

# KENYA INSTITUTE OF CURRICULUM DEVELOPMENT

A Skilled and Ethical Society

# JUNIOR SCHOOL CURRICULUM DESIGN GRADE 8

# PRE-TECHNICAL STUDIES FOR LEARNERS WITH HEARING IMPAIRMENT

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#### **FOREWORD**

The Government of Kenya is committed to ensuring that policy objectives for Education, Training and Research meet the aspirations of the Constitution of Kenya 2010, the Kenya Vision 2030, National Curriculum Policy 2019, the United Nations Sustainable Development Goals (SDGs) and the Regional and Global conventions to which Kenya is a signatory. Towards achieving the mission of Basic Education, the Ministry of Education (MoE) has successfully and progressively rolled out the implementation of the Competency Based Curriculum (CBC) at Pre-Primary, Primary and Junior School levels.

The implementation of Competency Based Curriculum involves monitoring and evaluation to determine its success. After the five-year implementation cycle, a summative evaluation of the primary education cycle was undertaken to establish the achievement of learning outcomes as envisaged in the Basic Education Curriculum Framework. The Government of Kenya constituted a Presidential working Party on Education Reforms (PWPER) in 2022 to address salient issues affecting the education sector. PWPER made far reaching recommendations for basic education that necessitated curriculum review. The recommendations of the PWPER, monitoring reports, summative evaluation, feedback from curriculum implementers and other stakeholders led to rationalization and review of the basic education curriculum.

The reviewed Grade 8 curriculum designs for learners with hearing impairment build on competencies attained by learners at Grade 7. Emphasis at this grade is the development of basic literacy, numeracy and skills for interaction with the environment.

The curriculum designs present National Goals of Education, essence statements, general and specific expected learning outcomes for the subjects as well as strands and sub strands. The designs also outline suggested learning experiences, key inquiry questions, core competencies, Pertinent and Contemporary Issues (PCIs), values, and assessment rubric.

It is my hope that all Government agencies and other stakeholders in Education will use the designs to plan for effective and efficient implementation of the CBC.

HON. EZEKIEL OMBAKI MACHOGU, CBS CABINET SECRETARY, MINISTRY OF EDUCATION

#### **PREFACE**

The Ministry of Education (MoE) nationally implemented Competency Based Curriculum (CBC) in 2019. Grade one is the first grade of Primary education level while Grade 6 is the final grade of the level in the reformed education structure.

The reviewed Grade 8 curriculum furthers implementation of the CBC from Grade 7 in Junior school level. The curriculum provides opportunities for learners to focus in a field of their choice to form a foundation for further education and training and/or gain employable skills. This is very critical in the realisation of the Vision and Mission of the on-going curriculum reforms as enshrined in the Sessional Paper No. I of 2019 whose title is: *Towards Realizing Quality, Relevant and Inclusive Education and Training for Sustainable Development* in Kenya. The Sessional Paper explains the shift from a content-focused curriculum to a focus on **nurturing every learner's potential.** 

Therefore, the Grade 8 curriculum designs for learners with hearing impairment are intended to enhance the learners' development in the CBC core competencies, namely: Communication and Collaboration, Critical Thinking and Problem Solving, Creativity and Imagination, Citizenship, Digital Literacy, learning to Learn and Self-efficacy.

The curriculum designs provide suggestions for interactive and differentiated learning experiences linked to the various sub strands and the other aspects of the CBC. They also offer several suggested learning resources and a variety of assessment techniques. It is expected that the designs will guide teachers to effectively facilitate learners to attain the expected learning outcomes for Grade 8 and prepare them for smooth transition to Grade 9. Furthermore, it is my hope that teachers will use the adapted designs to make learning interesting, exciting and enjoyable.

DR. BELIO KIPSANG', CBS PRINCIPAL SECRETARY STATE DEPARTMENT FOR BASIC EDUCATION MINISTRY OF EDUCATION

#### **ACKNOWLEDGEMENT**

The Kenya Institute of Curriculum Development (KICD) Act Number 4 of 2013 (Revised 2019) mandates the Institute to develop and review (*SNE adapt*) curricula and curriculum support materials for basic and tertiary education and training. The curriculum development process for any level of education involves thorough research, international benchmarking and robust stakeholder engagement. Through a systematic and consultative process, the KICD conceptualised the Competency Based Curriculum (CBC) as captured in the Basic Education Curriculum Framework (BECF)2017, that responds to the demands of the 21<sup>st</sup> Century and the aspirations captured in the Constitution of Kenya 2010, the Kenya Vision 2030, East African Community Protocol, International Bureau of Education Guidelines and the United Nations Sustainable Development Goals (SDGs).

KICD receives its funding from the Government of Kenya to facilitate successful achievement of the stipulated mandate and implementation of the Government and Sector (Ministry of Education (MoE) plans. The Institute also receives support from development partners targeting specific programmes. The revised Grade 8 curriculum designs for learners with hearing impairment were developed and adapted with the support of the World Bank through the Kenya Primary Education Equity in Learning Programme (KPEELP); a project coordinated by MoE. Therefore, the Institute is very grateful for the support of the Government of Kenya, through the MoE and the development partners for policy, resource and logistical support. Specifically, special thanks to the Cabinet Secretary-MoE and the Principal Secretary – State Department of Basic Education,

I also wish to acknowledge the KICD curriculum developers and other staff, all teachers, educators who took part as panellists; the Semi-Autonomous Government Agencies (SAGAs) and representatives of various stakeholders for their roles in the development and adaptation of the Grade 8 curriculum designs for learners with hearing impairment. In relation to this, I acknowledge the support of the Chief Executive Officers of the Teachers Service Commission (TSC) and the Kenya National Examinations Council (KNEC) for their support in the process of developing and adapting these designs. Finally, I am very grateful to the KICD Council Chairperson and other members of the Council for very consistent guidance in the process.

I assure all teachers, parents and other stakeholders that this curriculum design will effectively guide the implementation of the CBC at Grade -- and preparation of learners with hearing impairment for transition to Grade 9.

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PROF. CHARLES O. ONG'ONDO, PhD, MBS DIRECTOR/CHIEF EXECUTIVE OFFICER KENYA INSTITUTE OF CURRICULUM DEVELOPMENT

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#### NATIONAL GOALS OF EDUCATION

Education in Kenya should:

## i) Foster nationalism and patriotism and promote national unity.

Kenya's people belong to different communities, races and religions, but these differences need not divide them. They must be able to live and interact as Kenyans. It is a paramount duty of education to help young people acquire this sense of nationhood by removing conflicts and promoting positive attitudes of mutual respect which enable them to live together in harmony and foster patriotism in order to make a positive contribution to the life of the nation.

## ii) Promote the social, economic, technological and industrial needs for national development.

Education should prepare the youth of the country to play an effective and productive role in the life of the nation.

#### a) Social Needs

Education in Kenya must prepare children for changes in attitudes and relationships which are necessary for the smooth progress of a rapidly developing modern economy. There is bound to be a silent social revolution following in the wake of rapid modernization. Education should assist our youth to adapt to this change.

#### b) Economic Needs

Education in Kenya should produce citizens with the skills, knowledge, expertise and personal qualities that are required to support a growing economy. Kenya is building up a modern and independent economy which is in need of an adequate and relevant domestic workforce.

## c) Technological and Industrial Needs

Education in Kenya should provide learners with the necessary skills and attitudes for industrial development. Kenya recognizes the rapid industrial and technological changes taking place, especially in the developed world. We can only be part of this development if our education system is deliberately focused on the knowledge, skills and attitudes that will prepare our young people for these changing global trends.

## iii) Promote individual development and self-fulfilment

Education should provide opportunities for the fullest development of individual talents and personality. It should help children to develop their potential interests and abilities. A vital aspect of individual development is the building of character.

## iv) Promote sound moral and religious values.

Education should provide for the development of knowledge, skills and attitudes that will enhance the acquisition of sound moral values and help children to grow up into self-disciplined, self-reliant and integrated citizens.

## v) Promote social equality and responsibility.

Education should promote social equality and foster a sense of social responsibility within an education system which provides equal educational opportunities for all. It should give all children varied and challenging opportunities for collective activities and corporate social service irrespective of gender, ability or geographical environment.

# vi) Promote respect for and development of Kenya's rich and varied cultures.

Education should instil in the youth of Kenya an understanding of past and present cultures and their valid place in contemporary society. Children should be able to blend the best of traditional values with the changing requirements that must follow rapid development in order to build a stable and modern society.

## vii) Promote international consciousness and foster positive attitudes towards other nations.

Kenya is part of the international community. It is part of the complicated and interdependent network of peoples and nations. Education should therefore lead the youth of the country to accept membership of this international community with all the obligations and responsibilities, rights and benefits that this membership entails.

## viii) Promote positive attitudes towards good health and environmental protection.

Education should inculcate in young people the value of good health in order for them to avoid indulging in activities that will lead to physical or mental ill health. It should foster positive attitudes towards environmental development.

## LESSON ALLOCATION FOR JUNIOR SCHOOL

S/ No.	Learning Area	No. of	
		Lesson	
1	English for Learners with Hearing Impairment	5	
2	Kiswahili for Learners with Hearing Impairment / Kenyan Sign Language	4	
3	Mathematics for Learners with Hearing Impairment	5	
4	Religious Education	4	
5	Integrated Science for Learners with Hearing Impairment 5		
6	Agriculture & Nutrition for Learners with Hearing Impairment	4	
7	Social Studies for Learners with Hearing Impairment	4	
8	Creative Arts and Sports for Learners with Hearing Impairment	5	
9	Pre- technical Studies for Learners with Hearing Impairment	4	
10.	Pastoral/ Religious Instruction Programme	1	
	Total	41	

#### LEARNING OUTCOMES FOR JUNIOR SCHOOL

By end of Junior School, the learner should be able to:

- 1. Apply literacy, numeracy and logical thinking skills for appropriate self-expression.
- 2. Communicate effectively verbally, non-verbally and by use of sign language in diverse contexts.
- 3. Demonstrate social skills, spiritual and moral values for peaceful co-existence.
- 4. Explore, manipulate, manage and conserve the environment effectively for learning and sustainable development.
- 5. Practise relevant hygiene, sanitation and nutrition skills to promote health.
- 6. Demonstrate ethical behaviour and exhibit good citizenship as a civic responsibility.
- 7. Appreciate the country's rich and diverse cultural heritage for harmonious coexistence.
- 8. Manage pertinent and contemporary issues in society effectively.
- 9. Apply digital literacy skills for communication and learning.

#### ESSENCE STATEMENT

Pre-Technical Studies for learners with hearing impairment is an integrated learning area at junior school comprising of Pre-Technical Studies, Business Studies and Computer Studies. It covers Foundations of Pre-Technical and Business Studies, Communication in the work environment, materials of production, tools of production and entrepreneurship. Learning experiences have been adapted and broken down to smaller deliverable steps to aid learners with hearing impairment acquire critical thinking, problem solving, creativity, innovation, communication, digital literacy and financial literacy skills which are considered for their personal life and the world of work.

This subject is critical at this level as evidenced by the KICD needs assessment report, Kenya vision 2030, Sessional Papers No 1 of 2005 and No 1 of 2019 which recommended the promotion of technical and vocational education with an emphasis on science, technology and innovation (ST&I) in the school curriculum. It is also informed by the National ICT Policy of Kenya 2016 (revised 2020), UN Convention on rights of persons with disabilities, 2006 and the PWPER recommendations on the need for adaptation of the curriculum and assessment for learners with special needs and disabilities.

Pre-Technical Studies for learners with hearing impairment at the junior school level recognises that learning and development of competencies is influenced by social-cultural factors, developmental age, instructional opportunities and models as embraced by theories such as the Instructional Design Theory, Vygotsky's Social-Cultural Theory, Gardner's Multiple Intelligence Theory and Piaget's Theory of Cognitive Development. Others are accounting and entrepreneurship theories such as descriptive accounting theory, normative accounting theory and Innovation Theory by Schumpeter among others.

Further, this design has been adapted to ensure that learners who are Deaf and those with Hard of Hearing learn effectively. The adaptations include suggestions for provision of sign interpretation on aspects that require use of sound, use of digital devices with assistive technology, use of visual aids such as charts, maps and diagrams, use of hands-on activities, guided demonstrations, purposeful pairing and use of adapted learning resources. It has incorporated alternative learning outcomes and activities to enhance the acquisition of sign language vocabulary to learners with Hearing Impairments.

#### GENERAL LEARNING OUTCOMES

- 1. Create awareness on career choices in regard to career pathways and progressions for self-development (self-development)
- 2. Develop ability to communicate effectively through the use of sign language, information and communication technology innovations.
- 3. Apply the acquired competencies to select, use and maintain tools and materials in the production of goods and services.
- 4. Make effective use of financial and entrepreneurial competencies for prudent decision making in generation of wealth.
- 5. Apply acquired competencies on safety in the work environment to promote education for sustainable development.
- 6. Demonstrate an understanding of values and Pertinent and Contemporary Issues affecting society
- 7. Exhibit competencies in the use of digital skills in carrying out daily life activities.

# SUMMARY OF STRANDS AND SUB STRANDS

Strands	Sub Strands
1.0 Foundations of pre-technical studies	1.1 Fire and Data Safety
	1.2 Computer Hardware
	1.3 Consumer and Investor Protection
2.0 Communication	2.1 Business communication
	2.2 Plain scale drawing
	2.3 Visual programming
3.0 Materials for production	3.1 Composite Materials
	3.2 Ceramics
4.0 Tools and Production	4.1 Cutting Tools
	4.2 Production unit
5.0 Entrepreneurship	5.1 Bookkeeping
	5.2 Income and Budgeting
	5.3 Marketing goods and Services
	5.4 Saving and Investment

STRAND 1: FOUNDATION OF PRE-TECHNICAL STUDIES

Strand	Sub Strand	<b>Specific Learning Outcomes</b>	Suggested Learning Experiences	Suggested Key Inquiry Questions
Foundations of Pre- Technical and Business studies	1.1 Fire safety (Causes of fire in the environment, preventing fire in the environment, extinguishing fie in the environment.) (7 lessons)	By the end of the sub-strand, the learner should be able to:  a) sign terms related to fire safety in the environment,  b) identify the possible causes of fire in the environment,  c) explain ways of preventing fire in the work environment,  d) extinguish fires in the environment using appropriate methods,  e) acknowledge the need for fire safety in day-to-day life.	<ul> <li>In purposive groups, learners are guided to use print media and digital devices to list, fingerspell and sign key terms used in fire safety. (flammable substances, electrical faults, combustible material)</li> <li>In purposive groups, learners are guided to use personal experiences and testimonies to discuss possible causes of fire in the environment and present to plenary. Ensure learners are seated in an appropriate arrangement that supports use of bi lingual communication during the discussions with both the Hard of Hearing and Deaf learners. Also, provided</li> </ul>	<ol> <li>Why do we study fire safety?</li> <li>How is electronic data secured in the work environment?</li> </ol>

	Learners who are Hard of hearing should be provided with assistive hearing aids and be allowed to sit at the front.  • Learners are guided to make summary notes on the fire-fighting techniques. Ensure learners are provided with supplementary notes on fire-fighting techniques.  • In purposive groups, learners are guided to use print and non-print media to search information on types of threats of electronic data in the work environment.	
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# **Core competencies to be developed:**

- Critical thinking and problem solving: The learner acquires observation skills when following simple instructions to complete tasks while role playing firefighting techniques in the work environment.
- **Digital literacy:** The learner acquires interacting with technology skills when using digital devices to watch captioned video demonstrating fire extinguishing techniques in the environment

# Pertinent and Contemporary Issues (PCIs):

• Safety and Security: The learner demonstrates basic safety habits when role playing basic fire extinguishing techniques.

• **Disaster risk reduction:** The learner calls for help where there is a fire when role playing firefighting techniques in a workplace.

#### Values:

- **Responsibility**: The learner demonstrates self-drive when role playing firefighting techniques in the environment.
- **Respect:** The learner displays open mindedness when discussing ways of preventing fire in the environment.

## Link to other subjects:

- **Integrated Science:** The learner applies skills on preventing fire outbreak in the environment while carrying out First Aid measures for common laboratory accidents.
- **Kenya sign language:** The learner applies the skills on signing as they fingerspell and signs terminologies related to fire safety.

## Suggested learning resources

- Print and non-print media.
- Digital devices.
- Charts on safety rules and regulations in the environment.
- Safety gears.

Strand	Sub Strand	Specific Learning	Suggested Learning	Suggested Key
		Outcomes	Experiences	Inquiry Question(s)
1.0 Foundations	1.2 Data	By the end of the sub strand,	• In purposive groups, learners	How is data
of Pre-Technical	Safety	the learner should be able to:	are guided to use print media	protected in an
Studies		a) sign terms related to data	and digital devices to list,	electronic device?
	(4 lessons)	safety in the environment	fingerspell and sign key terms	
		b) outline the importance of	used in data safety. (Viruses,	
		data in an electronic	hacking, cyber security	
		device,	passwords, scanning, data,	
		c) explain threats to data in	electronic devices, antivirus)	
		an electronic device,	• In purposive groups, learners	
		d) describe ways of	are guided to use personal	
		protecting data in an	experiences and testimonies	
		electronic device,	to discuss importance of data	
		e) secure data in an	in an electronic device and	
		electronic device,	present to plenary.	
		f) acknowledge the need for	• In groups, learners are guided	
		data safety in day-to-day	to brainstorm on the meaning	
		life.	of data and information in an	
			electronic device.	
			• learners are guided to discuss	
			and make notes on the	
			meaning of data and	
			information in an electronic	
			device.	

In pairs, learners are guided to
use available resources to
search for the importance of
data in electronic devices.
<ul> <li>learners are guided to discuss</li> </ul>
and make notes on the
importance of data in an
electronic device.
• In purposive groups, learners
are guided to use print and
nonprint media to search for
information on threats to data
in electronic devices (virus
and unauthorised access).
• In groups, learners are guided
to discuss threats to data in
electronic devices (virus and
unauthorised access).
• In purposive groups, learners
are guided to use digital
devices to watch captioned
video clips on how to prevent
threats of electronic data. In
cases where videos are not
captioned, ensure the videos

are supported by sign
language interpretation and
pause to allow the learner
ample time to follow and
interpret the videos. Probe
with questions to elicit
response and enhance
comprehension.
• In pairs, learners are guided to
use print and non-print media
to search for ways of securing
data stored in a computer.
• In groups, learners are guided
to discuss techniques of
securing data in an electronic
device (use passwords; and
scan electronic devices using
antivirus).
In pairs, learners are guided to
discuss ways of securing data
stored in a computer. (Use of
passwords, backup, anti-
viruses).
• In purposive groups, learners
are guided to use appropriate
are garded to use appropriate

techniques to secure an electronic device possible threats usin available digital dev When learners are u digital devices cont the internet, it is im caution them about proper cyber ethics conducting online s  Learners are guided summary notes on v securing data stored computer and prese peers.	e against ag vices. asing ected to portant to observing while earches. to write vays of lin a
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## Core competencies to be developed:

- Critical Thinking and Problem Solving: learner acquires active listening and communication skills when discussing threats to data in electronic devices
- Digital Literacy: learner acquires skills of interacting with technology when using digital devices to secure electronic data in a user environment

## Values:

- Responsibility: learner engages in assigned roles and duties when securing electronic data in the workplace against possible threats.
- Respect: learner appreciates diverse opinions when brainstorming on the threats of electronic data in the work environment.

# **Pertinent and Contemporary Issues (PCIs):**

Cyber Security: learner enhances online safety when practising how to secure electronic data in the user environment.

# Link to other subjects:

Mathematics: learner relates data safety to data handling in mathematics.

Strand	Sub Strand	Specific Learning Outcomes	Suggested Learning Experiences	Suggested Key Inquiry Questions.
1.0 Foundations of Pre- Technical and Business studies	1.3 Consumer and investor protection (4 lessons)	By the end of the substrand, the learner should be able to:  a) sign terminologies related to consumer and investor protection in Kenya,  b) explain the importance of consumer and investor protection in Kenya,  c) analyse ways in which consumers and investors are protected in Kenya,  d) explore the Government financial regulators in Kenya,	<ul> <li>In purposive groups, learners are guided to use print and non-print media to list, fingerspell and sign terminologies used in consumer and investor protection.</li> <li>In pairs, learners are guided to use print and non-print media to search for the meaning of consumer and investor protection.</li> <li>In purposive groups, learners are guided to use digital devices, print and non-print media to search for information on the importance of consumer and investor protection in Kenya. When learners are using digital devices connected to the internet, it is important to caution them about observing</li> </ul>	<ol> <li>Why does the Government protect consumers and investors?</li> <li>How do consumers protect themselves from exploitation by traders?</li> </ol>

e) embrace how to protect oneself from exploitation.	proper cyber ethics while conducting online searches.  In pairs, learners are guided to discuss and present findings in plenary on the importance of consumer and investor protection in Kenya for peer review. Ensure the discussions are based on bi lingual communication to suit both Hard of Hearing and Deaf learners. Also, provided learners with guiding questions to moderate the discussion.  Learners are guided to make summary notes on the importance of consumer and

	which consumers and investors protect themselves.  In purposive groups, learners are guided to use print and nonprint media to search for ways in which consumers and investors are protected in Kenya.  In purposive groups, learners are guided to discuss and present their findings on ways in which the government protects consumers and investors.  In purposive groups, learners are guided to use digital devices to watch a captioned video clip on ways in which nongovernmental organisations protect consumers' and investors' concerns in Kenya. In case videos are not captioned, ensure they are
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	Government financial regulators in Kenya.  In purposive groups, discuss and present their findings in plenary on Government financial regulators in Kenya.
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# Core competencies to be developed:

- **Citizenship**: The learner develops governance skills when discussing and presenting on the meaning and importance of consumer and investor protection.
- Learning to learn: The learner acquires skills of organising and self-learning when searching for information on the importance of consumer and investor protection in Kenya.
- Communication and collaboration: The learner develops signing and observing skills as they fingerspell and sign terminologies used in consumer and investor protection.

#### Values:

- **Respect**: The learner shows patience when brainstorming and presenting on the meaning and importance of consumer and investor protection in Kenya.
- **Responsibility**: The learner shows resilience when searching for information on the importance of consumer and investor protection in Kenya.
- **Unity**: The learner cooperates with other members when sharing experiences on ways in which consumers and investors protect themselves.

## Pertinent and Contemporary Issues (PCIs):

- Safety and security: The learner follows parental guidelines when using the internet when using digital devices to search for information on the importance of consumer and investor protection in Kenya.
- **Learner support**: The learner demonstrates teamwork as they share experiences on ways in which consumers and investors protect themselves.
- **Human rights**: The learner identifies their rights as consumers when brainstorming and presenting on the meaning and importance of consumer and investor protection in Kenya.

## Links to other subjects:

- Social Studies: The learner applies the knowledge of human rights learnt in social studies as they brainstorming and presenting on the meaning and importance of consumer and investor protection in Kenya.
- **Kenya sign language:** The learners apply signing skills learnt in KSL as they fingerspell and sign terminologies related to consumer and investor protection.

# **Suggested Learning Resources**

- Print and non-print media.
- Digital devices.
- Excerpts from the constitution of Kenya

**Suggested Assessment rubric** 

<b>Level Indicator</b>	Exceeds Expectation	Meets Expectation	Approaches Expectation	Below Expectation
Ability to sign terms related to foundations of pre-technical studies.	Signs terms related to foundations of pretechnical with exceptional accuracy demonstrating signing proficiency.	Signs terms related to foundations of pretechnical accurately conveying the intended meaning clearly.	Signs terms related to foundations of pretechnical studies with noticeable errors and inconsistencies in articulation.	Signs terms related to foundations of pre-technical studies inaccurately and lacks clarity in articulation.
Ability to use firefighting techniques to stop fire in an environment	Uses firefighting techniques to stop fire in an environment adapting strategies and tactics based on changing circumstances.	Uses firefighting techniques to stop fire in an environment analysing the situation calmly and makes informed decisions based on established procedures.	Uses firefighting techniques to stop fire in an environment making basic decisions based on immediate cues, but may struggle with complex scenarios.	Uses firefighting techniques to stop fire in an environment hesitating or panics in decision-making situations, leading to ineffective actions.

Ability to apply measures to secure electronic data in the work environment.	Applies measures to secure electronic data proactively educates others on secure password practices and identifies potential password vulnerabilities.	Applies measures to secure electronic data using multi-factor authentication and password managers to enhance security.	Applies measures to secure electronic data employing strong passwords, avoids sharing them, and changes them regularly.	Applies measures to secure electronic data using weak or easily guessed passwords, shares passwords, or infrequently changes them.
Ability to use computer hardware devices to carry out a task.	Uses computer hardware devices to carry out a task demonstrating advanced proficiency in operating hardware devices with accuracy and efficiency.	Uses computer hardware devices to carry out a task demonstrating competence in operating hardware devices.	Uses computer hardware devices to carry out a task demonstrating basic proficiency in operating hardware devices, requiring assistance with troubleshooting.	Uses computer hardware devices to carry out a task. However, struggles to operate hardware devices effectively.
Ability to analyse ways in which consumers and investors are protected in Kenya	Analyses ways in which consumers and investors are protected providing insightful analysis.	Analyses ways in which consumers and investors are protected providing a clear analysis /	Analyses ways in which consumers and investors are protected presenting a basic analysis.	Analyses ways in which consumers and investors are protected inaccurately.

**STRAND 2: COMMUNICATION** 

Strand	Sub-Strand	Specific Learning Outcomes	Suggested Learning Experiences	Suggested Key Inquiry Questions.
2.0 Communication in Pre-Technical Studies	2.1 Plane Geometry (instruments used in drawing, layout of a drawing environment, construct combined shapes) (6 Lessons)	By the end of the sub strand, the learner should be able to: a) sign terms related to plane geometry, b) identify instruments used in drawing c) explain the layout of a drawing environment, d) construct combined shapes applied in drawing, e) embrace the use of plane geometry in drawing.	<ul> <li>In pairs, learners are guided to use print media and digital devices to list, fingerspell and sign terms related to plane geometry. (set squares, drawing set, straight edges and pencils, Point, line, plane and solid drawing surface, margins, title page)</li> <li>In pairs, learners are guided to use print media and digital devices to search for information on the instruments used in drawing,</li> <li>In groups, learners are guided to discuss and manipulate the instruments used in drawing (set squares, drawing set, straight edges and pencils),</li> <li>In pairs, learners are guided to observe captioned video clips,</li> </ul>	1. How are combined shapes applied in day-to-day life?  2. How can understanding geometric shapes support creative design solutions in real life situations?

how to construct combined shapes used in the work environment.  In pairs, learners are guided to practise to construct combined shapes used in the work environment. Pair learners who are Deaf with does who are Hard of hearing to allow effective communication.  In purposive groups, learners are guided to use electronic or print media to search for information on methods of dimensioning combined shapes. When learners are using electronic devices connected to the internet, it is important to caution them about observing proper cyber ethics while conducting online searches.  In purposive groups, learners are

geometry used in work
<ul><li>environment.</li><li>In pairs, learners are guided to use visual models of solids to identify</li></ul>
combined shapes. Pair learners who are Deaf with those who are Hard of hearing.
In pairs, learners are guided to practise how to dimension combined shapes in plane
geometry used in the work environment.
Learners are guided to develop a portfolio showing sketches and drawings of dimension combined
shapes in plane geometry used in the work environment and presented to peers for assessment.

- Communication and collaboration: The learner acquires team working skills when practising how to make combined shapes in plane geometry.
- Learning to learn: The learner develops organising skills when drawing combined shapes.

# **Pertinent and Contemporary Issues (PCIs):**

- Mental health: The learner enhances the ability to relate well with others when discussing how to draw combined shapes.
- Safety and Security: The learner enhances responsible online behaviour when using electronic media to search for information on combined shapes and the layout of a drawing environment.

#### Values:

- **Responsibility**: The learner develops accountability as they engage in assigned roles and duties during group activities like discussions and presentations on drawing combined shapes in plane geometry.
- **Respect**: The learner develops open mindedness as they appreciate diverse opinions when discussing how to draw combined shapes.

### Link to other subjects:

- Mathematics: The learner applies the construction skills learnt in mathematics as they perform geometrical construction.
- **Kenya sign language:** The learner applies the signing skills learnt in KSL as they fingerspell and sign terminologies related to plane geometry.

### **Suggested resources:**

set squares, drawing set, straight edges and pencils, digital devices, print media, papers, boards,

Strand	Sub Strand	Specific Learning	Suggested Learning Experiences	Key Inquiry
		Outcomes		Question
2.0 Communication	2.2 Dimensioning	By the end of this sub	<ul> <li>In groups, learners are guided</li> </ul>	Why is
in Pre-Technical		strand, the learner should	to use print and non-print	dimensioning
Studies	(10 lessons)	be able to:  a) Sign terms related to dimensioning, b) identify the types of dimensioning in drawing, c) draw lines	<ul> <li>media to search for the meaning of dimensioning as used in drawing,</li> <li>In groups, learners are guided to discuss the term dimensioning as used in drawing,</li> <li>In pairs, learners are guided to use print media and digital</li> </ul>	applied in drawings?
		used for dimensioning in drawing, d) dimension given shapes in drawings, e) embrace the importance of dimensioning in drawing.	devices to list, fingerspell and sign related to dimensioning. (linear, radial, angular, arc, forms of dimensioning, parallel, chain and combined, set squares, drawing set, straight edges and pencils, Point, line, plane and solid drawing surface, margins, title page)  In pairs, learners are guided to use print media and digital	

devices to search for types of
dimensioning in drawing
(linear, radial, angular, arc).
In purposive groups, learners
are guided to use visual aids to
categorize the types of
dimensioning in drawing
(linear, radial, angular, arc).
In pairs, learners are guided to
observe a captioned video clip
or a demonstration on drawing
lines used for dimensioning in
drawing,
In purposive groups, learners
are guided to draw types of
lines used in dimensioning.
• In pairs, learners are guided to
use print and nonprint media
to search for information on
forms of dimension.
In purposive groups, learners
are guided to use print and
non-print media to search
information on methods of
dimensioning drawings,

In groups the learners are guided to discuss the forms of dimensioning as used in drawing (parallel, chain and combined).
In pairs, learners are guided to observe captioned/signed video clips or demonstrations on techniques used to dimension given shapes in
drawings.  • In purposive groups, learners are guided to use appropriate techniques to dimension given shapes in drawings,
In purposive groups, learners are guided to develop a portfolio of the various dimensioned drawings.  In purposive groups, learners are did develop a portfolio of the various dimensioned drawings.
In pairs, learners are guided to discuss and make presentations to plenary on methods of dimensioning drawings. Ensure the discussions are based on bi

lingual communication to suit
both Hard of Hearing and
Deaf learners. Also, provided
learners with guiding
questions to moderate the
discussion.
Learners are guided to make
summary notes on methods of
dimensioning drawings.
Ensure learners are provided
with supplementary notes on
methods of dimensioning
drawings in plane geometry.

- Communication and collaboration: learner acquires team working skills when discussing how to dimension drawings.
- Learning to learn: learner develops organising skills when dimensioning shapes.

#### Values:

- Responsibility: learner engages in assigned roles and duties when dimensioning shapes.
- Respect: learner appreciates diverse opinions when discussing how to draw dimension lines.

# **Pertinent and Contemporary Issues (PCIs):**

Social cohesion: learners work together harmoniously when discussing how to dimension drawings.

### Link to other subjects

Mathematics: learner relates dimensioning skills to measurement in Mathematics.

Strand	Sub Strand	Specific Learning Outcomes	Suggested Learning Experiences	Suggested Key Inquiry Question(s)
Communication in Pre-Technical Studies	2.3 Plain Scale Drawing (6 lessons)	By the end of the sub strand, the learner should be able to: a) sign terms related to plain scale drawing used in drawing, b)describe the features of a plain scale used in drawing, c)interpret a plain scale used in drawing, d) draw plane figures to a given scale, e)appreciate the use of plain scale drawing in the work environment.	<ul> <li>In purposive groups, learners are guided to watch a video or observe a demonstration on how to sign terms related to plain scale drawing used in drawing.</li> <li>In pairs, learners are guided to use print media and digital devices to list, fingerspell and sign terms related to plain scale as used in drawing.</li> <li>In purposive groups, learners are guided to use print and nonprint media to search for the meaning of plain scale as used in drawing.</li> <li>In purposive groups, learners are guided to discuss the term plain scale as used in drawing.</li> <li>Ensure the discussions are based on bilingual communication to suit both the</li> </ul>	<ol> <li>What is the importance of drawing figures to scale?</li> <li>How are plane figures drawn to scale?</li> </ol>

Hard of Hearing and deaf
learners.
Learners to be guided to use
print media and digital
devices to search for
information about the
features of a plain scale,
<ul> <li>In purposive groups,</li> </ul>
learners are guided to use
print media and digital
devices to search for
instruments used to
construct a plain scale.
• In purposive groups,
learners are guided to watch
a demonstration on how to
use drawing instruments to
construct a plain scale.
<ul> <li>In pairs, learners are guided</li> </ul>
to use drawing instruments
to construct a plain scale.
Ensure the learner is
provided with a one-on-one
demonstration for this
activity.

	In pairs, learners are providing with a one-onone demonstration on how to read plain scales.  Using appropriate sitting arrangement, learners are guided to discuss how to read plain scales.  In groups, learners are guided to identify drawings drawn to different scales using digital devices and visual aids. Ensure the visual aids are captioned or be provided with sign language interpretation.  In purposive groups, learners are guided to practice drawing plane figures to a given plain scale.
Core competencies to	ha davalonad•

- Learning to Learn: learner acquires the skill to reflect on own work when practicing drawing of plane figures to a given plain scale.
- **Self-Efficacy**: learner acquires intrinsic self-motivation when drawing plane figures to scale.

#### Values:

- Unity: learner enhances cooperation with peers when discussing how to read plain scales.
- Responsibility: learner demonstrates self-drive when practicing drawing plane figures to a given plain scale.

# Pertinent and contemporary issues (PCIs):

**Peer education and mentorship:** learner develops inter personal relationship and group dynamics skills while discussing how to read plain scales.

# **Link to Other Subjects:**

**Mathematics:** learner relates skills of scale drawing to linear scale in Mathematics.

# **Suggested learning resources**

- Digital devices.
- Print and non-print media
- Pencils, chalk,
- Rulers, tape measures, carpenter's tape measure
- Books, plain papers.
- Rubbers

Strand	Sub strand	Specific Learning Outcomes	Suggested Learning Experiences	Suggested Key Inquiry Questions.
2.0 Communication in the work environment	2.3 Visual Programming (types of visual programming, features of visual programming, solve problems using visual programming) (14 lessons)	By the end of the sub strand, the learner should be able to: a) sign terms related to visual programming applied in day-to-day activities, b) identify types of visual programming, applications used to solve problems in day-to-day life, c) explore the features of visual programming applications used in the work environment, d) create instructions to solve problems using visual programming application,	<ul> <li>In purposive groups, learners are guided to use print and non-print media to list, fingerspell, sign and find meanings of terminologies used in visual programming.         (syntax, variables, input output statements, coding, coding blocks, sequence statement, repeating statement, selection statement, variable declarations)</li> <li>Learners are guided to make summary notes on meanings of terminologies used in visual programming. Ensure learners are provided with supplementary notes on meanings of terminologies used in visual.</li> <li>In purposive groups, learners are guided to use print and non-print media to search for meaning of</li> </ul>	<ol> <li>How are computer programs used in daily life?</li> <li>Why are features of visual programming important in networking?</li> </ol>

e) value the importance of visual programming to solve problems in day-to-day life.	visual programming' and 'visual programming application.  In pairs, learners are guided to discuss and present their findings on the meaning of visual programming' and 'visual programming application. Ensure learners are seated in an appropriate arrangement that supports use of bi lingual communication during the discussions with both the Hard of Hearing and Deaf learners. Also, provided learners with guiding questions to moderate the discussion.  In purposive groups, learners are guided to use digital devices to search for information on types of visual programming applications. (Educational, Multimedia, Video games)  When learners are using digital devices connected to	

the internet, it is important to
caution them about observing
proper cyber ethics while
conducting online searches.
<ul> <li>In purposive groups, learners are</li> </ul>
guided to discuss and present
their findings on types of visual
programming applications. (Educational, Multimedia, Video
games)
• In purposive groups, learners are
guided to use digital devices to
watch videos on examples of
visual programming applications.
(Microsoft Make Code, Scratch,
Sprite box) In cases where videos
are not captioned, ensure the videos are supported by sign
language interpretation and pause
to allow the learner ample time to
follow and interpret the videos
Probe with questions to elicit
response and enhance
comprehension.

<ul> <li>Learners are guided to make summary notes on types of visual programming applications. (Educational, Multimedia, Video games) Ensure learners are provided with supplementary notes on types of visual programming applications.</li> <li>In purposive groups, learners are guided to use print and non-print media to search for features of visual programming applications used in the work environment.</li> <li>In purposive groups, learners are guided to discuss and present their findings on features of visual programming applications. (Input, processing, output, effects such as sound, animations and background</li> <li>Learners are guided to make summary notes on features of visual programming applications. (input, processing, output, effects</li> </ul>

Core competencies to be developed:	<ul> <li>such as sound, animations and background)  Ensure learners are provided with supplementary notes on features of visual programming applications.</li> <li>In purposive groups, learners are guided use digital devices to watch captioned video clips on how to use visual programming software to create instructions in the work environment.</li> <li>In purposive groups, learners are guided to discuss and present their findings on how to use visual programming software to create instructions in the work environment.</li> <li>In purposive groups, learners are guided to practise the use of visual programming software to create instructions in the work environment.</li> </ul>
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- **Communication and Collaboration:** The learner develops team working skills when discussing the features of a visual programming application.
- Critical thinking and problem solving: The learner develops open mindedness and creativity skills when applying effects such as sound, animations, background in a program

#### Value:

• **Responsibility:** The learner engages in assigned roles and duties when using visual programming software to create instructions in the work environment.

### Pertinent and Contemporary Issues (PCIs):

- **Safety and Security**: The learner practices responsible online behaviour when using digital devices to search for information on types of visual programming applications.
- **Peer Education**: The learner enhances interpersonal relationships when brainstorming on the meaning of the terms 'visual programming' and 'visual programming application.

### Link to other subjects:

• **Kenyan sign language:** The learners apply the skills on signing as they fingerspell and sign terminologies to visual programming.

## **Suggested Learning Resources**

- Print media such as magazine and newspaper cutting.
- Digital devices such as smartphones, laptops and computers.
- Visual programming applications. (*Microsoft Make Code, Scratch, Sprite box*)
- Resource persons.

**Suggested Assessment rubric** 

Indicator	<b>Exceeds Expectations</b>	<b>Meets Expectations</b>	Approaches Expectations	Below Expectations
Ability to sign terms related to visual programming.	Signs terms used in visual programming with exceptional accuracy demonstrating signing proficiency.	Signs terms related to visual programming accurately conveying the intended meaning clearly.	Signs terms related to visual programming with noticeable errors and inconsistencies in articulation.	Signs terms related to visual programming inaccurately and lacks clarity in articulation.
Ability to construct regular combined shapes applied in day-to-day life	Constructs regular combined shapes demonstrating exceptional creativity in utilizing the chosen combined shape.	Constructs regular combined shapes demonstrating some creativity and effectively integrates the chosen shape.	Constructs regular combined shapes lacking originality or fails to fully utilize the chosen shape's potential.  Presentation may be	Constructs regular combined shapes lacking clear connection to the chosen shape. Presentation is

	Presentation is clear, engaging, and uses visuals effectively.	Presentation is organized and informative.	unclear or visually uninteresting.	disorganized or difficult to understand.
Ability to use visual programming application to create instructions to solve problems in day-to-day life.	Uses visual programming application to create instructions to solve problems incorporating innovative approaches to problem-solving.	Uses visual programming application to create instructions to solve problems producing a functional and well-designed solution.	Uses visual programming application to create instructions to solve problems providing a functional solution lacking originality or creativity.	Uses visual programming application to create instructions to solve problems producing an incomplete.

STRAND 3: MATERIALS FOR PRODUCTION

Strand	Sub strand	Specific Learning Outcomes	<b>Suggested Learning Experiences</b>	Suggested Key Inquiry Questions
3.0 Materials for production	3.1 Composite materials (identify composite materials, composition of composite materials, uses of composite materials) (7 lessons)	By the end of the sub strand, the learner should be able to: a) sign of terms used for composite materials, b) identify composite materials in the locality, c) describe the composition of composite materials in the locality, d) relate composite materials to their use in a work environment, e) acknowledge the importance of composite materials used in the locality.	<ul> <li>In purposive groups, learners are guided to use print and nonprint media to list, fingerspell and sign key terms used for composite materials.</li> <li>In purposive groups, learners are guided to use print and nonprint media to search and identify composite materials.</li> <li>In purposive groups, learners are guided to discuss and present their findings to the plenary on composite materials. Ensure learners are seated in an appropriate arrangement that supports use of bi lingual communication during the discussions with both the Hard of Hearing and Deaf learners. Also, provided learners with</li> </ul>	<ol> <li>How can composite materials be identified?</li> <li>Why are composite materials important to society?</li> </ol>

composition of composite materials.  In purposive groups, learners are guided to use print and non- print media to search for information on the uses of composite materials in a work environment.  In purposive groups, learners are guided to use digital devices to watch captioned video clips on the uses of composite materials in a work environment.  In cases where videos are not captioned, ensure the videos are supported by sign language interpretation and pause to allow the learner ample time to follow and interpret the videos. Probe
ample time to follow and interpret the videos. Probe with questions to elicit response and enhance comprehension.

<ul> <li>In pairs, learners guided to discuss uses of composite materials in a work environment and make summary notes.         Ensure learners are provided with supplementary notes on uses of composite materials in a work environment.</li> <li>In purposive groups, learners are guided to develop a chart and match composite materials to their uses in the work environment.         Ensure the charts are of large prints and minimized the amount of text to allow other learners with hearing impairment to synthesize the information on the chart.</li> <li>In purposive groups, learners are guided to visit a nearby workplace in the locality to explore the uses of composite materials.</li> </ul>

	Ensure the learners who are deaf are provided with sign language interpretation during the visit.  Learners can also interact with the resource persons or the community through written questions and gestures  Learners who are Hard of hearing should be provided with assistive hearing aids which can aid help them interact with the community.  In purposive groups, learners are guided to write a summary report on uses of composite materials in the locality.
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- Communication and collaboration: The learner acquires team working skills when discussing the constituent materials of composites in groups.
- **Digital literacy:** The learner demonstrates interactive with technology skills when using digital devices to search for information on the composition of composite materials.

#### Values:

- Social justice: The learner is democratic when discussing the constituent materials of the composites.
- **Peace**: The learner has respect for diversity when visiting workplaces in the locality to explore the uses of composite materials.

# Pertinent and Contemporary Issues (PCIs):

- Internet safety and security: The learner avoids harmful or illegal content when using digital media to search for information on the composition of composite materials
- Learner support: The learner improves ability to manage time when visiting workplaces in the locality to explore the uses of composite materials

### Link to other subjects:

- **Integrated science:** The learner is able to apply the knowledge of waste management as they visit a nearby workplace to explore the uses of composite materials.
- **KSL:** The learners apply the signing skills as they fingerspell and sign key terms used for composite materials.

### **Suggested Learning Resources**

- Print and non-print media.
- Digital resources.
- Charts of composite materials.
- Concrete, bricks, manufactured boards, stone, papier-mâché and plastic-coated paper

Strand	Sub Strand	Specific Learning outcomes	Suggested Learning Experiences	Suggested Key Inquiry Questions
	3.2 Ceramic Materials  (common ceramic materials, physical properties, uses of ceramic materials) (7 lessons)	By the end of the sub strand, the learner should be able to: a) sign key terms used in ceramics in the locality, b) identify common ceramic materials in the locality, c) describe the physical properties of ceramic materials in the locality, d) relate ceramic materials to their use in a work environment e) acknowledge the importance of ceramic materials used in the locality.	<ul> <li>In pairs, learners are guided to use digital devices to list, fingerspell and sign key terms used in ceramics.</li> <li>In purposive groups, learners are guided to use digital devices to watch captioned videos on examples of ceramic materials found in the environment.         <ul> <li>In cases where videos are not captioned, ensure the videos are supported by sign language interpretation and pause to allow the learner ample time to follow and interpret the videos. Probe with questions to elicit response and enhance comprehension.</li> </ul> </li> </ul>	<ol> <li>How are ceramic materials identified?</li> <li>Why are ceramic materials important to society?</li> </ol>

• In purposive groups, learners	
are guided to tour the school environment to collect ceramic materials within the school locality. (Pottery, ceramic utensils, glass, shells tiles).  In purposive groups, learners are guided to fingerspell and sign ceramic materials collected within the school.  In purposive groups, learners are guided to use print and non-print media to search for the physical properties of ceramic materials they have collected.  In pairs, the learners are guided to discuss and make presentations to the plenary on the physical properties of ceramic materials in the locality. (brittleness, fire resistance, heat resistance,	

	are provided with supplementary notes on the uses of ceramic materials in a work environment.  In purposive groups, learners prepare charts matching ceramic materials to their uses in the work environment and present for peer assessment. Ensure the charts are of large prints and minimized the amount of text to allow other learners with hearing impairment to synthesize the information on the chart.	
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- Critical thinking and problem solving: The learner acquires evaluation and decision-making skills when collecting items made of ceramic materials in the locality.
- **Citizenship**: The learner demonstrates social cultural sensitivity and awareness when visiting workplaces in the locality to explore the uses of ceramic materials.

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- **Responsibility:** The learner engages in assigned roles and duties when collecting items made of ceramic materials in the locality.
- Unity: Learner collaborates with others when using a chart to match ceramic materials with their use in the work environment.

# Pertinent and Contemporary Issues (PCIs):

- **Safety**: The learner enhances detection of potentially dangerous materials when investigating the physical properties of ceramic materials.
- **Learner protection**: The learner takes care of themselves when collecting items made of ceramic materials in the locality.

### Link to other subjects:

- **Integrated Sci**ence: The learner applies the knowledge of chemical and physical properties of substances as they investigate the physical properties of ceramic materials.
- Kenyan sign language: The learner applies the signing skills as they fingerspells and signs terms related to ceramics.

### learning resources:

- Digital devices.
- Print and non-print media.
- Locally available resources such as broken tiles and glasses.
- Charts- matching ceramic materials to their work

**Suggested Assessment Rubric** 

Indicator	Exceeds expectation	Meets expectation	Approaches expectation	Below expectation
Ability to sign terms related to ceramics	Signs terms used in ceramics as a learning area with exceptional accuracy demonstrating signing proficiency.	Signs terms related to ceramics as a learning area accurately conveying the intended meaning clearly.	Signs terms related to ceramics as a learning area with noticeable errors and inconsistencies in articulation.	Signs terms related to ceramics as a learning area inaccurately and lacks clarity in articulation.
Ability to relate composite materials to their use in a work environment.	Relates composite materials to their use, explaining the key physical and mechanical properties of each chosen composite material in relation to their work environment applications.	Relates composite materials to their use, explaining the basic properties of each chosen composite material in relation to their work environment applications.	Relates composite materials to their use in a work environment providing limited explanation of material properties, lacking detail or accuracy.	Relates composite materials to their use, demonstrating weak understanding of material properties or fails to connect them to work environment applications.
Ability to relate ceramic materials to their use in a work environment.	Relate ceramic materials to their use demonstrating a deep understanding of	Relate ceramic materials to their use providing an accurate and informative	Relate ceramic materials to their use providing information with some accuracy,	Relate ceramic materials to their use providing inaccurate, misleading

ceramic materials and their work environment applications through accurate and detailed explanations.	explanations of ceramic materials and their applications in the environment.	and may have minor factual errors or lack detail. Applications.	information, or lacks supporting evidence.
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STRAND 4: TOOLS AND PRODUCTION

Strand	Sub strand	Specific Learning Outcomes	Suggested Learning Experiences	Suggested Key Inquiry Question(s)
4.0 Tools and production	4.1 Cutting tools (identify cutting tools, select cutting tools for given tasks, use cutting tools to perform specific tasks) (15 lessons)	By the end of the sub strand, the learner should be able to: a) sign terms used in cutting tools in the environment, b) identify cutting tools used in the work environment c) select cutting tools for given tasks in a workplace, d) use cutting tools to perform a given task, e) care for cutting tools in the work environment, f) recognise the importance of cutting tools in the work environment.	<ul> <li>In purposive groups, learners are guided to use print and non-print media to search for the meanings list, fingerspell and sign terms related to cutting tools.</li> <li>In groups learners are guided to use digital devices to search for information about cutting tools.</li> <li>In groups, learners are guided to use digital devices to watch videos or captioned video clips or view pictures that show how cutting tools are employed in the work environment. (snips, chisels, handsaws, planes, hacksaws, scrappers, knives, strippers, cutters. In cases where videos are not captioned, ensure the videos are supported by sign language interpretation and pause to allow the learner ample time to follow</li> </ul>	<ol> <li>How are cutting tools used?</li> <li>Why are cutting tools cared for?</li> </ol>

	and interpret the videos. Probe with questions to elicit response and enhance comprehension.  In pairs, learners are guided to discuss and match each cutting tool with its functions in the work environment.  In purposive groups, learners are guided to use digital devices to watch videos on the uses of cutting tools in the work environment.  In purposive groups, learners are guided to discuss and make summary notes on the uses of cutting tools in the work environment. Ensure learners are seated in an appropriate arrangement that supports use of bi lingual communication during the discussions with both the Hard of Hearing and Deaf learners. Also, provided learners with guiding questions to moderate the discussion.
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<ul> <li>In purposive groups, learners are guided to use print and non-print media to search for information on safety precautions applied when using cutting tools.</li> <li>In pairs, learners are guided to practise using appropriate cutting tools found in the locality to complete assigned tasks, all while adhering to safety precautions.</li> <li>In pairs, learners are guided to practise proper way to care for cutting tools after use in the work environment.</li> <li>In purposive groups, learners are guided to use digital devices to search for information about the importance of cutting tools in the work environment. When learners are using digital devices connected to the internet, it is important to</li> </ul>
caution them about observing proper cyber ethics while conducting online searches.

	• Learners are guided to make summary notes on the importance of cutting tools in the work environment. Ensure learners are provided with supplementary notes on the importance of cutting tools on the work environment.
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- Learning to learn: The learner acquires the skill of working collaboratively with others when discussing the use of cutting tools in the work environment.
- Critical Thinking and Problem Solving: The learner acquires evaluation and decision-making skills when demonstrating safe use of cutting tools in performing specific tasks.

#### Values:

- **Responsibility**: The learner observes safety precautions when using cutting tools available to perform given tasks
- Unity: The learner respects other people's opinions when discussing the use of cutting tools in the work environment

#### **Pertinent and Contemporary Issues (PCIs):**

- Safety and Security: The learner adheres to simple safety rules when demonstrating safe use of cutting tools to perform specific tasks
- Mental health: The learner relates well with others when discussing the use of cutting tools in the work environment
- Peer Education: The learner practices cutting skills when carrying out given tasks using cutting tools

# Link to other subjects:

• Agriculture and Nutrition: The learner is able to relate the skills of tool while preparing site for planting in agriculture and nutrition.

- Print and non-print media
- Cutting tools like as knife, hacksaw, axe snips, chisels, handsaws, planes, hacksaws, scrappers, knives, strippers, cutters

Strand	Sub Strand	Specific Learning Outcomes	<b>Suggested Learning Experiences</b>	Suggested Key Inquiry
3.0 Tools and Production	4.2 Computer Software (functions of software, perform tasks using software) (12 lessons)	By the end of the sub strand, the learner should be able to: a) identify the categories of computer software used in a workplace, b) explain the functions of different application software in the workplace, c) use computer software to perform tasks in day-to-day life, d) acknowledge the importance of application software in the workplace.	<ul> <li>In purposive groups, the learners are guided to use print and non-print media to search for meaning of the term 'computer software' and present to peers</li> <li>In purposive groups, learners are guided to watch video clips or watch a demonstration on how to sign terms related to computer software.</li> <li>In purposive groups, learners are guided to use print and non-print media to list, fingerspell and sign terminologies related to computer software (system software, application software, word processing, presentation, spreadsheets)</li> </ul>	Question(s)  1. How are computer software used in day-to-day life?  2. Why is computer software important?

In pairs, learners are guided to use available resources to search for information about different computer software.  Ensure the resources are adapted to fit the needs of a learner with hearing impairment.
• In purposive groups, learners are guided to use available resources to search for information on categories of computer software (system software, application software).
<ul> <li>In purposive groups, learners are guided to discuss categories of computer software (system software, application software).</li> <li>In groups, learners are guided to use available resources to search for information on the functions of different application software (word</li> </ul>

	processing, presentation, spreadsheets), In groups learners are guided to brainstorm on the functions of different application software (word processing, presentation, spreadsheets), In purposive groups, learners are guided to observe demonstrations on performing tasks using different application software (word processing, presentation, spreadsheet).
	processing, presentation,
Core Commeter size to be devel	software (word processing, presentation, spreadsheet).

- Digital Literacy: learner develops creating with technology skills when performing tasks using different application software.
- Learning to Learn: learner develops relationships by sharing what they have learnt with peers when discussing categories of computer software.

### Values:

**Integrity**: learner exhibits fairness by giving equal opportunities to peers when brainstorming functions of application software.

### **Pertinent and Contemporary Issues (PCIs):**

Peer Education and Mentorship: learner develops interpersonal relationships while they brainstorm on the functions of different application software.

# Link to other subjects

English: the learner uses application software to edit documents.

- Digital devices.
- Print and non-print media.
- Computer software- word processing, presentation, spreadsheets, system software, application software
- Resource persons

**Suggested Assessment Rubric** 

Indicator	Exceeds expectation	Meets expectation	Approaches expectation	Below expectation
Ability to sign terms related to cutting tools in a work environment	Sign terms related to cutting tools in a work environment with exceptional accuracy demonstrating signing proficiency.	Sign terms related to cutting tools in a work environment accurately conveying the intended meaning clearly.	Sign terms related to cutting tools in a work environment with noticeable errors and inconsistencies in articulation.	Sign terms related to cutting tools in a work environment inaccurately and lacks clarity in articulation.
Ability to analyse the factors determining the size of a business unit	Analyses the factors determining the size of a business unit proficiently demonstrating exceptional accuracy.	Analyses the factors determining the size of a business unit.	Analyses the factors determining the size of a business unit leaving out some details.	Analyses the factors determining the size of a business unit inaccurately.
Ability to use cutting tools to perform a given task	Uses cutting to perform a given task maintaining complete control of cutting tools throughout the task, prioritizing safety at all times. Uses	Uses cutting tools to perform a given task following safety precautions effectively, minimizing potential risks.	Uses cutting tools to perform a given task. However, struggles to maintain control of tools, requiring reminders or assistance.	Uses cutting tools ignoring safety protocols or exhibits lack of control over tools, posing significant safety hazards.

	proper body mechanics and posture.			
Ability to care for cutting tools in the work environment	Cares for cutting tools in the work environment by sharpening tools regularly and correctly using appropriate sharpening techniques.	Cares for cutting tools in the work environment by Sharpening tools effectively.	Cares for cutting tools in the work environment by sharpening tools inconsistently or incorrectly, or requires reminders to perform maintenance.	Cares for cutting tools in the work environment neglecting tool sharpening or maintenance, leading to decreased performance and potential safety hazards.

**STRAND 5: ENTREPRENEURSHIP** 

Strand	Sub-Strand	Specific Learning Outcomes	Suggested Learning Experiences	Suggested Key Inquiry Questions
5.0 Entrepreneurship	5.1 Book keeping (Importance of bookkeeping, preparing simple financial statements for a business, financial records (12 lessons)	By the end of the substrand, the learner should be able to: a) sign terms used in book keeping, b) explain the importance of bookkeeping in entrepreneurship, c) classify business transactions in bookkeeping, d) prepare simple financial statements for a business, e) keep financial records for effective decision making,	<ul> <li>In purposive groups, learners are guided to use print and non-print media to identify key terms, their signs and definitions as used in bookkeeping.</li> <li>In purposive groups, learners are guided to use print and non-print media to search for importance of book keeping for a business.</li> <li>In purposive groups, learners are guided to discuss and present their findings on meaning of basic terms used in bookkeeping. Ensure learners are seated in an appropriate arrangement that supports use of bi lingual communication during the discussions with both the Hard of Hearing and Deaf learners. Also, provided learners with guiding</li> </ul>	<ol> <li>Why is bookkeeping important to a business?</li> <li>How are the statements of financial position, cash flow and income prepared?</li> </ol>

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f) appreciate the importance of financial records for a business.	<ul> <li>questions to moderate the discussion.</li> <li>In purposive groups, learners are guided to discuss and present their findings to the plenary on the importance of book keeping for a business.</li> <li>Learners are guided to write summary notes on the importance of book keeping for a business. Ensure learners are provided with supplementary notes on importance of book keeping for a business.</li> <li>In purposive groups, learners are guided to use print and non-print media to search for information on the difference between cash and credit transactions.</li> <li>In purposive groups, learners are guided to watch captioned videos on samples of transactions.</li> <li>In pairs, learners are guided to make summary notes classifying</li> </ul>	

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transactions as either cash or credit. Ensure learners are provided with supplementary notes on classification of transactions.  In purposive groups, learners are guided to sign-read and analyse a case study on cash and credit transactions.  In purposive groups, learners are guided to use both print and digital devices to familiarise themselves with the book keeping equation.  In pairs, learners are guided to observe one on one demonstrations on how to calculate assets, liabilities and capital using the bookkeeping equation.  In purposive groups, learners are guided to calculate assets, liabilities and capital using the bookkeeping equation.

	<ul> <li>In purposive groups, learners are guided to prepare a checklist and visit a nearby shop to determine the cost and price of a given product to calculate profit and loss.         Ensure the learners who are deaf are provided with sign language interpretation during the visit.         Learners can also interact with the resource persons or the community through written questions and gestures.         Learners who are Hard of hearing should be provided with assistive hearing aids which can aid help them interact with the community.     </li> <li>In purposive groups, learners are guided to use print and non-print media search for examples of simple financial statements.</li> <li>In purposive groups, learners are guided to observe a demonstration on how to prepare a financial</li> </ul>
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statement. Demonstration may be
from the teacher, resource person,
videos or animations.
In pairs, learners are guided to
prepare simple financial
statements and present to the
plenary for peer assessment.
In purposive groups, learners are
guided to use print and no print
media to search for information on
components of a statement of
financial position, cash flow and
income statement.
In purposive groups, learners are
guided to discuss and make
summary notes on the components
of a statement of financial position,
cash flow and income statement.
Ensure learners are seated in an
appropriate arrangement that
supports use of bi lingual
communication during the
discussions with both the Hard of
Hearing and Deaf learners. Also,

	provided learners with guiding questions to moderate the discussion.  • In purposive groups, learners are guided to draw and present simple statements of financial position, cash flow and income for a business	
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- Learning to learn: The learner acquires skills of organising, self-learning and works collaboratively when preparing statements of financial position, cash flow and income.
- Critical thinking and problem-solving: The learner acquires evaluation and decision-making skills when calculating assets, liabilities and capital using the bookkeeping equation.
- **Communication and collaboration**: The learner develops writing, speaking, listening, reading and teamwork skills when discussing, brainstorming and presenting on the components of statement of financial position, cash flows and income.
- **Self-efficacy**: The learner develops effective communication skills when discussing, presenting and preparing statements of financial position, cash flow and income.

#### Values:

- **Peace**: The learner works harmoniously with members of the team when brainstorming and presenting the meaning, basic terms and importance of bookkeeping for a business in learning activities.
- **Responsibility**: The learner shows hard work as they perform tasks assigned when discussing the components of a statement of financial position, cash flows and income statement.
- **Respect**: The learner shows regard for the input of every member of the team when discussing the components of a statement of financial position, cash flow and income statement.

# Pertinent and Contemporary Issues (PCIs):

- **Financial literacy**: The learner enhances bookkeeping skills when drawing and presenting simple statements of financial position, cash flow and income for a business.
- Career Guidance: The learner identifies career opportunities when brainstorming and presenting basic terms and importance of bookkeeping for a business.

# Link to other subjects:

- Mathematics: The learner relates mathematical formulas while calculating assets, liabilities and capital using the bookkeeping equation.
- **Kenyan sign language:** The learners apply the signing skills as they fingerspell and sign terms related to bookkeeping as a learning area.

- Print and non-print media
- Digital devices
- Sample financial statements,
- Sample financial records

Strand	Sub Strand	Specific Learning Outcomes	Suggested Learning Experiences	Suggested Key Inquiry Questions
5.0 Entrepreneurship	5.2 Income and Budgeting (sources of income for an individual, importance of budgeting, financial management using a simple budget, ethical and unethical practices in budgeting) (9 lessons)	By the end of the sub strand, the learner should be able to: a) sign terms related to income and budgeting, b) identify sources of income for an individual, c) explain the importance of budgeting in day-to-day life, d) prepare a simple budget for personal finance management, e) explore ethical and unethical practices in budgeting, f) practice financial planning in income management.	<ul> <li>In pairs, the learners are guided to use print and non-print media to list, fingerspell, sign and find the meaning of terms related to income and budgeting.</li> <li>In purposive groups, learners are guided to use print and non-print media to search sources of income of an individual.</li> <li>In pairs, learners are guided to make presentations to the plenary on the findings on sources of income for an individual.</li> <li>In pairs, learners are guided to use digital devices to search for</li> </ul>	<ol> <li>Why is it important to prepare a personal budget?</li> <li>Why are the ethical issues in income and budgeting important?</li> </ol>

information about the importance of budgeting in day-to-day life. When learners are using digital devices connected to the internet, it is important to caution them about observing proper cyber
ethics while conducting online searches.  In purposive groups, learners are guided to discuss the importance of budgeting in day-to-day life. Ensure learners are seated in an appropriate arrangement that supports use of bi lingual communication during the discussions with both the Hard of Hearing and Deaf learners. Also, provided learners with

guiding questions to moderate the discussion.  • Learners are guided to write notes on the importance of budgeting in day-to-day life. Ensure learners are provided with supplementary notes on types of visual
importance of budgeting in day-to-day life. Ensure learners are provided with supplementary notes on types of visual
programming applications.  In purposive groups, learners are guided to use digital devices to watch captioned videos on how
to prepare a simple budget for personal finance management. In cases where videos are not captioned, ensure the videos are supported by
sign language interpretation and pause to allow the learner

ample time to follow and interpret the videos. Probe with questions to elicit response and enhance comprehension.  In pairs, learners are guided to prepare a simple budget for personal finance management on charts. Ensure the charts are of large prints and minimise the amount of text to allow other learners with hearing impairment to synthesise the information on the chart.
• In purposive groups learners are guided to use print and non-print media to search for information
on ethical and unethical practices in budgeting.

		• In pairs, learners are guided to write essays and make presentations on ethical and unethical practices in budgeting. (During presentations; Ensure the learners who are deaf are provided with sign language interpretation and assistive hearing aids)	
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- Communication and collaboration: The learner acquires signing and observing skills as they fingerspell and sign terms related to budgeting.
- Critical thinking and problem solving: The learner acquires evaluation skills when preparing a simple personal budget.

#### Values:

- **Integrity**: The learner develops ethical practices when budgeting and spending money.
- **Responsibility**: The learner performs tasks assigned when presenting on the ethical and unethical practices in budgeting to peers.
- Respect: The learner appreciates diverse opinions when sharing experiences on the sources of income for an individual.

## **Pertinent and Contemporary Issues (PCIs):**

• Financial literacy: The learner enhances bookkeeping skills when preparing a simple personal budget

• Mental health: The learner relates well with others when discussing and presenting on ways of spending money wisely

### Link to other subjects:

- **Kenyan sign language:** The learners apply signing skills as they fingerspell and sign terms related to income and budgeting.
- **English:** The learner is able to relate the skills used in expository writing as they prepare a simple budget.

# suggested learning resources:

- Print and non-print media.
- Digital devices.
- Captioned video clips.
- Sample budgets

Strand	Sub Strand	Specific Learning Outcomes	Suggested Learning Experiences	Key Inquiry Questions
5.0 Entrepreneurship	of goods and services  (Importance of marketing to a business, sources of information about a business for customers, selecting a suitable market for goods and services, tools to market goods and services.)  (8 lessons)	By the end of the sub strand, the learner should be able to: a) sign terms related to marketing of goods and services, b) explain the importance of marketing to a business, c) analyse the sources of information about the market for its potential customers, d) explore factors considered when selecting a suitable market for goods and services, e) select tools to market goods and services,	<ul> <li>In purposive groups, learners are guided to use print and non-print media to list, fingerspell and sign key terms related to marketing of goods and services.</li> <li>In purposive groups, learners are guided to use print and non-print media to search the meaning and importance of marketing to a business.</li> <li>In purposive groups, learners are guided to discuss and present their findings to the plenary on the meaning and importance of marketing. Ensure learners are seated in an appropriate arrangement that supports use of bi lingual communication during the discussions with both the</li> </ul>	<ol> <li>How do we select a market for goods and services?</li> <li>Why is information about the market and its potential customers important?</li> </ol>

f) recognise suitable markets for goods and services.	Hard of Hearing and Deaf learners. Also, provided learners with guiding questions to moderate the discussion  • Learners are guided to write summary notes on the meaning and importance of marketing to a business. Ensure learners are provided with supplementary notes on the meaning and importance of marketing to a business.  • In purposive groups, learners are guided to use digital devices to search for sources of information about the market for its potential customers.  • In purposive groups, learners are guided to discuss and present their findings on sources of information about

the market for its potential customers.  Learners are guided to write summary notes on sources of information about the market. Ensure learners are provided with supplementary notes on types of visual programming applications  In purposive groups, learners are guided to use print and non-print media to search for factors considered when selecting a suitable market for goods and services.  In purposive groups, learners are guided to discuss and present their findings on factors considered when selecting a suitable market for goods and services.  In purposive groups, learners are guided to discuss and present their findings on factors considered when selecting a suitable market for goods and services.  In purposive groups, learners are guided to sign-read and analyse a case study on
and you a case study on

	factors considered when selecting a suitable market for goods and services.  • Learners are guided to write summary notes on factors considered when selecting a suitable market for goods and services. Ensure learners are provided with supplementary notes on factors considered when selecting a suitable market for goods and services.  • In purposive groups, learners are guided to use digital devices to search and present information on ICT platforms used in marketing of goods and services.  When learners are using digital devices connected to the internet, it is important to
	caution them about observing

proper cyber ethics while conducting online searches.  In purposive groups, learners are guided to debate on various ICT platforms available for marketing goods and services.  In pairs, learners are guided to discuss and make summary notes on ICT platforms for marketing goods and services.  Ensure learners are provided with supplementary notes on types of visual programming applications.	
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- Communication and collaboration: The learner acquires signing, and observing skills when presenting on the meaning and importance of marketing.
- **Digital literacy**: The learner acquires skills of connecting and interacting with digital technology when searching and presenting information on ICT platforms used in marketing of goods and services.
- **Critical thinking and problem solving**: The learner acquires research and explanation skills when searching and presenting information on sources of information about the market and its potential customers.

#### **Values**

- **Respect**: The learner shows regard for self and others when discussing and presenting on the meaning and importance of marketing.
- Peace: The learner displays tolerance when discussing and presenting on the meaning and importance of marketing.
- **Responsibility**: The learner shows accountability when searching and presenting information on ICT platforms used in marketing of goods and services.

## **Pertinent and Contemporary Issues (PCIs)**

- **Financial Literacy**: The learner enhances marketing skills when reading and analysing a case study on factors considered when selecting a suitable market for goods and services.
- **Safety and Security**: The learner observes online safety guidelines when using digital devices to search and present information on ICT platforms used in marketing of goods and services.

## Link to other subjects:

- Social Studies: The learner applies the knowledge of trans Saharan trade as they explore markets for various goods and services.
- Kenyan sign language as the learner fingerspell and sign terms related to marketing of goods and services.

- Print and no print media
- Digital devices

Strand	Sub Strand	Specific Learning Outcomes	Suggested Learning Experiences	Suggested Key Inquiry Question(s)
5.0 Entrepreneurship	5.2 Distribution of Goods and Services (role of intermediaries in distribution of goods and service, channels for distributing goods and services, ethics in distribution of goods and services.) (7 lessons)	By the end of the sub strand, the learner should be able to:  a) Sign terms related to distribution of goods and services,  b) explain the role of intermediaries in the distribution of goods and services,  c) illustrate the channels for distributing different goods and services in business,  d) analyse ethics in distribution of goods and services,	<ul> <li>In purposive groups, learners are guided to use print and nonprint media to list, fingerspell and sign key terms related to distribution of goods and services.</li> <li>In purposive groups, learners are guided to use print and nonprint media to search the meaning and importance of distribution of goods and services.</li> <li>In purposive groups, learners are guided to discuss and present their findings to the plenary on the distribution of goods and services. Ensure learners are seated in an appropriate arrangement that supports use of bi lingual communication during the discussions with both the Hard</li> </ul>	<ol> <li>How is the distribution of goods and services carried out in day-to-day life?</li> <li>Which ethical issues influence distribution of goods and services?</li> </ol>

e) value the need for distribution of goods and services in the community.	of Hearing and Deaf learners. Also, provided learners with guiding questions to moderate the discussion.  In purposive groups, learners are guided to use print and nonprint media to search the meaning of channels of distribution and intermediaries in distribution of goods and services,  In groups, learners are guided to discuss and present the meaning of channels of distribution and intermediaries in distribution of goods and services.  In purposive groups, learners are guided to search from available resources the role of intermediaries in distribution of goods and services to the consumer.

distributing different goods and services.  • In purposive groups, learners are guided to prepare a chart on channels for distribution of different goods and services,  • In purposive groups, learners
are guided to read and discuss stories on different distribution channels for goods and services,  In purposive groups, learners
are guided to debate on ethical and unethical practices on distribution of goods and services.

- Digital Literacy: learner acquires the skills of interacting with digital devices when watching and listening to video clips on channels for distributing goods and services.
- Critical Thinking and Problem Solving: learner acquires interpretation and inference skills when debating on ethical issues in distribution of goods and services.

#### Values:

- Respect: learner develops regard for self and others when discussing the meaning of channels of distribution and role of intermediaries in the distribution of goods and services.
- Peace: learner displays tolerance and respect for others when debating on ethical issues on distribution of goods and services.

# **Pertinent and Contemporary Issues:**

• Social Cohesion: learner improves on their interpersonal relationships when debating on ethical issues on distribution of goods and services.

# Links to other subjects:

• Social Studies: learner enhances knowledge on trade when learning about distribution of goods and services.

- Print and nonprint media
- Digital devices.
- chart on channels for distribution of different goods and services.
- Resource persons.

# Suggested assessment rubric

Indicator	<b>Exceeds expectation</b>	Meets expectation	Approaches	Below expectation
			expectation	
Ability to sign terms related to entrepreneurship.	Sign terms related to entrepreneurship with exceptional accuracy demonstrating signing proficiency.	Sign terms related to entrepreneurship accurately conveying the intended meaning clearly.	Sign terms related to entrepreneurship with noticeable errors and inconsistencies in articulation.	Sign terms related to entrepreneurship inaccurately and lack clarity in articulation.
Ability to classify business transactions in bookkeeping	Classifies all transactions accurately into the appropriate account types without errors. Identifying and correcting mistakes independently	Classifies all transactions accurately into the appropriate account types without errors.	Classifies all transactions making some errors requiring significant assistance or correction.	Classifies transactions making frequent errors in classification, demonstrating limited understanding of account types.
Ability to prepare simple financial statements for a business	Prepares simple financial statements accurately and complete, with no missing entries or unbalanced figures.	Prepares simple financial statements mostly accurate and complete, with minor errors.	Prepares simple financial statements with frequent errors in entries or calculations, requiring significant assistance to achieve complete and balanced statements.	Prepares simple financial statements inaccurately or incomplete, failing to reflect the provided data accurately.

Ability to analyse sources of information about the market for its potential customers	Analyses sources of information about the market for its potential customers employing a wide range of relevant and reliable information sources.	Analyses sources of information about the market for its potential customers.	Analyses sources of information about the market for its potential customers relying on limited or somewhat irrelevant information sources.	Analyses sources of information about the market for its potential customers using inaccurate or unreliable information sources, leading to flawed analysis.
Ability to prepare a simple saving plan for personal finance management.	Prepares a simple saving plan for personal finance management defining SMART goals (Specific, Measurable, Achievable, Relevant, and Timebound) for desired savings milestones.	Prepares a simple saving plan for personal finance management Setting specific and measurable goals with a defined timeframe.	Prepares a simple saving plan for personal finance management with goals that may be incomplete or unclear, lacking precision or target dates.	Prepares a simple saving plan for personal finance management with goals that are vague or unrealistic, offering little direction or motivation.
Ability to illustrate the channels for distributing different goods and services in business.	illustrates different types of channels for distributing different goods and services in business	illustrates the channels for distributing different goods and services in business	illustrates the channels for distributing different goods and services in business with notable lack of precision in the choice of channels	illustrates unrealistic channels for distributing different goods and services in business

#### APPENDIX 1: GUIDELINES FOR INTEGRATING COMMUNITY SERVICE LEARNING (CSL)

#### Introduction

In Grade 8, learners will undertake an integrated Community Service Learning (CSL) project of choice from a single or combined subject. The CSL project will enable the learner to apply knowledge and skills from other subjects to address a problem in the community. The implementation of the integrated CSL project will take a Whole School Approach, where all members of the school community including teachers, school administration, parents/guardians/ local community and support staff. It will be a collaborative effort where the teacher of Social Studies coordinates and works with other subject teachers to design and implement the integrated CSL projects. The teachers will select a theme drawn from different Learning Areas and the broader categories of Pertinent and Contemporary Issues (PCIs) for the CSL project. It should also provide an opportunity for development of core competencies and nurturing of values. Learners will undertake **one common** integrated class CSL project following a 6-step milestone approach as follows:

Milestone	Description
Milestone 1	Problem Identification  Learners study their community to understand the challenges faced and their effects on community members. Some of the challenges in the community can be:  Environmental degradation  Lifestyle diseases, Communicable and non-communicable diseases  Poverty  Violence and conflicts in the community  Food security issues
Milestone 2	Designing a solution

	Learners create an intervention to address the challenge identified.
Milestone 3	Planning for the Project Learners share roles, create a list of activities to be undertaken, mobilize resources needed to create their intervention and set timelines for execution
Milestone 4	Implementation The learners execute the project and keep evidence of work done.
Milestone 5	Showcasing /Exhibition and Report Writing Exhibitions involve showcasing learners' project items to the community and reflecting on the feedback Learners write a report detailing their project activities and learnings from feedback
Milestone 6	Reflection Learners review all project work to learn from the challenges faced. They link project work with academic concepts, noting how the concepts enabled them to do their project as well as how the project helped to deepen learning of the academic concepts.

**NOTE:** The milestones will be staggered across the 3 terms of the academic calendar.

## **Assessment of CSL integrated Project**

Assessment for the integrated CSL project will be conducted formatively. The assessment will consider both the process and end product. This entails assessing each of the milestone stages of the integrated CSL class project. It will focus on 3 components namely: skills from various learning areas applied in carrying out the project, core competencies developed and values nurtured.

APPENDIX 2: LIST OF ASSESSMENT METHODS, LEARNING RESOURCES AND NON-FORMAL ACTIVITIES.

Strands	Sub Strands	Suggested Assessment Methods	Suggested Learning Resources	Suggested Non-Formal Activities
1.0 Foundations of pre-technical studies	1.1 Fire and Data Safety	<ul> <li>Oral/signed         Question and         Answer</li> <li>Observation</li> <li>Written test</li> <li>Practical work</li> <li>peer and self-assessment</li> </ul>	<ul> <li>Approved textbooks</li> <li>workshop rules and regulations on fire safety</li> <li>Firefighting equipment</li> <li>Posters and flyers</li> <li>Charts and pictures</li> <li>Digital devices such as; desktop computer, laptop, smart phone, tablets</li> </ul>	<ul> <li>Role playing</li> <li>Health club, First Aid clubs, St. John's         Ambulance         community sensitisation on fire, and data safety and best practices     </li> <li>Field visit activities</li> </ul>
	1.2 Computer Hardware	<ul> <li>Oral/signed     Question and     Answer</li> <li>Observation</li> <li>Written test</li> <li>Practical work</li> <li>learner's profile</li> </ul>	<ul> <li>computer hardware</li> <li>Approved textbooks</li> <li>Internet connectivity</li> <li>video and audio clips</li> <li>Charts and pictures</li> </ul>	<ul> <li>community sensitisation on the use of computer hardware</li> <li>Field visits</li> </ul>

		• peer and self-		
		assessment		
		<ul> <li>portfolio</li> </ul>		
2.0 Communication	2.1 Business	<ul> <li>Oral/signed</li> </ul>	<ul><li>posters</li></ul>	<ul> <li>community sensitisation</li> </ul>
	communication	Question and	<ul><li>photographs</li></ul>	• role playing
		Answer	<ul><li>pictures</li></ul>	• drama and music festivals
		<ul> <li>Observation</li> </ul>	<ul> <li>Business Studies</li> </ul>	<ul> <li>club and societies</li> </ul>
		<ul> <li>Written test</li> </ul>	handbook	activities
		<ul> <li>Practical work</li> </ul>	<ul> <li>Digital resources</li> </ul>	• field visits
		<ul> <li>Peer and self-</li> </ul>	<ul> <li>Approved</li> </ul>	<ul> <li>project activities</li> </ul>
		assessment	Textbooks	
			• Charts, brochures	
	2.2 Plain scale	Oral/signed	<ul> <li>Drawing books,</li> </ul>	Learners visit a nearby
	drawing	Question and	• Pencils,	workshop or a TVET
		Answer	<ul> <li>Geometrical</li> </ul>	institution to observe and
		<ul> <li>Observation</li> </ul>	instruments,	record how plain scale
		<ul> <li>Written test</li> </ul>	• Ruler	drawing is done and how it is
		<ul> <li>Practical work</li> </ul>	<ul> <li>Digital devices such</li> </ul>	used in the locality.
		<ul> <li>peer and self-</li> </ul>	as; computer, laptop,	
		assessment	smart phone, tablets	
		<ul> <li>portfolio</li> </ul>	among others	
	2.3 Visual	Oral/signed	<ul> <li>Digital devices,</li> </ul>	<ul> <li>Community presentations</li> </ul>
	programming	Question and	<ul><li>Apps</li></ul>	on how to navigate the
		Answer	<ul> <li>productivity tools,</li> </ul>	visual programming
		<ul> <li>Observation</li> </ul>		applications

		<ul> <li>Written test</li> <li>Practical work</li> <li>peer and self-assessment</li> <li>portfolio</li> </ul>	<ul> <li>visual programming tools,</li> <li>computer software (OS, Utility software and Application programs)</li> <li>Internet</li> <li>video and audio clips</li> </ul>	<ul> <li>sensitise communities on the use of visual programming</li> <li>Club and society activities</li> </ul>
3.0 Materials for production	3.1 Composite Materials	<ul> <li>Oral/signed Question and Answer</li> <li>Observation</li> <li>Written test</li> <li>Practical work</li> <li>peer and self-assessment</li> <li>portfolio</li> </ul>	<ul> <li>Concrete, bricks, manufactured boards, stone, papermâché and plastic-coated paper among others</li> <li>Digital devices, Approved books Internet, video, audio clips, models, checklists.</li> </ul>	Learners go round the compound and the nearby community and collect available composite materials and write down how each is used by the local community
	3.2 Ceramics	<ul> <li>Oral/signed     Question and     Answer</li> <li>Observation</li> <li>Written test</li> </ul>	Earthenware, stoneware and porcelain among others	Learners visit a nearby workshop to observe and record how ceramics are used to make different gadgets

40.77		<ul> <li>Practical work</li> <li>peer and self-assessment</li> <li>portfolio</li> </ul>	<ul> <li>Career brochures, career magazines</li> <li>Digital devices such as; computer, laptop, smart phone, tablets</li> </ul>	
4.0 Tools and Production	4.1 Cutting Tools	<ul> <li>Oral/signed         Question and         Answer</li> <li>Observation</li> <li>Written test</li> <li>Practical work</li> <li>peer and self-assessment</li> <li>Portfolios</li> </ul>	<ul> <li>Snips, chisel, handsaw, planes, hacksaw, scrappers, knives, strippers and scissors.</li> <li>Digital devices such as; computer, laptop, smart phone, tablets</li> </ul>	Learners visit a nearby home to observe and record how cutting tools are used in the family and local community
	4.2 Production unit	<ul> <li>Oral/signed Question and answer</li> <li>learner's profile</li> <li>written tests</li> <li>observation</li> <li>Peer and self-assessment</li> </ul>	<ul> <li>Approved textbooks</li> <li>Digital devices,</li> <li>brochures</li> <li>pictures</li> <li>charts</li> <li>Workplaces in the society</li> </ul>	<ul><li>Field visits activities</li><li>Business clubs</li></ul>

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5.0 Entrepreneurship	5.1 Bookkeeping	Portfolio	• Approved textbook	Business clubs
		Oral/signed	<ul> <li>Digital resources</li> </ul>	<ul> <li>School mentorship</li> </ul>
		Question and	Resource persons	programs
		answer	<ul> <li>Sample financial</li> </ul>	
		• learner's profile	records	
		<ul> <li>written tests</li> </ul>		
		<ul> <li>observation</li> </ul>		
		<ul> <li>Peer and self-</li> </ul>		
		assessment		
	5.2 Income and	Portfolio	<ul> <li>Approved textbook</li> </ul>	<ul> <li>Business clubs</li> </ul>
	Budgeting	<ul> <li>Oral/signed</li> </ul>	<ul> <li>Digital resources</li> </ul>	<ul> <li>School mentorship</li> </ul>
		Question and	• Resource persons	programs
		answer	• Sample personal	1 0
		• learner's profile	budget template	
		• written tests	• Realia like <i>piggy</i>	
		<ul> <li>observation</li> </ul>	banks and money	
		Peer and self-	boxes	
		assessment		

5.3 Marketing	Portfolio	<ul> <li>Approved textbooks</li> </ul>	Business clubs
goods and	<ul> <li>Oral/signed</li> </ul>	<ul> <li>Digital devices,</li> </ul>	<ul> <li>School mentorship</li> </ul>
Services	Question and	<ul><li>brochures</li></ul>	programmes
	answer	<ul><li>pictures</li></ul>	• Academic field visits to
	• learner's profile	• charts	local markets
	• written tests	<ul><li>flyers</li></ul>	<ul> <li>trade fairs and shows</li> </ul>
	<ul> <li>observation</li> </ul>	<ul><li>brochures</li></ul>	
	<ul> <li>Peer and self-</li> </ul>	<ul> <li>newspapers and</li> </ul>	
	assessment	magazines	
5.4 Saving and	<ul> <li>Portfolio</li> </ul>	<ul> <li>Approved textbooks</li> </ul>	Academic field visits
Investment	<ul> <li>Question and</li> </ul>	• Digital devices,	<ul> <li>Business clubs and</li> </ul>
	answer	<ul><li>brochures</li></ul>	societies
	• learner's profile	<ul><li>pictures</li></ul>	<ul> <li>school mentorship</li> </ul>
	<ul><li>written tests</li></ul>	• charts	programmes
	<ul> <li>observation</li> </ul>	• flyers	
	<ul> <li>Peer and self-</li> </ul>	<ul><li>brochures</li></ul>	
	assessment	<ul> <li>newspapers and</li> </ul>	
		magazines	