

REPUBLIC OF KENYA MINISTRY OF EDUCATION

JUNIOR SCHOOL CURRICULUM DESIGN

PRE-TECHNICAL STUDIES

FOR LEARNERS WITH HEARING IMPAIRMENT

GRADE 9

First	published	2024
1.11.21	published	2U2 1

All rights reserved. No part of this book may be reproduced, stored in a retrieval system or transcribed, in any form or by any means, electronic, mechanical, photocopy, recording or otherwise, without the prior written permission of the publisher.

ISBN:

Published and printed by Kenya Institute of Curriculum Development

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 9 curriculum designs for learners with hearing impairment build on competencies attained by learners at Grade 8. 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 9 curriculum furthers implementation of the CBC from Grade 8 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 9 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 9 and prepare them for smooth transition to Grade 8. 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 21st 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 9 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 9 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 9 and preparation of learners with hearing impairment for transition to Grade 10.

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

TABLE OF CONTENTS

FOREWORD	Error! Bookmark not defined.
PREFACE	Error! Bookmark not defined.
ACKNOWELEDGEMENT	Error! Bookmark not defined.
TABLE OF CONTENTS	iv
NATIONAL GOALS OF EDUCATION	v
LEARNING OUTCOMES FOR JUNIOR SCHOOL	ix
ESSENCE STATEMENT	Error! Bookmark not defined
SUBJECT GENERAL LEARNING OUTCOMES	xi
SUMMARY OF STRANDS AND SUB STRANDS	Xii
STRAND 1.0: FOUNDATIONS OF PRE-TECHNICAL STUDIES	1
STRAND 2.0: COMMUNICATION IN PRE-TECHNICAL STUDIES	
STRAND 3.0: MATERIALS FOR PRODUCTION	24
STRAND 4.0: TOOLS AND PRODUCTION	33
STRAND 5.0: ENTREPRENEURSHIP	46
APPENDIX 1: GUIDELINES FOR INTEGRATING COMMUNITY SERVICE LEARNING	G (CSL) PROJECT64
APPENDIX 2: SUGGESTED ASSESSMENT METHODS, SUGGESTED LEARNING RES	OURCES AND NON-FORMAL
ACTIVITIES	68

NATIONAL GOALS OF EDUCATION

Education in Kenya should:

1. 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.

2. 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 the wake of rapid modernisation. 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 recognises 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.

3. 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.

4. 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.

5. Promote social equity 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.

6. 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.

7. 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.

8. 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 and conservation. It should lead the youth of Kenya to appreciate the need for a healthy environment.

LESSON ALLOCATION AT 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 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 and non-verbally, 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 co-existence.
- 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.

SUBJECT GENERAL LEARNING OUTCOMES

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

- 1. Communicate effectively through the use of information and communication technology.
- 2. Select and use tools and materials in the production of goods and services.
- 3. Use financial and entrepreneurial competencies for prudent decision making.
- 4. Observe safety in the immediate environment to promote education for sustainable development.
- 5. Apply ICT skills to carry out activities in day-to-day life.
- 6. Create awareness on career choices in regard to career pathways and progression for self-development.

SUMMARY OF STRANDS AND SUB STRANDS

Strands	Sub Strands	Suggested Number of Lessons
1.0 Foundations of Pre-Technical	1.1 Safety on Raised Platforms	8
Studies	1.2 Handling Hazardous Substances	9
	1.3 Self-Exploration and Career Development	6
2.0 Communication in Pre-	2.1 Oblique Projection	14
Technical Studies	2.2 Visual Programming	15
3.0 Materials for Production	3.1 Wood	8
	3.2 Handling of Waste Materials	8
4.0. Tools and Production	4.1 Holding Tools	8
	4.2 Driving Tools	8
	4.3 Project	20
5.0 Entrepreneurship	5.1 Financial Services	4
	5.2 Government and Business	6
	5.3 Business Plan	6
Total Number of Lessons		120

Note: The suggested number of lessons per Sub Strand may be less or more depending on the context.

STRAND 1.0: FOUNDATIONS OF PRE-TECHNICAL STUDIES

Strand	Sub Strand	Specific Learning Outcomes	Suggested Learning Experiences	Suggested Key Inquiry Question(s)
1.0 Foundations of Pre-Technical Studies	1.1 Safety on Raised Platforms (8 lessons)	By the end of the sub strand, the learner should be able to: a) sign terms related to safety on raised platforms used in a workplace, b) identify types of raised platforms used in performing tasks, c) describe risks associated with working on raised platforms, d) observe safety when working on raised platforms, e) appreciate the need for observing safety	 In purposive groups, learners are guided to watch signed video clips or observe a demonstration on how to sin terms related to safety on raised platforms used in a workplace. In pairs, learners practise how to fingerspell and sign terms related to safety on raised platforms used in a workplace. In purposive groups, learners are guided to tour the school compound or use digital devices to identify raised platforms used in a workplace and present to plenary. (ladders, trestles, steps, stands, work benches, ramps) In purposive groups, the learners are guided to discuss types of raised platforms used in day- to -day life. Ensure 	What is the importance for observing safety when working on raised platforms?

while working on	learners are seated in an	
raised platforms.	appropriate arrangement that	
1	supports use of bi lingual	
	communication during the.	
	Also, provided learners with	
	guiding questions to moderate	
	the discussion.	
	• In purposive groups, the	
	learners are guided to use	
	digital or print media to search	
	for information on risks	
	associated with working on	
	raised platforms.	
	• In purposive groups, the	
	learners are guided to discuss	
	and make summary notes on	
	risks associated with working	
	on raised platforms. Ensure	
	learners are provided with	
	supplementary notes on risks	
	associated with working on	
	-	
	raised platforms. In purposive groups, the learners are guided to use print	

and digital devices to search for
practices for safe working on
raised platforms.
• In pairs, the learners are guided
to use print and non-print media
to discuss ways of minimising
risks related to working on
raised platforms in the
workplace.
The learners are guided to write
summary notes on practices for
safe working on raised
platforms. Ensure learners are
provided with supplementary
notes on practices for safe
*
working on raised platforms.
• In purposive groups, the
learners are guided to perform
tasks to practise safe working
practises on raised platforms in
school and home localities.
• In purposive groups, the
learners are guided to visit a
nearby workplace to observe

equipment (PPEs).
platforms. Ensure learners are dressed in personal protective
are guided to work on raised
In purposive groups, learners
community.
aid them interact with the
assistive hearing aids which can
hearing should be provided with
Learners who are Hard of
questions and gestures.
community through written
the resource persons or the
Learners can also interact with
interpretation during the visit.
are provided with sign language
Ensure learners who are deaf
working on raised platforms.
safety precautions when

- Communication and collaboration: The learner develops teamwork skills when discussing and presenting on ways of minimising risks and dangers related to working on raised platforms in workplaces.
- Critical Thinking and Problem Solving: learner decides and makes inference as they perform tasks to practise safe working practises on raised platforms in school and home localities

• Digital Literacy: learner interacts with and manipulates digital devices as they use audio visual aids to observe risks associated with working on raised platforms.

Values:

- Unity: learner develops positive relationships as they interact and share learning aids.
- Love: learner cares for others to avoid injury as they perform tasks to practise safe working practises on raised platforms in school and home localities.
- Responsibility: learner cares for properties as they visit a nearby workplace to observe safety precautions when working on raised platforms.

Pertinent and Contemporary Issues (PCIs):

Disaster Risk Reduction: learner acquires skills for mitigating risks when working on raised platforms.

Link to other subjects:

Integrated Science: learner enhances knowledge on safety when discussing ways of minimising risks related to working on raised platforms.

- Print media
- Captioned Video clips and visual aids
- Digital devices such as phones, laptops and desktops.
- Ladders, trestles, steps, stands, work benches, ramps.
- Personal protective equipment (PPEs)

Strand	Sub Strand	Specific Learning	Suggested Learning Experiences	Suggested
		Outcomes		Key Inquiry Question(s)
1.0 Foundations of pre -technical studies	1.2 Handling Hazardous Substances (9 lessons)	By the end of the sub strand, the learner should be able to: a) sign terms related to handling hazardous substances in the immediate environment, b) identify hazardous substances found in the immediate environment, c) classify hazardous substances found in the locality, d) describe safe ways of handling hazardous substances in the immediate environment, e) handle hazardous substances safely in the immediate environment, f) appreciate the importance of observing safety when handling	 In purposive groups, learners are guided to watch signed videos or observe demonstration on how to sign terms related to handling hazardous substances in the immediate environment. In pairs, learners practise how to fingerspell and sign terms related to handling hazardous substances in the immediate environment. In purposive groups, learners are guided to use print and digital resources to search for information on hazardous substances and present for peer assessment. (Poisonous, flammable, corrosive) In purposive group, learners are guided to explore the locality to identify hazardous substances in the locality. In purposive groups, learners are guided to develop charts to group substances as either poisonous, 	1. Why are hazardous substances in the immediate environment labelled? 2. How are hazardous substances handled in the immediate environment?

hazardous substances in	flammable or corrosive. Let the
the immediate	charts be of large print and
environment.	minimized texts to allow learners
	interpret with ease.
	Using appropriate sitting
	arrangement that allows bi lingual
	communication, learners are guided
	to discuss safe ways of handling
	hazardous substances in the
	immediate environment.
	In purposive groups, learners are
	guided to read and interpret
	instructions on the conditions for
	use of hazardous substances.
	Under the tutelage of a resource
	person, learners are guided to visit
	a nearby workplace within the
	locality to learn more about safe
	handling of poisonous, flammable
	and corrosive substances. Ensure
	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 them interact with the community. Also, learners should put on their personal protective equipment (PPEs). In pairs, learners are guided to participate in safe handling of poisonous, flammable and corrosive substances in the immediate environment. Remind learners to put on protective gears that support the use of sign language and facial expressions.	
--	--	--

- Digital Literacy: learner acquires digital skills when using digital devices to search for information on hazardous substances.
- Communication and Collaboration: learner develops speaking, listening and self-expression skills when discussing safe ways of handling hazardous substances.
- Learning to learn: learner develops the skill of sharing learnt knowledge when discussing safe ways of handling hazardous materials.

Values:

Respect: learner appreciates diverse opinions as they discuss safe ways of handling hazardous substances in the immediate environment.

Pertinent and Contemporary Issues (PCIs):

• Disaster Risk Reduction: learner's ability to identify hazards is enhanced when discussing safe ways of handling hazardous substances in the immediate environment.

Link to other subjects

Integrated Science: learner enhances knowledge on laboratory safety as they exercise safe ways of handling hazardous substances.

- Digital devices such as smart phones
- Newspapers
- Resource persons
- Safety labels and manuals
- Personal protective equipment (PPEs)
- Charts

Strand	Sub Strand	Specific Learning	Suggested Learning Experiences	Suggested Key
		Outcomes		Inquiry Question(s)
1.0 Foundations of Pre-Technical Studies	1.3 Self- Exploration and Career Development (6 lessons)	By the end of the sub strand, the learner should be able to: a) sign terms related to self-exploration and career development for business purposes, b) explain ways of nurturing talents and abilities for self-development in school, c) relate talents and abilities to career pathways in day-to-day life, d) analyse ethical and unethical practices related to the use of talents and abilities in the community, e) choose a career based on talents and abilities for self-development.	 In purposive groups, learners are guided to watch signed video clips or observe a demonstration on how to sign terms related to self-exploration and career development for business purposes. In pairs, learners are guided to fingerspell and sign terms related to self-exploration and career development for business purposes. In purposive groups, learners are guided to use print and non-print media to search for information on ways of nurturing talents and abilities. Learners are guided to display talents and abilities through clubs and societies in school. In purposive groups, learners are guided to engage with a 	1. How are talents and abilities nurtured? 2. Why is self-exploration necessary for career development?

resource person on career opportunities related to talents and abilities in Pre-technical and Business studies, In purposive groups, learners are guided to discuss a case scenario on ethical and unethical practices related to the use of talents and abilities. Learners are guided to make summary notes on ethical and unethical practices related to the use of talents and abilities. Ensure learners are provided with supplementary notes on ethical and unethical practices related to the use of talents and abilities. Ensure learners are provided with supplementary notes on ethical and unethical practices related to the use of talents and abilities. In purposive groups, learners are guided to use digital devices to search for relationships between talents and opportunities to different career pathways in senior school. In purposive groups, learners	
and opportunities to different career pathways in senior school.	and abilities in Pre-technical and Business studies, In purposive groups, learners are guided to discuss a case scenario on ethical and unethical practices related to the use of talents and abilities. Learners are guided to make summary notes on ethical and unethical practices related to the use of talents and abilities. Ensure learners are provided with supplementary notes on ethical and unethical practices related to the use of talents and abilities. In purposive groups, learners are guided to use digital devices to search for
	• In purposive groups, learners are guided to use digital devices to search for relationships between talents and opportunities to different career pathways in senior

	are guided to use a chart to make a list of talents and abilities and the corresponding career pathways in the senior school and present to plenary. 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. In purposive groups, learners are guided to use digital devices and print media to search for possible opportunities for career progression in Pre-technical and Business studies.
--	---

- Critical Thinking and Problem Solving: learner interprets and makes inference when reading and analysing a case scenario on ethical and unethical practices related to the use of talents and abilities.
- Creativity and Imagination: learner acquires networking skills by undertaking group activities and exchanging new ideas that inspire creative thinking skills during the display of talents and abilities through clubs, societies and other planned school fora.

Values:

• Integrity: learner develops accountability when analysing a case scenario on ethical and unethical practices related to the

use of talents and abilities.

• Respect: learner shows humility by displaying positive regard for self and others when discussing and presenting on ways of nurturing talents and abilities.

Pertinent and Contemporary Issues (PCIs):

- Social Cohesion: learner cooperates with others when demonstrating their talents and abilities during talent shows.
- Peer Education and Mentorship: learner displays talents and abilities through clubs and societies and other planned school fora.

Links to other Subjects:

Creative Arts: learner enhances creative skill during the display of talents and abilities through clubs and societies and other planned school fora.

- Digital devices.
- Print and non-print media.
- Charts on talents and abilities
- Relevant textbooks and reference materials

Suggested Assessment Rubric				
Level Indicator	Exceeds expectations	Meets expectations	Approaches expectations	Below expectations
Ability to sign terms related to computer software used in the workplace	Signs terms related to computer software used in the workplace with exceptional accuracy demonstrating signing proficiency.	Signs terms related to computer software used in the workplace accurately conveying the intended meaning clearly.	Signs terms related to computer software used in the workplace with noticeable errors.	Signs terms related to computer software used in the workplace inaccurately and lacks clarity in articulation.
Ability to describe risks associated with working on raised platforms	Describes risks associated with working on more than five raised platforms	Describes risks associated with working on five raised platforms	Describes risks associated with working on three to four raised platforms	Describes risks associated with working on two or less raised platforms
Ability to describe safe ways of handling hazardous substances in the environment	Describes safe ways of handling hazardous substances in the environment citing examples	Describes safe ways of handling hazardous substances in the environment	Describes some safe ways of handling hazardous substances in the environment	With prompts describes safe ways of handling hazardous substances in the environment
Ability to relate talents and abilities to career pathways	Relates talents and abilities to career pathways with illustrations	Relates talents and abilities to career pathways	Relates some talents and abilities to career pathways	With prompts relates talents and abilities to career pathways

STRAND 2.0: COMMUNICATION IN PRE-TECHNICAL STUDIES

Strand	Sub Strand	Specific Learning Outcomes	Suggested Learning Experiences	Suggested Key Inquiry Question(s)
2.0 Communication in Pre-Technical Studies	2.1 Oblique Projection (14 lessons)	By the end of the sub strand, the learner should be able to: a) sign terms related to oblique projection in technical field, b) explain the characteristics of oblique drawing in technical fields, c) sketch given drawings in oblique projection, d) draw shaped blocks in oblique projection, e) appreciate the application of oblique projection in Pretechnical Studies.	 In purposive groups, learners are guided to watch signed/captioned video clips or observe a demonstration on how to sign terms related to oblique projection in technical field. In pairs, learners are guided to fingerspell and sign terms related to oblique projection in technical field, In purposive groups, learners are guided to use print or digital media to search for information on characteristic of oblique drawings. In purposive groups, learners are guided to watch captioned video clips or observe a demonstration on how to draw given drawings in oblique projection without using instruments. 	How are oblique drawings used in technical fields?

• In pairs, learners practise how to
draw given drawings in oblique
projection without using
instruments. Ensure neatness,
correct line work, maintain
proportionality, correct labelling
and maintain accuracy.
•
• In purposive groups, learners are
guided to discuss the steps for
drawing shaped blocks in oblique
projection. Ensure appropriate
sitting arrangement that supports
bi lingual communication is
adopted.
• In purposive groups, learners are
guide to watch captioned video
clips or observe a demonstration
on how to use drawing
instruments to draw shaped blocks
in oblique projection. In case the
videos are not captioned, ensure
learners are supported by sign
language interpretation. Also,
pause the videos to allow learners
ample time to follow the videos.

	guided to use drawing instruments to draw shaped blocks in oblique projection. Ensure neatness, correct line work, maintain proportionality, correct labelling and maintain accuracy and correct dimensioning.
--	--

- Communication and Collaboration: learner develops signing, observation and self-expression skills when fingerspelling and signing terms related to oblique projection in technical field.
- Critical Thinking and Problem Solving: learner develops interpretation and inference skills when drawing oblique diagrams.

Values:

- Responsibility: learner cares for the print or digital media as well as drawing instruments when learning how to draw three dimensional objects in oblique projection.
- Unity: learner cooperates with others when using digital devices to search for information and discussing characteristic of oblique drawings.

Pertinent and contemporary issues (PCIs):

Social cohesion: learner develops ability to relate well with others as they brainstorm on the characteristic of oblique drawings.

Link to other subjects:

Mathematics: learner enhances skills of solid geometry when drawing oblique diagrams to specified dimensions.

- Digital devices such as; computer, laptop, smart phone, tablets among others
- Drawing instruments

- captioned videoThree dimensional realia
- Samples of free hand sketches
- Print media

Strand	Sub Strand	Specific Learning Outcomes	Suggested Learning Experiences	Suggested Key Inquiry Question(s)
2.0 Communication in Pre-Technical Studies	2.2 Visual Programming (15 lessons)	By the end of the sub strand, the learner should be able to: a) explain the application areas of visual programming software in solving problems, b) create an application using visual programming software for solving problems in day-to-day life, c) embrace the use of visual programming in the day-to-day life.	 In purposive groups, learners are guided to use print and non-print media to identify key terminologies related to visual programming. In purposive groups, learners are guided to watch signed/captioned video clips or watch a demonstration on how to sign terms related to visual programming in solving problems. In pairs, learners practise how to fingerspell and sign terms related to visual programming. In purposive groups, learners are guided to use digital devices and print media to search for information and captioned videos on 	How are applications developed using visual programming software?

application areas of visual programming software in solving problems. (Mobile programming and web development) In purposive groups, learners are guided to use digital devices and print media to search for information and captioned videos on how to develop an application using
search for information and
In pairs, learners are guided to discuss and present their

	findings on how to develop
	an application using visual
	programming software.
	Learners are guided to make
	summary notes on how to
	develop an application using
	visual programming
	software. Ensure learners are
	provided with supplementary
	notes on how to develop an
	application using visual
	programming software.
	• In purposive groups, learners
	are guided to develop an
	application using visual
	programming software.
	(Games and stories)
Care Competencies to be developed:	

- Self-Efficacy: effective communication skills are developed as the learner discusses the application areas of visual programming with peers.
- Critical Thinking and Problem Solving: open-mindedness and creativity skills are developed as the learner develops an application using visual programming software.

Value:

Social justice: learner shares resources equitably with others as they work in groups to develop applications.

Pertinent and Contemporary Issues (PCIs):

- Peer Education and Mentorship: interpersonal relationships is enhanced as learner discusses the application areas of visual programming software.
- Internet Safety and Security: responsible online behaviour is enhanced as learner uses available resources to search for information on the application areas of visual programming.

Link to other subjects

Creative Arts: learner enhances skills of animations when developing interactive stories, games and animations.

- Digital devices.
- Print media.
- Animations.
- Manilla papers.
- Captioned video clips

Suggested Assessmen	t Rubric			
Level	Exceeds expectations	Meets expectations	Approaches	Below expectations
Indicator			expectations	
Ability to sign terms	Sign terms related to	Sign terms related to	Sign terms related to visual	Sign terms related to
related to visual	visual programming	visual programming	programming software in	visual programming
programming software	software in solving	software in solving	solving problems with	software in solving
in solving problems.	problems with	problems accurately	noticeable errors and	problems inaccurately and
	exceptional accuracy	conveying the intended	inconsistencies in	lacks clarity in
	demonstrating signing	meaning clearly.	articulation.	articulation.
	proficiency.			
Ability to explain the	Explains the	Explains the	Explains the	Explains the
characteristics of	characteristics of	characteristics of	characteristics of oblique	characteristics of
oblique drawing in	oblique drawing in	oblique drawing in	drawing in technical	oblique drawing in
technical fields	technical fields with	technical fields	fields leaving out few	technical fields leaving
	illustrations		details	out many details
Ability to create an	Creates an application	Creates an application	Creates an application	Creates an application
application using	using visual	using visual	using visual	using visual
visual programming	programming software	programming	programming software	programming software
software for solving	for solving problems in	software for solving	for solving problems in	for solving problems in
problems in day-to-	day-to-day life with	problems in day-to-	day-to-day life with basic	day-to-day life with
day life	enhanced user-friendly	day life	features	simplistic features
	features			

STRAND 3.0: MATERIALS FOR PRODUCTION

Strand	Sub Strand	Specific Learning Outcomes	Suggested Learning Experiences	Suggested Key Inquiry Question(s)
3.0 Materials for Production	3.1 Wood (8 lessons)	By the end of the sub strand, the learner should be able to: a) sign terms related to wood as a material of production, b) classify wood according to physical characteristics, c) describe the preparation of wood for use in the production of items, d) relate types of wood to their uses in the community, e) value the importance of wood in the day-to-day life.	 In purposive groups, learners are guided to watch signed/captioned videos or observe a demonstration on how to sign terms related to wood as a material of production. In purposive groups, learners practise how to fingerspell and sin terms related to wood as a material of production. In purposive groups, learners are guided to use print or digital media to search for information on physical characteristics of wood, discuss and present to plenary. Ensure the discussions are based on bi lingual communication to suit both Hard of Hearing and Deaf learners. Adopt a proper seating arrangement preferably a horse type to allow learners maximum interaction. Also, provide 	Why is wood an important material in day-to-day life?

learners with guiding questions to
moderate the discussion.
In purposive groups, learners are
guided to use print or digital media to
search for information on the types of
wood used at the workplace.
In pairs, learners are guided to sort
wood into either softwood or
hardwood.
 In purposive groups, learners are
guided to use print or digital media to
search for information on how to
prepare wood for use in the
workplace.
Adopting a proper seating
arrangement, learners are guided to
discuss and present their findings on
how to prepare wood for use in the
workplace. Ensure the discussions are
based on bi lingual communication to
suit both Hard of Hearing and Deaf
learners. Also, provide learners with
guiding questions to moderate the
discussion.

• In purposive groups, learners are
guided to discuss methods of wood
preparation for use in the workplace
(conversion and seasoning). Provide
learners with guiding questions to
moderate the discussion.
Learners are guided to write summary
notes on methods of wood preparation
for use in the workplace. Ensure
learners are provided with
supplementary notes on methods of
wood preparation for use in the
workplace.
In purposive groups, learners are
guided to use print or digital media to
search for information on uses of
wood in the workplace, discuss and
present their findings on uses of wood
in the workplace.
Learners are guided to write summary
notes on uses of wood in the
workplace. Ensure learners are
provided with supplementary notes on
- · · · · · · · · · · · · · · · · · · ·
uses of wood in the workplace.

	• In purposive groups, learners are guided to visit a nearby workplace to explore the uses of wood. 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.
--	---

- Digital Literacy: learner develops digital skills when interacting and manipulating digital devices to search for information on types of wood.
- Learning to learn: learner organises own learning when searching for information on the types of wood used in the immediate environment.

Values:

- Unity: learner cooperates with others when sharing print or digital media to search for information on types of wood.
- Respect: learner accepts diverse opinions when discussing methods of wood preparation.

Pertinent and Contemporary Issues (PCI's):

Peer education and Mentorship: interpersonal relationships is enhanced as learner discusses methods of wood preparation for use in the immediate environment

Links to other learning areas:

Social Studies: learner enhances knowledge of resource exploitation as they brainstorm on the uses of wood in different trades.

Suggested learning resources

- Assorted Pieces of wood (hard and soft)
- Career brochures, career magazines
- Digital devices such as; computer, laptop, smart phone, tablets among others

Strand	Sub Strand	Specific Learning Outcomes	Suggested Learning Experiences	Suggested Key Inquiry Question(s)
3.0 Materials	3.2 Handling waste materials (8 lessons)	By the end of the sub strand, the learner should be able to: a) sign terms related to handling waste materials in the immediate environment, b) Identify waste materials found in the environment, c) describe ways of handling waste materials safely in the immediate environment, d) recycle waste materials to make items for day-to-day use, e) appreciate the need for proper waste management in the immediate environment.	 In purposive groups, learners are guided to watch captioned/signed video clips or observe a demonstration on how to sign terms related to handling material in the immediate environment. In pairs, learners are guide to fingerspell and sign terms related to handling waste materials in the immediate environment. In purposive groups, learners are guided to visit a nearby market within the locality to identify waste materials. (plastic, glass, metal, paper, electronic waste, animal waste, construction waste) Ensure 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 	How can we reuse waste materials?

assistive hearing aids which can aid them interact with the community. In pairs, learners are guided to write a summarized report on safe disposal of the waste identified at the market. In purposive groups, learners are guided to use print or digital resources to search for more information on safe ways of handling waste materials in the environment. In purposive groups, learners are guided to demonstrate safe handling of waste materials in school
waste materials in school. In purposive groups, learners are guided to watch captioned videos or observe demonstration on how to make an item using recyclable waste.
In purposive groups, learners are guided to collect locally available recyclable waste materials and make items from it.

- Self-Efficacy: effective communication skills are developed as the learner searches for information on safe ways of handling waste materials in the environment
- Digital Literacy: learner develops digital skills when interacting and manipulating digital devices to search for information on safe ways of handling waste materials in the environment.

Value:

Responsibility: learner safely handles and disposes waste materials when making household items from waste materials.

Pertinent and Contemporary Issues (PCIs):

Internet Safety and Security: responsible online behaviour is enhanced as learner uses digital or print resources to search for information on safe ways of handling waste materials.

Link to other subjects

Creative Arts: learner enhances design skills when making items from recyclable waste materials.

Suggested Learning Resources

- Print media.
- Digital devices.
- Personal protective equipment (PPEs)
- Plastic, glass, metal, paper, electronic waste, animal waste, construction waste

Suggested Assessment Rubric					
Level Indicator	Exceeds expectations	Meets expectations	Approaches expectations	Below expectations	
Ability to sign terms related to handling waste materials in the immediate environment.	Signs terms related to handling waste materials in the immediate environment with exceptional accuracy demonstrating signing proficiency.	Signs terms related to handling waste materials in the immediate environment accurately conveying the intended meaning clearly.	Signs terms related to handling waste materials in the immediate environment with noticeable errors and inconsistencies in articulation.	Signs terms related to handling waste materials in the immediate environment inaccurately and lacks clarity in articulation.	
Ability to describe the preparation of wood for use in production of items	Describes the preparation of wood for use in production of items in details	Describes the preparation of wood for use in production of items	Describes the preparation of wood for use in production of items leaving out a few details	Describes the preparation of wood for use in production of items leaving out many details	
Ability to recycle waste materials to make items for day-to-day use	Recycle waste materials to make highly functional items for day-to-day use	Recycle waste materials to make items for day-to-day use	Recycle waste materials to make basic items for day-to-day use	Recycle waste materials to make simplistic items for day-to-day use	

STRAND 4.0: TOOLS AND PRODUCTION

Strand	Sub Strand	Specific Learning Outcomes	Suggested Learning Experiences	Suggested Key Inquiry Question(s)
4.0 Tools and Production	4.1 Holding Tools (8 lessons)	By the end of the sub strand, the learner should be able to: a) sign terms related to holding tools in the workplace, b) identify holding tools used in the immediate environment, c) select holding tools for a given task in the community, d) use holding tools to perform given tasks in the community, e) care for holding tools in the immediate environment, f) appreciate the importance of holding tools in the community.	 In purposive groups, learners are guided to watch signed/captioned videos on how to sign terms related to holding tools in the work environment. In purposive groups, learners practise how to fingerspell and sign terms related to holding tools in the community. In purposive groups, learners are guided to use visual aids or real objects to identify holding tools (pliers, clamps, tongs, clips, spanner, vice). In pairs, learners are guided to use realia (pliers, clamps, tongs, clips, spanner, vice)., videos or charts to choose holding tools for different tasks. In purposive groups, learners are guided to use print or non- 	How are holding tools used in the immediate environment?

	print media to search for information or videos on safe use of holding tools in the workplace and present for peer assessment. • Learners are guided to write summary notes on uses of holding tools. Ensure learners are provided with supplementary notes on uses of holding tool. • In purposive groups, learners are guided to demonstrate safe use of holding tools when performing different types of tasks. • In purposive groups, learners are guided to use digital devices and print media to search for information or captioned videos on care for holding tools in the workplace. • In purposive groups, learners are guided to discuss and present findings on care for
--	---

holding tools in the workplace. Ensure the discussions are
Ensure the discussions are
based on bi lingual
communication to suit both
Hard of Hearing and Deaf
learners. Adopt a proper seating
arrangement preferably a horse
type to allow learners
maximum interaction. Also,
provide learners with guiding
questions to moderate the
discussion.
In purposive groups, learners
are guided to clean and safely
store holding tools. Provide the
learner with a one-on-one
demonstration on how to clean
and store holding tools.

- Communication and Collaboration: learner develops observing/listening and signing/speaking skills when learners practise how to fingerspell and sign terms related to holding tools.
- Learning to Learn: learner reflects on own work when demonstrating safe use of holding tools when performing different types of tasks.
- Digital Literacy: learner develops digital skills when using digital devices and print media to search for information or captioned videos on care for holding tools.

Values:

- Unity: learner cooperates with others when discussing on the safe use of holding tools.
- Responsibility: learner exercises accountability as they clean and safely store holding tools.

Pertinent and Contemporary Issues (PCIs):

- Personal Safety and Security: learner demonstrates basic safety habits as they safely use holding tools to perform tasks.
- Disaster Risk Reduction: learner appreciates the need to clean and safely store holding tools.

Link to other subjects:

Agriculture and Nutrition: learner enhances the knowledge on use of farm tools during demonstration on the safe use of holding tools when performing different types of tasks.

Suggested learning resources

- Pliers, Clamps, spanners, vice, Tongs, clips among others
- Career brochures, career magazines
- Digital devices such as; computer, laptop, smart phone, tablets among others

Strand	Sub Strand	Specific Learning Outcomes	Suggested Learning Experiences	Suggested Key Inquiry Question(s)
4.0 Tools and Production	4.2 Driving Tools (8 lessons)	By the end of the sub strand, the learner should be able to: a) sign terms related to driving tools in the work place, b) identify driving tools used in	• In purposive groups, learners are guided to use print and non-print media to search for information of terminologies related to driving tools.	How are different types of driving tools used to perform tasks?
	(o icssolis)	the community, c) select driving tools for performing given tasks in the immediate environment, d) observe safety when using driving tools to perform a given task, e) care for driving tools in immediate environment, f) acknowledge the importance of driving tools in the community.	 In purposive groups, learners are guided to observe a demonstration on how to fingerspell and sign terminologies used in driving tools. In pairs, learners practice to fingerspell and sign terminologies used in driving tools. In purposive groups, learners use digital devices to watch a captioned video showing uses of driving tools. (Screwdrivers, Hand wrenches, Nut drivers, Thandle wrenches) 	tasks:
			• 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
 In purposive groups, learners visit
a mechanic's repair shop within
the locality to explore the use of
driving tools in performing given
tasks and maintaining safety use
of the tools. 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.
Learners are guided to make
notes on ways of caring for
driving tools as observed at the
repair shop. (lubricate, store out
of moisture, clean regularly)
Ensure learners are provided with
supplementary notes on ways of
supplementary notes on ways of

caring for driving tools in the workplace. In purposive groups, learners perform simple tasks to demonstrate safe use of driving tools within the school and the locality. In purposive groups, learners are guided to clean and safely store
driving tools.

- Self-Efficacy: learner acquires effective communication skills in task execution when demonstrating safe use of driving tools to perform different types of tasks.
- Digital Literacy: learner develops interacting skills use digital devices to watch a captioned video showing uses of driving tools.

Values:

- Unity: learner cooperates with others when discussing on the safe use of driving tools.
- Responsibility: learner exercises accountability as they maintain and store driving tools.

Pertinent and Contemporary Issues (PCIs):

- Personal Safety and Security: learner demonstrates basic safety habits as they safely use driving tools to perform tasks.
- Disaster Risk Reduction: learner appreciates the need to clean and safely store driving tools.

Link to other subjects:

Agriculture and Nutrition: learner enhances the knowledge on use of farm tools during demonstration on how to use and care for driving tools.

Suggested Learning Resources

• Digital devices such as; computer, laptop, smart phone, tablets among others.

- Print and non-print media.
- Career brochures, career magazines
- Driving tools (Screwdrivers, Hand wrenches, Nut drivers, T-handle wrenches Hammers, Screw driver, spanner, punches mallets among others)

Strand	Sub strand	Specific learning outcomes	Suggested learning experiences	Suggested Key Inquiry Question(s)
4.0 Tools and Production	4.3 Project (20 lessons)	By the end of the sub strand the learner should be able to: a) sign terms related to project work in the community, b) identify a problem in the locality that can be solved using the skills acquired in Pre-Technical Studies, c) select an item that can be made to solve the identified problem, d) make an item to solve the problem identified using locally available materials, e) utilise skills learnt in solving problems in the day-to-day life.	 In purposive groups, learners are guided to use print media to search for terms used in projects. In purposive groups, learners are guided to practise how to sign and fingerspell the terms identified and list terms related to the project. In purposive groups, learners are guided to explore the locality to establish problems that can be solved using the skills acquired in this learning area. In purposive groups, learners are guided to discuss the problems in the locality that can be solved using the skills acquired. Ensure learners are seated in an appropriate arrangement that supports use of bi lingual communication during the discussions. In purposive groups, learners are guided to use a print or digital media to search for information on possible items to solve the identified problem, 	How are competencies acquired in Pre-Technical Studies used to solve day- to-day problems?

	• In purposive groups, learners are guided to discuss possible items that
	can be made to solve the identified
	problem,
	In purposive groups, learners are
	guided to select one item that can be
	made using the skills acquired to solve
	the identified problem.
	• In pairs, learners are guided to sketch
	the item that can be made using the
	skills acquired to solve the identified
	problem.
	• In purposive groups, learners are
	guided to use locally available
	materials and tools to make the
	identified item.
	• In purposive groups, learners are
	guided to prepare and estimate the cost
	to determine the price for the item.
	Learners are guided to display the
	finished item to peer assessment or use
	digital devices to take photographs of
	the item and post on a digital portfolio.
Core Competencies to be developed:	

• Critical Thinking and Problem Solving: learner develops evaluation and decision-making skills when selecting an item that can be made using the skills acquired.

- Creativity and imagination: learner develops experimenting skills when selecting locally available materials and tools to make the identified item.
- Self-Efficacy: learner acquires effective communication skills when describing the procedure followed in doing the defined task and gives feedback during display of the finished item for evaluation.

Values:

- Responsibility: learner cares for tools and materials when making the item.
- Respect: learner appreciates diverse opinions of others as they discuss possible items that can be made to solve the identified problem.

Pertinent and Contemporary Issues (PCIs):

- Environmental Education: learner protects natural resources as they use locally available materials and tools to make the identified item.
- Financial **Literacy:** is enhanced as learner estimates the cost to determine the price for the item.

Link to other subjects:

Creative Arts: learner enhances knowledge on drawing during the sketching of an item that can be made using the skills acquired in Pre-Technical Studies.

Suggested learning

- Digital resources
- Resource person
- Relevant textbooks and reference materials

Suggested Assessment	Suggested Assessment Rubric				
Level Indicator	Exceeds expectations	Meets expectations	Approaches expectations	Below expectations	
Ability to sign terminologies related to project work.	Signs terminologies related to project work with exceptional accuracy demonstrating signing proficiency.	Signs terminologies related to project work accurately conveying the intended meaning clearly.	Signs terminologies related to project work with noticeable errors and inconsistencies in articulation.	Signs terminologies related to project work inaccurately and lacks clarity in articulation.	
Ability to identify holding tools used in the locality	Identifies more than five holding tools used the locality	Identifies five holding tools used in the locality	Identifies three to four holding tools used in the locality	Identifies two holding tools used in the locality	
Ability to observe safety when using driving tools to perform a given task	Always observes safety when using driving tools to perform a given task	Often observes safety when using driving tools to perform a given task	Occasionally observes safety when using driving tools to perform a given task	Rarely observes safety when using driving tools to perform a given task	
Ability to make an item to solve the identified problem (identify problems, select a problem that can be solved, come up with a solution to the	Makes an item to solve the identified problem following all the five steps with a quality finish	Makes an item to solve the identified problem following all the five steps	Makes an item to solve the identified problem following four steps	Makes an item to solve the identified problem following less than four steps	

problem, implement		
the solution, test and		
present for evaluation)		

STRAND 5.0: ENTREPRENEURSHIP

Strand	Sub Strand	Specific Learning Outcomes	Suggested Learning Experiences	Suggested Key Inquiry Question(s)
	5.1 Financial Services (4 lessons)	By the end of the substrand, the learner should be able to: a) sign terms related to financial services in financial institutions in Kenya, b) identify financial institutions available in Kenya, c) classify financial institutions in Kenya, d) analyse services offered by financial institutions in Kenya, e) utilise financial services for entrepreneurial development.	 In purposive groups, learners are guided to use print media and digital devices to identify key terminologies related to financial services. In purposive groups, learners are guided to use print media or watch videos or demonstrations on how to fingerspell and sign terms related to financial services. In pairs, learners are guided to fingerspell and sign terms related to financial services. In purposive groups, learners are guided to use print media and digital devices to search for information on types of financial institutions in Kenya. In purposive groups, learners are guided to discuss and 	What are the services offered by different financial institutions in Kenya?

normal design for the second second
present their findings on the
types of financial institutions in
Kenya (banks, insurance,
SACCOs, micro finance).
Ensure the discussions are
based on bi lingual
communication to suit both
Hard of Hearing and Deaf
learners. Adopt a proper seating
arrangement preferably a horse
type to allow learners maximum
interaction. Also, provide
learners with guiding questions
to moderate the discussion.
• In purposive groups, learners
are guided to use ICT and other
available resources to search for
information on services offered
by financial institutions in
Kenya.
• In purposive groups, learners
are guided to discuss and
present their findings on
services offered by financial

	-
	institutions in Kenya. Ensure
	the discussions are based on bi
	lingual communication to suit
	both Hard of Hearing and Deaf
	learners. Adopt a proper seating
	arrangement preferably a horse
	type to allow learners maximum
	interaction. Also, provide
	learners with guiding questions
	to moderate the discussion.
	Learners are guided to make
	summary notes on services
	offered by financial institutions
	in Kenya. Ensure learners are
	provided with supplementary
	notes on services offered by
	financial institutions in Kenya.
	In purposive groups, learners
	are guided to use a case study
	on financial institutions to
	identify the financial services.
Cara Campatanajas ta ha davalanad:	<u>'</u>

- Learning to learn: learner acquires skills of organising self-learning when searching for information on services offered by financial institutions in Kenya.
- Self-Efficacy: learner develops effective communication skills when discussing and presenting the types of financial

institutions in Kenya.

• Critical Thinking and Problem-Solving: learner develop interpretation and inference skills when identifying financial services.

Values:

- Responsibility: learner cares for own property and those of others when handling ICT devices while searching for information on financial services.
- Unity: learner displays team spirit and collaborates with others when discussing and presenting on the types of financial institutions in Kenya

Pertinent and Contemporary Issues (PCIs):

• Financial Literacy: learner's financial literacy skills are enhanced when learning about services offered by financial institutions.

Link to other subjects:

Agriculture and Nutrition: learner enhances knowledge on investment when discussing and presenting the types of financial institutions.

Suggested Learning Resources

- Newspapers cuttings on case study on financial institutions
- Digital resources such as Smart phones, laptops and desktops.
- ICT tools.

Strand	Sub Strand	Specific Learning Outcomes	Suggested Learning Experiences	Suggested Key Inquiry Question(s)
5.0 Entrepreneurship	5.2 Government and Business (6 lessons)	By the end of the sub strand, the learner should be able to: a) sign terms related to government involvement in business in Kenya, b) explain the reasons for government involvement in business in Kenya, c) describe ways of government involvement in business, d) explore types of taxes in Kenya, e) analyse e-Government services in business, f) acknowledge the need to comply with Government regulation in business.	 In purposive groups, learners are guided to use print media and digital devices to identify key terminologies related to government involvement in business in Kenya. In pairs, learners are guided to practise how to fingerspell and sign terms related to government involvement in business in Kenya. In purposive groups, learners are guided to use print media and digital devices to search for information and video on reasons for government involvement in business in Kenya. 	Why is it important for the Government to get involved in business?

• In purposive groups,
learners are guided to
discuss and present their
findings on reasons for
government involvement in
business in Kenya. Ensure
learners are seated in an
appropriate arrangement
that supports use of bi
lingual communication
during the discussions.
Also, provided learners with
guiding questions on the
role of Pre-Technical and
Business studies in day-to-
day life to moderate the
discussion.
Learners are guided to write
summary notes on reasons
for government involvement
in business in Kenya.
Ensure learners are provided
with supplementary notes
on reasons for government

involvement in business in
Kenya.
• In purposive groups,
learners are guided to use
print media and digital
devices to search for
information or captioned
videos on ways of
government involvement in
business. 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 purposive groups,
learners are guided to
discuss and present their
findings on ways of

government involvement in
business. Ensure the
discussions are based on bi
lingual communication to
suit both Hard of Hearing
and Deaf learners. Adopt a
proper seating arrangement
preferably a horse type to
allow learners maximum
interaction. Also, provide
learners with guiding
questions to moderate the
discussion.
Learners are guided to write
summary notes on ways of
government involvement in
business. Ensure learners
are provided with
supplementary notes on
ways of government
involvement in business.
• In pairs, learners are guided
to use print media and
digital devices to search for
uigitat de (1008 to Beater 101

information or videos on the
meaning and importance of
paying taxes in Kenya.
In purposive groups,
learners are guided to
discuss present findings on
meaning and importance of
paying taxes in Kenya.
Ensure learners are seated in
an appropriate arrangement
that supports use of bi
lingual communication
during the discussions.
Also, provided learners with
guiding questions to
moderate the discussion.
Learners are guided to write
summary notes on the
meaning and importance of
paying taxes in Kenya.
Ensure learners are provided
with supplementary notes
on meaning and importance
of paying taxes in Kenya.

• In purposive groups, learners are guided to use print media and digital devices to search for types of taxes in Kenya. (Income tax, VAT, corporate tax, excise duty)
learners are guided to prepare and display posters in the school community on the need to pay tax in Kenya. In purposive groups, learners are guided to use print media and digital devices to search for information or captioned videos on e-Government services in business and present to plenary. In purposive groups, learners are guided to sign, read and discuss a case

study on e- Government services in business.
• In purposive groups,
learners are guided to use
ICT tools to access and
interact with e- Government
platform in Kenya.

- Critical Thinking and Problem Solving; learner develops evaluating and decision-making skills when discussing a case scenario on e- Government services in business.
- Digital Literacy: learner develops the skills of interacting with digital devices when using ICT tools to access and interact with the e- Government platform in Kenya.
- Citizenship: learner develops social and civic skills when discussing and presenting on the meaning and importance of paying taxes in Kenya.

Values:

- Integrity: learner acquires accountability skills when discussing and presenting on the meaning and importance of paying taxes in Kenya,
- Social justice: learner learns about the need for government involvement in business to promote fairness and equity across the society.

Pertinent and Contemporary Issues (PCIs):

- Financial Literacy: learner's financial literacy skills are enhanced when discussing and presenting on types of taxes paid in Kenya.
- Social Cohesion: learner's interpersonal relationships are enhanced when brainstorming and presenting on the reasons for government involvement in business in Kenya.

Link to other subjects:

Social Studies: learner enhances knowledge on taxation when discussing the types of taxes.

Suggested Learning Resources

- Digital devices such as smartphones
- Newspapers
- Text books
- Captioned videos
- Supplementary notes

Strand	Sub Strand	Specific Learning Outcomes	Suggested Learning Experiences	Suggested Key Inquiry Question(s)
5.0 Entrepreneurship	5.3 Business Plan (6 lessons)	By the end of the sub strand, the learner should be able to: a) sign terms related to business plan in entrepreneurship, b) explain the importance of a business plan in entrepreneurship, c) describe the components of a business plan in financial management, d) fill in a business plan template for a given business project, e) embrace the use of a business plan in entrepreneurship.	 In purposive groups, learners are guided to use print media and digital devices to identify key terms related to business plan in entrepreneurship. In purposive groups, learners are guided to use print media or watch signed videos or observe a demonstration on how to fingerspell and sign key terms related to business plan in entrepreneurship. In pairs, learners are guided to practise how to fingerspell and sign terms related to business plan in entrepreneurship. In pairs, learners are guided to use print and non-print media to search for the meaning of a business plan. In purposive groups, learners are guided to use print media and 	 Why is a business plan important to an entrepreneur? How is a business plan prepared?

digital devices to search for the importance of a business plan in entrepreneurship. • Using appropriate sitting arrangement, learners are guided
to discuss and present their findings on the meaning and importance of a business plan.
Provided learners with guiding questions to moderate the discussion.
Learners are guided to write summary notes on the meaning and importance of business plan
in entrepreneurship. Ensure learners are provided with supplementary notes on the meaning and importance of
business plan in entrepreneurship. In purposive groups, learners are
guided to use print media and digital devices to search for the

	components of a business plan and present to plenary.
	1 1
	• In purposive groups, learners are
	guided to sign read and discuss a
	case study on the components of
	a business plan.
	• In purposive groups, learners are
	guided to discuss and practice
	filling in a business plan
	template.
	Learners are guided to present
	the filled in business plan
	templates to peers for peer
	review and assessment.
	In purposive groups, learners
	are guided to complete a
	business plan template.
Care Competencies to be developed:	1 1

Core Competencies to be developed:

- Learning to Learn: learner acquires the skill of organising own learning when completing a business plan template.
- Critical thinking and Problem Solving: learner acquires evaluation and decision-making skills when completing a business plan template.

Values:

- Respect: learner shows regard for the input of every member when brainstorming and presenting the meaning and importance of a business plan.
- Love: learner respects others when brainstorming and presenting the meaning and importance of a business plan.

Pertinent and Contemporary Issues (PCIs):

- Social Cohesion: learner works and cooperates with members of the team when brainstorming on the meaning and importance of a business plan.
- Time Management: learner develops ability to manage time as work to complete a business plan template.

Link to other subjects:

Agriculture and Nutrition: learner enhances knowledge on marketing of agricultural produce when discussing business plan.

Business plan templates

Suggested learning resources.

- Digital resources
- Resource person
- Relevant textbooks and reference materials
- Photographs and pictures
- Charts

Suggested Assessment Rubric						
Level Indicator	Exceeds expectations	Meets expectations	Approaches expectations	Below expectations		
Ability to sign terms related to business plans in entrepreneurship.	Signs terms related to business plans in entrepreneurship with exceptional accuracy demonstrating signing proficiency.	Signs terms related to business plans in entrepreneurship accurately conveying the intended meaning clearly.	Signs terms related to business plans in entrepreneurship inconsistencies in articulation.	Signs terms related to business plans in entrepreneurship inaccurately and lacks clarity in articulation.		
Ability to identify financial institutions available in Kenya	Identifies four financial institutions available in Kenya	Identifies three financial institutions available in Kenya	Identifies two financial institutions available in Kenya	Identifies two or less financial institutions available in Kenya		
Ability to explain the reasons for government involvement in business in Kenya	Explains the reasons for government involvement in business in Kenya citing examples	Explains the reasons for government involvement in business in Kenya	Explains some of the reasons for government involvement in business in Kenya	With prompts explains of the reasons for government involvement in business in Kenya		
Ability to fill a business plan template (executive summary business description, product and service,	Fills in six components of a business template giving specific details.	Fills in six components of a business template.	Fills in three to five components of a business template.	Fills in at most two components of a business template.		

market/competitor		
analysis, financial		
projection and		
marketing plan)		

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

Introduction

In Grade 9, 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 project. 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 a **variety of** integrated CSL group projects in teams of 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, mobilise 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 group projects 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 group projects. They will focus on 3 components namely: skills from various learning areas applied in carrying out the projects, core competencies developed and values nurtured.

APPENDIX 2: SUGGESTED ASSESSMENT METHODS, SUGGESTED 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 Safety on Raised Platforms	 Oral/signed tests Observation Checklist Written test Rubrics Practical work 	 Raised platforms Video clips and visual aids Personal protective equipment (PPEs) 	Learners take a visit to a nearby workplace to observe safety precautions when working on raised platforms
	1.2 Handling Hazardous Substances	 Oral/signed tests Observation Checklist Written test Rubrics Project Practical work 	 Digital devices like video Local work places Personal protective equipment (PPEs) Safety labels and manuals Charts 	Learners visit a nearby workshop in the locality to observe safe handling of poisonous, flammable and corrosive substances
	1.3 Self- Exploration and Career Development	 Assignments Self and peer assessment Oral/signed questions Observation 	 Digital resources Volunteer resource person Relevant textbooks and reference materials Photographs and pictures 	 Clubs and societies School mentoring and coaching programmes Field visit activities School drama festivals with themes on talents

			Charts on talents and abilities	 and abilities Discussion by a resource person on careers Parental empowerment and engagement guidelines
2.0 Communication in Pre-Technical Studies	2.1 Oblique Projection	 Oral/signed tests Observation Checklist Written test Rubrics Project Practical work Portfolio 	 Drawing papers Pencils Digital devices such as; computer, laptop, smart phone, tablets among others Samples of free hand sketches Three - dimensional realia 	Learners take a walk around the school to observe and record the use of oblique drawings in the technical fields.

	2.2 Visual Programming	 Rating scales rubrics questionnaires projects portfolios oral/signed questions aural questions, interview schedules written tests anecdotal records observation schedules checklists 	 Reference materials digital devices manilla papers Internet video clips audio clips models visual programming software 	Share experience with the community members on the importance of visual programming in solving day to day problems
3.0 Materials for Production	3.1 Wood	 Oral/signed tests Observation Checklist Written test Rubrics Project Practical work 	 Assorted Pieces of wood (hard and soft) Career brochures, career magazines Digital devices such as; computer, laptop, smart phone, tablets among others 	Learners visit the locality to explore process of wood preparation and uses

	3.2 Handling of waste materials	 Checklist Oral/signed tests Observation Written test Project Practical work Rubrics 	 Digital devices like video Local work places Personal protective equipment (PPEs) Safety labels and manuals Charts 	Learners visit a nearby workshop in the locality to observe safe handling of waste materials
4.0. Tools and Production	4.1 Holding Tools	 Oral/signed tests Observation Checklist Written test Rubrics Project Practical work 	 Pliers, Clamps, spanners, vice, Tongs, clips among others Career brochures, career magazines Digital devices such as; computer, laptop, smart phone, tablets among others 	Learners visit the locality and identify the role of holding tools

	4.2 Driving Tools	 Oral/signed tests Observation Checklist Written test Rubrics Project Practical work 	 Hammers, Screw driver, spanner, punches mallets among others Career brochures, career magazines Digital devices such as; computer, laptop, smart phone, tablets among others 	Learners visit work environments around your locality and observe the various uses, care and storage of driving tools
	4.3 Project	PortfolioObservationinterview	 Digital resources Resource person Relevant textbooks and reference materials Computer software 	 Field visits to the local community Parental empowerment and engagement guidelines
5.0 Entrepreneurship	5.1 Financial Services	 Assignments Self and peer assessment Oral/signed questions Observation 	 Newspapers cuttings on case study on financial institutions Digital resources such as Smart phones, laptops and desktops. ICT tools. 	 Learners Visit financial institutions to familiarise with financial services Club and societies School drama festivals with themes on financial services Discussion by a resource person on financial services Posters with messages on

5.2 Government and Business	 Assignments Self and peer assessment Oral/signed questions Observation 	 Digital devices such as smartphones Newspapers Text books Captioned videos Supplementary notes 	financial services Debates on financial services Parental empowerment and engagement guidelines Clubs and societies School mentoring and coaching programmes Discussion by a resource person on government and business Posters with messages on government and business Parental empowerment and engagement guidelines.
-----------------------------------	---	--	---

5.3 Business Plan	AssignmentsSelf and peer assessmentOral/signed	 Digital resources Resource person Relevant textbooks and reference materials 	 Clubs and societies Field visit activities Discussion by a resource person on business plan
	questionsPortfolio	Photographs and picturesCharts	Posters with messages on business plan
	Assessment	Citato	Parental empowerment
	 Observation 		and engagement
	Journaling]		guidelines