KENYA INSTITUTE OF CURRICULUM DEVELOPMENT

A Skilled and Ethical Society

JUNIOR SCHOOL CURRICULUM DESIGN

PRE-TECHNICAL STUDIES

GRADE 7

First published 2022

Revised 2024

ISBN: 978-9914-43-987-8

Published and printed by the 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, the 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 the 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 of the primary education cycle and feedback from curriculum implementers and other stakeholders led to rationalisation and review of the basic education curriculum.

The reviewed Grade 7 curriculum designs build on competencies attained by learners at the end Grade 6. Further, they provide opportunities for learners to continue exploring and nurturing their potential as they prepare to transit to Senior School.

The curriculum designs present the 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, suggested key inquiry questions, core competencies, Pertinent and Contemporary Issues (PCIs), values, and the 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 the Competency Based Curriculum (CBC) in 2019. Grade 7 is the first grade of Junior School in the reformed education structure.

The reviewed Grade 7 curriculum furthers implementation of the CBC from Grade 6 at the primary education level. The main feature of this level is a broad curriculum for the learner to explore talents, interests, and abilities before selection of pathways and tracks at the Senior School education level. This is very critical in the realisation of the Vision and Mission of the ongoing curriculum reforms as enshrined in the Sessional Paper No. I of 2019: *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 7 curriculum designs are intended to enhance the learners' development of 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 design will guide teachers to effectively facilitate learners to attain the expected learning outcomes for Grade 7 and prepare them for a smooth transition to Grade 8. Furthermore, it is my hope that teachers will use the designs to make learning interesting, exciting, and enjoyable.

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

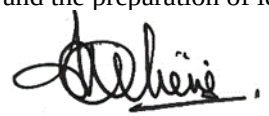
ACKNOWLEDGEMENT

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. The curriculum responds to the demands of the 21st Century and the aspirations captured in the Constitution of Kenya 2010, the Kenya Vision 2030, the East African Community Protocol, the International Bureau of Education Guidelines and the United Nations Sustainable Development Goals (SDGs).

KICD receives its funding from the Government of Kenya to facilitate the achievement of its 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 7 curriculum designs were developed 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 to the Government of Kenya, through the MoE and the development partners for the policy, resource, and logistical support. Specifically, special thanks goes to the Cabinet Secretary-MoE and the Principal Secretary - State Department of Basic Education.

We also wish to acknowledge the KICD curriculum developers and other staff, all teachers and educators who took part as panelists; the Semi-Autonomous Government Agencies (SAGAs), and representatives of various stakeholders for their roles in the development of the Grade 7 curriculum designs. In relation to this, we acknowledge the support of the Chief Executive Officers of the Teachers Service Commission (TSC) and the Kenya National Examinations Council (KNEC) during the process of developing these designs. Finally, we are very grateful to the Chairperson of the KICD Council and other members of the Council for the very consistent guidance throughout the process.

We assure all teachers, parents and other stakeholders that this curriculum design will effectively guide the implementation of the CBC in Grade 7 and the preparation of learners for transition to Grade 8.



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

TABLE OF CONTENTS

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 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 in adapting 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 needs 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 that 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 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 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

S/No	Learning Area	Number of Lessons Per Week (40 Minutes per Lesson)
1.	English	5
2.	Kiswahili / Kenya Sign Language	4
3.	Mathematics	5
4.	Religious Education	4
5.	Social Studies	4
6.	Integrated Science	5
7.	Pre-Technical Studies	4
8.	Agriculture	4
9.	Creative Arts and Sports	5
10.	Pastoral /Religious Instructional Program	1*
Total		**40 + 1***

LEARNING OUTCOMES FOR JUNIOR SCHOOL

By the 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, and 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 is an integrated learning area that comprising of Business, Computer, and Technical Studies domains. It builds upon the competencies acquired in Science and Technology, and other related learning areas at the Upper Primary School level. The learning area encompasses Foundations of Pre-Technical Studies, Communication in Pre-Technical Studies, Materials for Production, Tools and Production, and Entrepreneurship. These components aim to develop critical thinking, problem-solving, creativity, innovation, communication, digital literacy, and financial literacy skills - all of which are essential to prepare learners for specialisation at Senior School.

This learning area is anchored on National Goals of Education No. 2 to provide the learners with the necessary skills and attitudes for industrial development. It aligns with Kenya Vision 2030, which emphasises making education responsive to education needs. Additionally, Sessional Paper 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. The National ICT Policy of Kenya 2016 (revised 2020) further underscores the importance of using ICT as a foundation for the creation of a more robust economy.

SUBJECT GENERAL LEARNING OUTCOMES

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

1. communicate effectively using information and communication technology (ICT).
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 of career choices regarding 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 Studies	1.1 Introduction to Pre-Technical Studies	4
	1.2 Safety in the Immediate Environment	6
	1.3 Computer Concepts	6
2.0 Communication in Pre-Technical Studies	2.1 Introduction to Drawing	6
	2.2 Free-hand sketching	10
	2.3 ICT Tools in Communication	8
3.0 Materials for Production	3.1 Introduction to Materials	6
	3.2 Metallic Materials	10
	3.3 Non-Metallic Materials	10
4.0 Tools and Production	4.1 Measuring and Marking Out Tools	18
	4.2 Computer Hardware	8
5.0 Entrepreneurship	5.1 Introduction to Entrepreneurship	8
	5.2 Production Unit	10
	5.3 Financial Goals	10
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 Introduction to Pre-Technical Studies** (4 lessons)	By the end of the sub strand, the learner should be able to: a) identify the components of Pre-Technical Studies as a learning area, b) explain the role of Pre-Technical Studies in day-to-day life, c) embrace Pre-Technical Studies in career development.	The learner is guided to: • brainstorm on the components of Pre-Technical Studies as a learning area, • discuss and present the role of Pre-Technical Studies in day-to-day life, • debate on the role of Pre-Technical Studies in day-to-day life.	Why is Pre-Technical Studies important in day-to-day life?

Core Competencies to be developed:

- Communication and Collaboration: learner develops writing, speaking, listening, and teamwork skills when discussing, and presenting on the role of Pre-Technical Studies.
- Critical Thinking and Problem Solving: learner develops open-mindedness and creativity skills when brainstorming on Pre-Technical Studies as a learning area.

Values: • Unity: learner displays team spirit and collaboration with others when discussing and presenting the role of Pre-Technical Studies in day-to-day life. • Respect: learner displays tolerance for others' opinions when debating on the role of Pre-Technical Studies in day-to-day life.
Pertinent and Contemporary Issues (PCIs): Social Cohesion is enhanced when debating on the role of Pre-Technical Studies.
Link to Other Subjects: The learner is able to relate career to trade and economic activities in Social Studies.

Strand	Sub Strand	Specific Learning Outcomes	Suggested Learning Experiences	Suggested Key Inquiry Question(s)
1.0 Foundations of Pre-Technical Studies	**1.2 Safety in the Immediate Environment** (6 lessons)	By the end of the sub strand, the learner should be able to: a) identify potential safety threats in the immediate environment, b) outline safety rules and regulations for a given situation, c) observe safety in the immediate environment, d) appreciate the importance of observing safety in the immediate environment.	The learner is guided to: • brainstorm with peers on potential safety threats in the immediate environment (*physical and online),* • use print or digital media to search for information on potential hazards to personal safety in the immediate environment (*falls, common road crashes, slips, trips, fires*) • use print or digital media to search for information on physical threats to digital devices *(theft, natural disasters, hardware failure)* and online threats in the immediate environment and list them *(cyberbullying, impersonation, phishing, hacking, friend requests from unknown people),* • share ideas and practice on how to protect self and others from	1. Why is safety in the immediate environment important? 2. How can online threats be safeguarded against?

			threats in the immediate environment. • discuss safety rules and regulations to observe (when *performing tasks, handing materials and tools*), • role play on safety for self and others in the immediate environment.	

Core Competencies to be developed:

- Learning to Learn: learner develops skills of sharing learnt knowledge when taking turns with peers to share ideas on safety for self and others in the immediate environment.
- Digital Literacy: learner develops skills of interacting with technology when searching for information on potential hazards to personal safety in the immediate environment.

Values:

- Respect: learner appreciates diverse opinions when sharing information with peers on the online threats.
- Responsibility: learner engages in assigned roles when role playing on safety for self and others in the immediate environment.

Pertinent and Contemporary Issues (PCIs):

- Disaster Risk Reduction: learner observes safety when role playing on safety of self and others in the immediate environment.
- Safety and Security: safety awareness on threats such as falls, road crashes, slips, trips, and fires is enhanced when sharing ideas and practices on how to protect self and others from threats in the immediate environment.

Link to other Subjects:

Integrated Science when the learner observes safety when working in a science laboratory.

Strand	Sub Strand	Specific Learning Outcomes	Suggested Learning Experiences	Suggested Key Inquiry Question(s)
1.0 Foundations of Pre-Technical Studies	**1.3 Computer Concepts** (6 lessons)	By the end of the sub strand the learner should be able to: a) explain the characteristics of a computer in a user environment, b) classify computers used in day-to-day life, c) use a computer to perform tasks in a user environment, d) acknowledge the importance of different types of computers used in day-to-day life.	The learner is guided to: ● brainstorm on the meaning of the terms; computer, data, and information, ● discuss characteristics of a computer (*speed, accuracy, versatility, reliability, diligence, storage, consistency*), ● download and watch a video clip on classification of computers, ● discuss the classification of computers (*functionality, purpose, and size)* in a user environment, ● interact with different types of computers in the user environment to perform tasks.	1. Why are computers classified differently? 2. How are computers used in day-to-day life?

Core Competencies to be developed:

- Critical Thinking and Problem Solving: learner develops interpretation and inference skills while brainstorming on the meaning of the terms; computer, data, and information.
- Communication and Collaboration: learner develops speaking, listening, and teamwork skills when discussing the classification of computers in a user environment.

Values:

- Responsibility: learner shows accountability by caring for the print or digital media when interacting with different types of computers in the user environment to perform tasks.
- Peace: learner displays patience with peers when discussing the classification of computers.

Pertinent and Contemporary Issues (PCIs):

Cyber Security: learner observes online safety when downloading and watching a video clip on classification of computers.

Link to other Subjects:

The learner is able to relate the skills of interacting with different types of computers to the use of a calculator in Mathematics**.**

SUGGESTED ASSESSMENT RUBRIC

Level / Indicator	Exceeds Expectations	Meets Expectations	Approaches Expectations	Below Expectations
Ability to explain the role of Pre-Technical Studies in day-to-day life.	Explains the role of Pre-Technical Studies in day-to-day life and adds unique details.	Explains the role of Pre-Technical Studies in day-to-day life.	Explains the role of Pre-Technical Studies in day-to-day life omitting a few details.	Explains the role of Pre-Technical Studies in day-to-day life omitting many details.
Ability to observe safety in the immediate environment.	Always observes safety in the immediate environment.	Often observes safety in the immediate environment.	Occasionally observes safety in the immediate environment.	Rarely observes safety in the immediate environment.
Ability to use a computer to perform tasks in a user environment.	Uses a computer to perform all tasks in a user environment.	Uses a computer to perform most of the tasks in a user environment.	Uses a computer to perform some of the tasks in a user environment.	Uses a computer to perform a few of the tasks in a user environment with assistance.

STRAND 2: 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 Introduction to Drawing** (10 lessons)	By the end of the sub strand, the learner should be able to: a) explain the importance of drawing as a means of communication, b) distinguish between artistic and technical drawings used in technical fields, c) print numbers and letters of the alphabet as used in drawing, d) draw types of lines used in drawing, e) illustrate symbols and abbreviations used in drawing, f) appreciate the role of drawing in communication.	The learner is guided to: • discuss the importance of drawing as a means of communication, • brainstorm on the meaning of the terms 'technical drawing' and 'artistic drawing, • use print or online resources to search for information on artistic and technical drawing, • practice printing numbers and letters of the alphabet, • use visual aids to search for information on the types of lines and their application in drawing *(thick and thin continuous, dashed, and chain*). • draw various types of lines (*thick and thin continuous, dashed and chain*) • sketch basic symbols (⌀, ℄, R, ⊥, ▢*)* and abbreviations	How are drawings used in technical communication?

			*(*DRG, A/F, A/C, I/D, O/D*)* used in drawing • use audio-visual aids to study the application of symbols and abbreviations in drawing.	

Core Competencies to be developed:

- Communication and Collaboration: the learner acquires speaking, listening and teamwork skills when brainstorming on the meaning of the terms 'technical drawing' and 'artistic drawing'.
- Digital Literacy: learner develops the skill of interacting with technology when using online resources to search for information on artistic and technical drawing.

Values:

- Respect: learner demonstrates etiquette during discussion of basic symbols and abbreviations used in drawing.
- Responsibility: learner demonstrates accountability when using visual aids to search for information on the types of lines and their application in drawing.

Pertinent and Contemporary Issues (PCIs):

Safety and Security: the learner develops online safety skills during online search for information on different types of drawings used in the technical fields.

Link to other Subjects:

Creative Arts: learner enhances knowledge of artistic drawing when drawing various types of lines 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	**2.2 Free-hand sketching** (10 lessons)	By the end of the sub strand, the learner should be able to: a) Explain the principles of free-hand sketching b) Identify techniques of free-hand sketching c) sketch lines using free-hand, d) sketch 2D shapes using free hand, e) appreciate the importance of free-hand sketching in communication.	Learner is guided to: • discuss the meaning of free-hand sketching as used in Pre-Technical Studies, • use print and digital media to search for information on freehand sketching techniques (*box method, centerline method, hand compass method*),(hatching, cross-hatching, stippling, and blending) • use pencils and drawing papers to sketch lines, • use pencils and drawing papers to sketch two-dimensional shapes, • use digital media, to observe how free-hand sketches express artistic ideas in different career fields,	Why is free-hand sketching important?

Core Competencies to be developed:

- Communication and Collaboration: learner acquires speaking, listening, and teamwork skills when discussing the meaning of free-hand sketching as used in Pre-Technical Studies.
- Digital Literacy: learner develops the skill of interacting with technology when using digital media to observe how free-hand sketches express artistic ideas in different career fields.

Values:

- Respect: learner demonstrates etiquette during discussion of the meaning of free-hand sketching as used in Pre-Technical Studies
- Responsibility: learner demonstrates accountability when using digital media, to observe how free-hand sketches express artistic ideas in different career fields.

Pertinent and Contemporary Issues (PCI's):

Safety and Security: learner develops online safety skills when using digital media to observe how free hand sketches express artistic ideas in different career fields.

Links to other Learning Areas:

Creative arts: learner enhances skill of artistic drawing when using pencils and drawing papers to create lines.

Strand	Sub Strand	Specific Learning Outcomes	Suggested Learning Experiences	Suggested Key Inquiry Question(s)
2.0 Communication in Pre-Technical Studies	**2.3 ICT Tools in Communication** (6 lessons)	By the end of the sub strand, the learner should be able to: a) explain the importance of ICT tools in communication, b) describe the ICT tools used in communication, c) use ICT tools to enhance communication, d) acknowledge the role of communication in Pre-Technical Studies.	The learner is guided to: ● brainstorm and present on the meaning and importance of ICT tools in communication, ● use print or digital media to search for information on ICT tools used in communication *(email, mobile phone, computers, video and web conferencing tools, social networking, and online collaboration)* and present the findings, ● communicate using ICT tools (*send and receive; email, texts, calls, chats, audio, animations and video*).	How are ICT tools used in communication?

Core Competencies to be developed:

- Communication and Collaboration: learner acquires speaking, writing, listening, and teamwork skills while brainstorming and presenting on the meaning and importance of ICT tools in communication.
- Learning to Learn: learner acquires skills of organizing own learning and collaborating with others when using print or digital media to search for information on ICT tools used in communication.
- Digital Literacy: learner develops skills of interacting with technology when using ICT tools to communicate.

Values:

- Respect: learner shows open-mindedness when brainstorming and presenting the meaning and importance of ICT tools in communication.
- Responsibility: learner shows accountability when handling ICT tools to communicate.

Pertinent and Contemporary Issues (PCIs):

Mental Health: learner develops emotional awareness to relate well with peers when brainstorming and presenting on the meaning and importance of ICT tools in communication.

Link to other Subjects:

The learner is able to relate communication concepts to communication skills in English.

SUGGESTED ASSESSMENT RUBRIC

Level / Indicator	Exceeds expectations	Meets expectations	Approaches expectations	Below expectations
Ability to explain the importance of drawing as a means of communication.	Explains the importance of drawing as a means of communication and adds more details.	Explains the importance of drawing as a means of communication.	Explains the importance of drawing as a means of communication leaving out a few details.	Explains the importance of drawing as a means of communication leaving out many details.
Ability to sketch 2D shapes using free hand.	Sketches 2D shapes using free hand with unique and clear details.	Sketches 2D shapes using free hand.	Sketches 2D shapes using free hand with a few unclear details.	Sketches 2D shapes using free hand with many unclear details.
Ability to use ICT tools to enhance communication.	Uses more ICT tools than to enhance communication.	Uses ICT tools to enhance communication.	Uses some of the ICT tools to enhance communication.	Uses only a few of the ICT tools to enhance communication.

STRAND 3: MATERIALS FOR PRODUCTION

Strand	Sub Strand	Specific Learning Outcomes	Suggested Learning Experiences	Suggested Key Inquiry Question(s)
3.0 Materials for Production	**3.1 Introduction to Materials** (6 lessons)	By the end of the sub strand, the learner should be to: a) identify materials used in production, b) distinguish between metallic and non-metallic materials found in the locality, c) describe sustainable ways of using materials in production, d) appreciate the importance of materials in production.	The learner is guided to: • discuss and present the meaning of materials used in production, • use print or digital media to search for information on materials used in production and share with peers, • discuss the differences between metallic and non-metallic materials, • sort out materials in the locality as either metallic or non-metallic, • brainstorm and present sustainable ways of using materials in production, • discuss and make a presentation on the importance of materials used in production.	How are materials used sustainably?

Core Competencies to be developed:

- Self-efficacy: learner develops effective communication skills when discussing and presenting the differences between metallic and non-metallic materials.
- Critical Thinking and Problem Solving: learner develops explanation, evaluation, and decision-making skills while sorting out materials in the locality as either metallic or non-metallic.

Values:

- Responsibility: learner shows accountability as they use print or digital media to search for information on materials used in production.
- Peace: learner displays tolerance and respect for diversity when discussing and presenting the importance of materials used in production.

Pertinent and Contemporary Issues (PCIs):

- Environmental Education: learner acquires skills of protecting natural resources when brainstorming and presenting sustainable ways of using materials in production.

Link to other Subjects:

Social Studies: learner enhances knowledge on economic activities such as mining, fishing and trade as they search for information on materials used in production.

Strand	Sub Strand	Specific Learning Outcomes	Suggested Learning Experiences	Suggested Key Inquiry Question(s)
3.0 Materials for Production	**3.2 Metallic Materials** (10 lessons)	By the end of the sub strand, the learner should be able to: a) identify types of metallic materials used in the immediate environment, b) describe the physical properties of metallic materials found in the immediate environment, c) relate metallic materials to their use in the immediate environment, d) appreciate the use of metallic materials in production.	The learner is guided to: • use print or digital media to search for information on metallic materials, • prepare a checklist for identifying types of metallic materials (*steel, aluminium, copper),* • perform practical activities to examine the physical properties of metallic materials *(magnetism, conductivity of heat and electricity, appearance),* • discuss the physical properties of metallic materials, • match metallic materials to their use in the immediate environment.	How are metallic materials used in day-to-day life?
Core Competencies to be developed: • Digital Literacy: learner develops skills of interacting with technology when searching for information on metallic materials. • Communication and Collaboration: learner acquires speaking, listening, and teamwork skills when discussing the uses of metallic materials.				

Values: • Unity: learner displays team spirit and collaboration with others while discussing the uses of metallic materials. • Responsibility: learner shows accountability by caring for the print or digital media when searching for information on metallic materials.
Pertinent and Contemporary Issues (PCIs): Peer Education and Mentorship: the learner develops inter-personal relationships when performing practical activities to examine the physical properties of metallic materials.
Link to other Subjects: Integrated Science: learner enhances knowledge on properties of materials during discussion of physical properties of metallic materials.

Strand	Sub Strand	Specific Learning Outcomes	Suggested Learning Experiences	Suggested Key Inquiry Question(s)
3.0 Materials for Production	**3.3 Non-Metallic Materials** (10 lessons)	By the end of the sub strand, the learner should be able to: a) identify non-metallic materials found in the locality, b) categorise non-metallic materials as either synthetic or natural, c) describe the physical properties of non-metallic materials found in the locality, d) relate non-metallic materials to their uses in the locality, e) appreciate the use of non-metallic materials in production.	The learner is guided to: • use print or digital media to search for information on non-metallic materials, • discuss the non-metallic materials *(wood, stone, plastics, paper, rubber, cement, glass, ceramics)*, • sort non-metallic materials as either synthetic or natural, • perform practical activities to examine the physical properties of non-metallic materials *(color, texture, hardness, fire resistance)*, • discuss the physical properties of non-metallic materials, • match non-metallic materials to their use in the locality.	Why are non-metallic materials important?

Core Competencies to be developed: • Critical Thinking and Problem Solving: learner develops evaluation and decision skills when sorting non-metallic materials as either synthetic or natural. • Creativity and Imagination: learner develops observation skills when performing practical activities to examine the physical properties of non-metallic materials.
Values: • Peace: learner displays respect for self and peers when discussing non-metallic materials. • Unity: learner displays team spirit and collaboration with others when performing practical activities to examine the physical properties of non-metallic materials.
Pertinent and Contemporary Issues (PCI's): Personal Safety and Security: learner observes safety precautions when performing practical activities to examine the physical properties of non-metallic materials.
Link to other Subjects: Integrated Science: learner enhances knowledge on use of matter during the matching of non- metallic materials to their use in the locality.

SUGGESTED ASSESSMENT RUBRIC				
Level / Indicator	**Exceeds expectations**	**Meets expectations**	**Approaches expectations**	**Below expectations**
Ability to identify materials used in production.	Identifies materials used in production and cites their applications.	Identifies materials used in production.	Identifies most materials used in production.	Identifies a few materials used in production.
Ability to describe the physical properties of metallic materials found in the immediate environment.	Describes the physical properties of metallic materials found in the immediate environment citing examples.	Describes the physical properties of metallic materials found in the immediate environment.	Describes some of the physical properties of metallic materials found in the immediate environment.	Describes only a few of the physical properties of metallic materials found in the immediate environment.
Ability to relate non-metallic materials to their uses in the locality.	Relates non-metallic materials to their uses in the locality and beyond locality.	Relates non-metallic materials to their uses in the locality.	Relates some of the non-metallic materials to their uses in the locality.	Relates a few of the non-metallic materials to their uses in the locality.

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 Measuring and Marking Out Tools** (18 lessons)	By the end of the sub strand, the learner should be able to: a) identify measuring and marking out tools used to perform tasks, b) select measuring and marking out tools for a given task, c) use measuring and marking out tools to perform a given task, d) care for measuring and marking out tools to minimise damage, e) recognise the importance of measuring and marking out tools when performing tasks.	The learner is guided to: • use visual aids and realia to identify measuring tools (*tape measure, steel rule, callipers, weighing balance, stopwatch, ammeter, voltmeter*) and marking out tools (*divider, try-square, marking gauge, dot punch, scriber, pencil, marking knife*), • choose the appropriate measuring and marking out tools to perform a given task, • use available resources to search for information on the use of measuring and marking out tools, • perform specific tasks using measuring and marking out tools, • practice caring for measuring and marking out tools.	1. Why are measuring and marking out tools important in day-to-day life? 2. How are measuring and marking out tools used when performing tasks?

Core Competencies to be developed:

- Critical Thinking and Problem Solving: learner develops explanation, evaluation, and decision-making skills when choosing the appropriate measuring and marking out tools to perform a given task.
- Self-efficacy: learner develops self-awareness skills by showing a concerted attention to detail when performing specific tasks using measuring and marking out tools.

Values:

- Respect: learner shows open-mindedness when discussing the use of measuring and marking out tools in the immediate environment.
- Responsibility: learner shows accountability by caring for measuring and marking out tools in the immediate environment.

Pertinent and Contemporary Issues (PCIs):

Disaster Risk Reduction: learner avoids situations that can lead to injuries when caring for measuring and marking out tools in the immediate environment.

Link to other Subjects:

Mathematics: learner enhances the skill of measurement when performing specific tasks using measuring and marking out tools.

Strand	Sub Strand	Specific Learning Outcomes	Suggested Learning Experiences	Suggested Key Inquiry Question(s)
4.0 Tools and Production	**4.2 Computer Hardware** (14 lessons)	By the end of the sub strand the learner should be able to: a) classify computer hardware devices in a user environment, b) use computer hardware devices to carry out a given task, c) value the importance of computer hardware devices in a user environment.	The learner is guided to: ● brainstorm and present the meaning of the term 'computer hardware, ● use available resources to search for information on categories of computer hardware: input devices (*keying devices, pointing devices, scanning devices, voice input devices, touch screen, digitizer, digital cameras),* output devices (*hardcopy and softcopy),* storage devices *(fixed and removable devices),* ● match available devices to their respective categories, ● perform tasks using computer input, output, and storage devices.	How is computer hardware used?
Core Competencies to be developed: ● Communication and Collaboration: learner acquires speaking, writing, listening, and teamwork skills when brainstorming and presenting on the meaning of the term 'computer hardware'. ● Critical Thinking and Problem Solving**:** learner develops skills of interpretation and inference when categorising computer hardware.				

Values: ● Peace: learner displays tolerance when performing tasks using computer hardware. ● Responsibility: learner shows accountability when using available resources to search for information on categories of computer hardware.
Pertinent and Contemporary Issues (PCIs): Peer Education and Mentorship: learner enhances leadership skills when discussing the categories of computer hardware devices in a user environment.
Link to other Subjects: Integrated Science: learner enhances skills of connecting electric devices when connecting hardware devices.

SUGGESTED ASSESSMENT RUBRIC

Level / Indicator	Exceeds expectations	Meets expectations	Approaches expectations	Below expectations
Ability to identify measuring and marking out tools used to perform tasks.	Identifies measuring and marking out tools used to perform tasks and improvises more tools.	Identifies measuring and marking out tools used to perform tasks.	Identifies measuring and marking out tools used to perform tasks leaving out a few tools.	Identifies measuring and marking out tools used to perform tasks leaving out many tools.
Ability to use measuring and marking out tools to perform a given task.	Uses measuring and marking out tools to perform a given task with high precision and no errors.	Uses measuring and marking out tools to perform a given task.	Uses measuring and marking out tools to perform a given task with a few errors.	Uses measuring and marking out tools to perform a given task with many errors.
Ability to use computer hardware devices to carry out a given task.	Uses computer hardware devices to carry out a given task and innovates more.	Uses computer hardware devices to carry out a given task.	Uses some of the computer hardware devices to carry out a given task.	Uses only a few of the computer hardware devices to carry out a given task.

STRAND 5: ENTREPRENEURSHIP

Strand	Sub Strand	Specific Learning Outcomes	Suggested Learning Experiences	Suggested Key Inquiry Question(s)
5.0 Entrepreneurship	**5.1 Introduction to Entrepreneurship** (4 lessons)	By the end of the sub strand, the learner should be able to: a) explain the importance of entrepreneurship in the community, b) describe the qualities of an entrepreneur in business, c) explore sources of business ideas for a business venture, d) appreciate the role of entrepreneurship in a community.	The learner is guided to: • brainstorm and present the meaning of the terms 'entrepreneur' and 'entrepreneurship, • discuss and present the importance of entrepreneurship in the community, • use print or digital resources to search for information on the qualities of an entrepreneur, • conduct self-assessment on entrepreneurial qualities, • use available resources to search for and present the meaning and sources of business ideas, • discuss the role of entrepreneurship in a community.	1. Why is entrepreneurship important in the community? 2. What are the qualities of an entrepreneur?

Core Competencies to be developed:

- Communication and Collaboration: learner acquires speaking, writing, listening, and teamwork skills when brainstorming and presenting on the meaning the meaning of the terms ‘entrepreneur’ and ‘entrepreneurship’.
- Critical Thinking and Problem Solving: learner acquires evaluation and decision-making skills when conducting a self-assessment on entrepreneurial qualities.

Values:

- Unity: learner displays team spirit when discussing and presenting the importance of entrepreneurship to an individual and community.
- Responsibility: learner engages in the use of available resources to search for and present the meaning and sources of business ideas.

Pertinent and Contemporary Issues (PCIs):

Financial Literacy: learner develops entrepreneurial skills when conducting self-assessment on entrepreneurial qualities.

Link to other Subjects:

Social Studies: learner enhances knowledge on trading activities when discussing the role of entrepreneurship in a community.

Strand	Sub Strand	Specific Learning Outcomes	Suggested Learning Experiences	Suggested Key Inquiry Question(s)
5.0 Entrepreneurship	**5.2 Production Unit** (6 lessons)	By the end of the sub strand, the learner should be able to: a) explain the factors considered when locating a production unit, b) analyse the factors determining the size of a production unit, c) value the importance of locating a production unit in a suitable area.	The learner is guided to: ● discuss the meaning of the term 'production unit' and present it to peers, ● brainstorm and present the factors considered when choosing the location of a production unit, ● visit the local community to assess the factors that influenced the location of a particular production unit (*Posho mill, salon, barber shop, welding, cybercafé*), ● use print or digital media to search for information on the factors that determine its size and share with peers.	How is the size of a production unit determined?
Core Competencies to be developed: • Communication and Collaboration: learner acquires speaking, writing, listening, and teamwork skills when discussing and presenting the meaning of the term 'production unit'. • Critical Thinking and Problem Solving: learner acquires interpretation and inference skills when visiting the local community to assess the factors that influenced the location of a particular production unit.				

Values:

- Responsibility: learner shows accountability when using print or digital media to search for information on the factors that determine its size and share with peers.
- Respect: learner shows regard for the input of every member when brainstorming and presenting on the factors considered when choosing the location of a production unit.

Pertinent and Contemporary Issues (PCIs):

Financial Literacy: learner develops entrepreneurial skills when brainstorming and presenting the factors considered when choosing the location of a production unit.

Link to other Subjects:

Social Studies: learner enhances knowledge on trade when brainstorming on factors considered when choosing the location of a production unit.

Strand	Sub Strand	Specific Learning Outcomes	Suggested Learning Experiences	Suggested Key Inquiry Question(s)
5.0 Entrepreneurship	**5.3 Financial Goals** (10 lessons)	By the end of the sub strand, the learner should be able to: a) explain the importance of setting goals in financial management, b) analyse the factors to consider when setting financial goals, c) formulate financial goals for individual development, d) observe financial discipline in financial management.	The learner is guided to: • discuss and present the meaning and importance of setting goals in financial management, • engage with a resource person on the importance of financial discipline, • brainstorm and present the factors to consider when setting financial goals, • use print or digital media to search for information on setting financial goals, • set Specific Measurable Achievable Realistic and Time-bound (SMART) financial goals.	1. Why is it important to set financial goals? 2. What are the factors to consider when setting financial goals?
Core Competencies to be developed: • Self-efficacy: learner acquires the skill of task execution when setting SMART financial goals. • Critical Thinking and Problem Solving: learner acquires interpretation and inference skills when brainstorming on the factors to consider when setting financial goals.				

Values: • Responsibility: learner engages in assigned roles and duties when discussing and presenting on the meaning and importance of goal setting as used in financial management. • Respect: learner shows regard for the input of every member when brainstorming and presenting on the factors to consider when setting financial goals.
Pertinent and Contemporary Issues (PCIs): Financial Literacy: learner acquires financial skills when setting SMART financial goals.
Link to other Subjects: Social Studies: learner enhances skills of personal goal setting when setting SMART financial goals.

SUGGESTED ASSESSMENT RUBRIC

Level / Indicator	Exceeds expectations	Meets expectations	Approaches expectations	Below expectations
Ability to describe the qualities of an entrepreneur in business.	Describes all the qualities of an entrepreneur.	Describes most of the qualities of an entrepreneur.	Describes some qualities of an entrepreneur.	Describes a few qualities of an entrepreneur with assistance.
Ability to explore sources of generating business ideas for a business venture.	Explores all sources of generating business ideas for a business venture.	Explores most sources of generating business ideas for a business venture.	Explores some of the sources of generating business ideas for a business venture.	Explores a few of the sources of generating business ideas for a business venture with guidance.
Ability to analyse factors determining the size of a production unit.	Analyses all the factors determining the size of a production unit.	Analyses most of the factors determining the size of a production unit.	Analyses some of the factors determining the size of a production unit.	Analyses a few of the factors determining the size of a production unit with prompt.

APPENDIX 1: GUIDELINES FOR INTEGRATING COMMUNITY SERVICE LEARNING PROJECT

Introduction

Community Service Learning (CSL) is an experiential learning strategy that integrates classroom learning and community service, enabling learners to reflect on, experience, and learn from the community. The CSL activity is hosted as a strand within Social Studies. The Social Studies teacher will be responsible for coordinating teachers from other learning areas to carry out the integrated CSL class activity. Learners will be expected to apply knowledge, skills, attitudes and values from the different Learning Areas to carry out the integrated CSL class activity. Learners will undertake one common integrated class CSL activity following a 6-step milestone approach that is:

Milestone	**Description**
Milestone 1	**Problem Identification** Learners study their community to understand the challenges faced and their effects on community members.
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.

Assessment of CSL integrated Activity

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

APPENDIX 2: SUGGESTED 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 Introduction to Pre-Technical Studies**	• Question and Answer • Observation • Written Test • Practical Work • Peer and Self-Assessment	• Pre-Technical Studies curriculum design • Pre-Technical Studies handbook • Digital devices such as; computers laptops, smartphones, and tablets among others • Relevant approved textbooks and reference materials • Photographs and pictures • Charts	• Discuss the role of Pre-Technical studies in clubs and societies.

	1.2 Safety in the Immediate Environment	• Question and Answer • Observation • Written Test • Practical Work • Peer and Self-Assessment	• Workshop attires such as; overcoats, aprons, shoes, and goggles, among others. • Career brochures, career magazines • Digital devices such as; computers, laptops, smartphones, and tablets, among others	• Learners visit the locality to observe how workers practice safety as they perform tasks • Debate in clubs and societies on safety in the immediate environment
	1.3 **Computer Concepts**	• Question and Answer • Observation • Written Test • Practical Work • Peer and Self-Assessment	• Course books, • Computer user manuals, • Internet, • Video clips • Digital devices such as; computers, laptops, smart phones, tablets among others.	• Demonstrate how to use ICT tools (Calculators, Smartphones, Tablets, DVD players, Digital watches) during clubs and societies

2.0 Communication in Pre-Technical Studies	**2.1 Introduction to Drawing**	• Question and Answer • Observation • Written Test • Peer and Self-Assessment	• Drawing charts • Drawing papers/books • brochures and magazines • Geometrical set	• Learners visit the locality to observe how different types of drawings are done and how they are used in the community learners discuss types of drawing in out-of-class school programmes
	2.2 Freehand sketching	• Checklist • Observation • Peer and self-assessment	• Drawing charts • Drawing pencils, • Drawing papers/books	• Learners to practise freehand drawing during clubs
	2.3 ICT tools in communication	• Question and Answer • Observation • Written Test • Peer and Self-Assessment	• Digital devices such as; computers, laptops, smartphones, and tablets, among others. • Internet • Social media applications	• Social media charting • Video conferencing

3.0 Materials for Production	**3.1 introduction to materials**	• Question and Answer • Observation • Written Test • Peer and Self-Assessment	• Pre-Technical Studies curriculum design • Pre-Technical Studies handbook • Digital devices such as; computers, laptops, smartphones, and tablets, among others • Metallic and non-metallic materials • Relevant approved textbooks and reference materials • Photographs and pictures • Charts	• Carry out activity involving sorting materials during clubs and societies
	3.2 Metallic Materials	• Question and Answer • Observation • Written Test • Peer and Self-Assessment • Practical Work	• Metallic materials (steel, aluminium, copper) • brochures and magazines • Digital devices such as; computers, laptops, smartphones, and tablets, among others	• Learners visit the local community to collect metallic materials and write down how each is used by the local community • Discuss the uses of metallic materials in clubs and societies

	3.3 Non-Metallic Materials	• Question and Answer • Observation • Written Test • Peer and Self-Assessment • Practical Work	• Non-Metallic materials (wood, plastics, ceramic, paper, rubber, glass, cement, stone) • brochures and magazines • Digital devices such as; computers, laptops, smartphones, and tablets, among others Digital devices such as; computer, laptop, smartphone, tablets among others	• Learners visit a local community collect non-metallic materials and write down how each is used by the local community • Discuss the uses of non-metallic materials in clubs and societies
4.0 Tools and Production	**4.1 Measuring and Marking Out Tools**	• Question and Answer • Observation • Written Test • Peer and Self-assessment • Practical Work	• Measuring tools (Tape measure, steel rule, callipers, weighing balance, stopwatch, ammeter, voltmeter) • Marking out tools (divider, try-square, marking gauge, dot punch, scriber, pencil, marking knife) in the immediate environment • brochures and magazines	• Learners visit locality to observe the use of measuring and marking out tools in performing different tasks • Discuss the uses of measuring and marking out tools in clubs and societies

			• Digital devices such as; computers, laptops, smartphones, and tablets, among others.	
	4.2 computer hardware	• Question and Answer • Observation • Written Test • Practical Work • Learner's Profile • Peer and Self-Assessment • Portfolio	• Computer hardware • Approved textbooks • Internet connectivity • video and audio clips • Charts and pictures	• Community sensitisation on the use of computer hardware • Field visits
5.0 Entrepreneurship	**5.1 Introduction to Entrepreneurship**	• Question and Answer • Observation • Written Test • Peer and Self-Assessment	• Pre-Technical Studies curriculum design • Pre-Technical Studies handbook • Digital devices such as; computers, laptops, smartphones, and tablets among others • Relevant approved textbooks and reference materials • Photographs and pictures • Charts	• Discuss business ideas and opportunities in financial literacy and other school clubs and societies • Organised and planned field visits in the local community to engage with entrepreneurs • Participate in a talk by a volunteer resource person on the qualities of an entrepreneur

	5.2 production unit	• Question and answer • learner's profile • written tests • observation • Peer and self-assessment	• Approved textbooks • Digital devices, • brochures • pictures • charts	• Field visits activities • Business clubs
	5.3 **Financial Goals**	• Question and Answer • Observation • Written Test • Peer and Self-Assessment • Practical Work	• Pre-Technical Studies curriculum design • Pre-Technical Studies handbook • Digital devices such as; computers, laptops, smartphones, and tablets, among others • Relevant approved textbooks and reference materials • Photographs and pictures • Charts	• Discuss factors to consider when setting financial goals in financial literacy and other school clubs and societies • Participating in a talk by a volunteer resource person setting financial goals • Posters with messages on SMART financial goals