



KENYA INSTITUTE OF CURRICULUM DEVELOPMENT

A Skilled and Ethical Society

JUNIOR SCHOOL CURRICULUM DESIGN

PRE-TECHNICAL STUDIES GRADE 7



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FOREWORD

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

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

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 rubrics. 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 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 Secondary education level. 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 7 curriculum designs 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 offers 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 smooth transition to 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, 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 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 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,

We also wish to acknowledge the KICD curriculum developers and other staff, all teachers, 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) for their support in the process of developing these designs. Finally, we are very grateful to the KICD Council Chairperson and other members of the Council for very consistent guidance in the process.

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

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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

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 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 is an integrated learning area comprising of Business, Computer and Technical Studies learning areas. It builds on 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 considered 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, Kenya Vision 2030 on making education responsive to education needs, 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. It is also informed by the National ICT Policy of Kenya 2016 (revised 2020), which emphasises on use of 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 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 Introduction to Pre-Technical Studies	4
Studies	1.2 Safety in the Immediate environment	6
	1.3 Computer Concepts	6
2.0 Communication in Pre-	2.1 Introduction to Drawing	6
Technical studies	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 2	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	Suggested Learning Experiences	Suggested Key
		Outcomes		Inquiry Question(s)
1.0 Foundations	1.2 Safety in	By the end of the sub	The learner is guided to:	1. Why is safety in the
of Pre-Technical	the Immediate	strand, the learner should	 brainstorm with peers on 	immediate
Studies	Environment	be able to:	potential safety threats in the	environment
		a) identify potential safety	immediate environment	important?
	(6 lessons)	threats in the immediate	(physical and online),	2. How can online
		environment,	• use print or digital media to	threats be
		b) outline safety rules and	search for information on	safeguarded
		regulations for a given	potential hazards to personal	against?
		situation,	safety in the environment,	
		c) observe safety in the	• use print or digital media to	
		immediate	search for information on	
		environment,	physical threats to digital	
		d) appreciate the	devices (theft, natural disasters,	
		importance of	hardware failure) and online	
		observing safety in the	threats in the immediate	
		immediate	environment and list them	
		environment.	(cyberbullying, impersonation,	
			phishing, hacking, friend	
			requests from unknown people),	
			• share ideas and practice on how	
			to keep personal and sensitive	
			data from public when online,	
			•	



 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.

- 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 is enhanced when sharing ideas and practices on how to protect personal data when online.

Link to Other Subjects:

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



Strand	Sub Strand	Specific Learning	Suggested Learning Experiences	Suggested Key
		Outcomes		Inquiry Question(s)
1.0 Foundations of Pre-Technical Studies	1.3 Computer Concepts (6 lessons)	Outcomes 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-day life, c) use a computer to perform tasks in a user environment, d) acknowledge the importance of different types of computers used in	 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 classification of computers (functionality, purpose and size) in a user environment, interact with different types of 	•
		day-day life.	computers in the user environment to perform tasks.	

- 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	Exceeds Expectations	Meets Expectations	Approaches	Below Expectations
Indicator			Expectations	
Ability to explain the	Explains the role of	Explains the role of	Explains the role of	Explains the role of
role of Pre-Technical	Pre-Technical Studies	Pre-Technical Studies	Pre-Technical Studies	Pre-Technical Studies
Studies in day- to-day	in day- to-day life and	in day- to-day life	in day- to-day life	in day- to-day life
life	adds unique details		omitting few details	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	Uses a computer to	Uses a computer to	Uses a computer to	Uses a computer to
computer to perform	perform all tasks in a	perform most of the	perform some of the	perform a few of the
tasks in a user	user environment	tasks in a user	tasks in a user	tasks in a user
environment		environment	environment	environment with a
				assistance



STRAND 2: COMMUNICATION IN PRE-TECHNICAL STUDIES

Strand	Sub Strand	Specific Learning	Suggested Learning	Suggested Key
		Outcomes	Experiences	Inquiry Question(s)
2.0 Communication	2.1 Introduction	By the end of the sub	The learner is guided to:	How are drawings
in Pre-Technical	to Drawing	strand, the learner should	• discuss the importance of	used in technical
Studies		be able to:	drawing as a means of	communication?
	(10 lessons)	a) explain the	communication,	
		importance of	• brainstorm on the meaning of	
		drawing as a means	the terms 'technical drawing'	
		of communication,	and 'artistic drawing,	
		b) distinguish between	• use print or online resources to	
		artistic and technical	search for information on	
		drawings used in	artistic and technical drawing,	
		technical fields,	 practice printing numbers and 	
		c) print numbers and	letters of the alphabet,	
		letters of the alphabet	• use visual aids to search for	
		as used in drawing,	information on the types of	
		d) draw types of lines	lines and their application in	
		used in drawing,	drawing (thick and thin	
		e) illustrate symbols and	continuous, dashed and	
		abbreviations used in	chain).	
	Ì	drawing,	 draw various types of lines 	
		f) appreciate the role of	(thick and thin continuous,	
		drawing in	dashed and chain)	
		communication.	• sketch basic symbols (Ø, £, R,	



⊥, □) and abbreviations (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

- 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 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 shape, use digital media, to observe how free hand sketches express artistic ideas in different career fields, 	Why is free-hand sketching important?

• 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	Suggested Learning	Suggested Key
		Outcomes	Experiences	Inquiry Question(s)
2.0 Communication	2.3 ICT tools in	By the end of the sub	The learner is guided to:	How are ICT tools
in Pre-Technical	Communication	strand, the learner should	 brainstorm and present on 	used in
Studies	(6 lessons)	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	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	communication?
		Pre-Technical Studies.	tools (send and receive; email, texts, calls, chats, audio, animations and video).	

- 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	Exceeds expectations	Meets expectations	Approaches	Below expectations
Indicator			expectations	
Ability to explain the	Explains the	Explains the	Explains the importance	Explains the importance of
importance of drawing	importance of drawing	importance of	of drawing as a means	drawing as a means of
as a means of	as a means of	drawing as a means	of communication	communication leaving
communication	communication and	of communication	leaving out a few details	out many details
	adds more details			-
Ability to sketch 2D	Sketches 2D shapes	Sketches 2D shapes	Sketches 2D shapes	Sketches 2D shapes using
shapes using free hand.	using free hand with	using free hand.	using free hand with a	free hand with many
	unique and clear		few unclear details	unclear details
	details			
Ability to use ICT	Uses more ICT tools	Uses ICT tools to	Uses some of the ICT	Uses only a few of the
tools to enhance	than to enhance	enhance	tools to enhance	ICT tools to enhance
communication	communication	communication	communication	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 on 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 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, aluminum, 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 	How are metallic materials used in day-to-day life?
			use in the immediate environment.	

- 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	Suggested Learning Experiences	Suggested Key
		Outcomes		Inquiry Question(s)
3.0 Materials	3.3 Non-	By the end of the sub strand,	The learner is guided to:	Why are non-metallic
for Production	Metallic Materials (10 lessons)	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.	 use print or digital media to search for information on nonmetallic 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. 	materials important?

- 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	Exceeds expectations	Meets expectations	Approaches expectations	Below expectations	
Indicator	_	_		_	
Ability to identify	Identifies materials	Identifies materials	Identifies most materials	Identifies few materials	
materials used in	used in production and	used in production	used in production	used in production	
production	cites their applications				
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, stop watch, 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?

• 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	Suggested Learning Experiences	Suggested Key
		Outcomes		Inquiry Question(s)
4.0 Tools and Production	4.2 Computer Hardware (14 lessons)	_	The learner is guided to: • brainstorm and present on 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.	

- 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	Exceeds expectations	Meets expectations	Approaches	Below expectations
Indicator			expectations	
Ability to identify	Identifies measuring	Identifies measuring	Identifies measuring and	Identifies measuring
measuring and	and marking out tools	and marking out tools	marking out tools used	and marking out tools
marking out tools used	used to perform tasks	used to perform tasks	to perform tasks leaving	used to perform tasks
to perform tasks	and improvises more		out a few tools	leaving out many tools
	tools			
Ability to use	Uses measuring and	Uses measuring and	Uses measuring and	Uses measuring and
measuring and	marking out tools to	marking out tools to	marking out tools to	marking out tools to
marking out tools to	perform a given task	perform a given task	perform a given task	perform a given task
perform a given task	with high precision and		with a few errors	with many errors
	no errors			
Ability to use	Uses computer	Uses computer	Uses some of the	Uses only a few of the
computer hardware	hardware devices to	hardware devices to	computer hardware	computer hardware
devices to carry out a	carry out a given task	carry out a given task	devices to carry out a	devices to carry out a
given task,	and innovates more		given task	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 on the importance of entrepreneurship in the community, use print or digital resources to search for information on 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 	1. Why is entrepreneurship important in the community? 2. What are the qualities of an entrepreneur?



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		community.	1
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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 terms 'entrepreneur' and 'entrepreneurship'.
- Critical Thinking and Problem Solving: learner acquires evaluation and decision-making skills when conducting 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 use 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	Suggested Learning Experiences	Suggested Key
		Outcomes		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,	 The learner is guided to: discuss the meaning of the term 'production unit' and present 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 	How is the size of a production unit determined?
		c) value the importance of locating a production unit in a suitable area.	 production unit (<i>Posho mill</i>, 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. 	

Core competencies to be developed:

- Communication and collaboration: learner acquires speaking, writing, listening, and teamwork skills when discussing and presenting on 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 brainstorm on factors considered when choosing the location of a production unit .



Strand	Sub Strand	Specific Learning Outcomes	Suggested Learning Experiences	Suggested Key Inquiry
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 on 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. 	Question(s) 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	Exceeds expectations	Meets expectations	Approaches	Below expectations
Indicator			expectations	
Ability to describe the	Describes all the	Describes most of	Describes some	Describes a few qualities
qualities of an	qualities of an	qualities of an	qualities of an	of an entrepreneur with
entrepreneur in	entrepreneur	entrepreneur	entrepreneur	assistance
business				
Ability to explore	Explores all sources of	Explores most of	Explores some of the	Explores a few of the
sources of generating	generating business	sources of generating	sources of generating	sources of generating
business ideas for a	ideas for a business	business ideas for a	business ideas for a	business ideas for a
business venture	venture	business venture	business venture	business venture with
				guidance
Ability to analyse	Analyses all the factors	Analyses most of the	Analyses some of the	Analyses a few of the
factors determining the	determining the size of	factors determining the	factors determining the	factor determining the
size of a production unit	a production unit	size of a production	size of a production unit	size of a production unit
		unit		with prompt



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

Introduction

Community Service Learning (CSL) is an experiential learning strategy that integrates classroom learning and community service to enable learners reflect, experience and learn from the community. The CSL activity is hosted as a strand in Social Studies. The Social Studies teacher will be expected to coordinate 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 undertake 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 end product. This entails assessing each of the milestone stages of the integrated CSL class activity. It will focus on 3 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, smart phones, 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	Question and Answer	• Workshop attires such as; overcoats,	Learners visit the locality to observe how
	environment	ObservationWritten test	aprons, shoes, googles among	workers practice safety as they perform tasks



		 Practical work Peer and self-assessment 	 others Career brochures, career magazines Digital devices such as; computers, laptops, smart phones, tablets among others 	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 on types of drawing in out



				of class school programmes
	2.2 Freehand sketching	ChecklistObservationPeer and self-assessment	Drawing chartsDrawing 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, smart phones, 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, 	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 	laptops, smart phones, tablets among others • Metallic and non- metallic materials • Relevant approved textbooks and reference materials • Photographs and pictures • Charts • Metallic materials (steel, aluminium, copper) • brochures and magazines • Digital devices such as; computer, laptop, smart phone, tablets among others	 Learners visit local community and 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- 	Non-Metallic materials (wood, plastics, ceramic, paper, rubber, glass, cement,	Learners visit local community and collect non-metallic materials and write down how each is used by the



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		assessment	stone)	local community
		Practical work	 brochures and 	• Discuss the uses of
			magazines	non-metallic materials
			 Digital devices 	in clubs and societies
			such as; computer,	
			laptop, smart	
			phone, tablets	
			among others	
			Digital devices	
			such as; computer,	
			laptop, smart	
			phone, tablets	
			among others	
4.0 Tools and	4.1 Measuring and	Question and	Measuring tools	Learners visit locality
Production	Marking Out Tools	Answer	(Tape measure,	to observe the use of
		Observation	steel rule, callipers,	measuring and
		• Written test	weighing balance,	marking out tools in
		Peer and self-	stop watch,	performing different
			ammeter,	tasks
		assessment	voltmeter)	Discuss the uses of
		Practical work	Marking out tools	measuring and
			_	marking out tools in
			(divider, try-square,	clubs and societies
			marking gauge, dot	clubs and societies
			punch, scriber,	
			pencil, marking	
			knife) in the	



	T	1	T	T
			immediate	
			environment	
			 brochures and 	
			magazines	
			Digital devices	
			such as; computer,	
			laptop, smart	
			phone, tablets	
			among others	
	4.2 computer hardware	 Question and 	 computer hardware 	• community sensitisation
		Answer	 Approved textbooks 	on the use of computer
		 Observation 	 Internet connectivity 	hardware
		 Written test 	• video and audio clips	 Field visits
		 Practical work 	 Charts and pictures 	
		learner's profile		
		 peer and self- 		
		assessment		
		portfolio		
5.0	5.1 Introduction to	Question and	Pre-Technical	Discuss business ideas
Entrepreneurship	Entrepreneurship	Answer	Studies curriculum	and opportunities in
Entrepreneursing	Entrepreneursmp		design	Financial literacy and
		Observation	_	other school clubs and
		Written test	Pre-Technical	
		Peer and self-	Studies handbook	societies
		assessment	 Digital devices 	Organised and planned
			such as; computers,	field visits in the local
			laptops, smart	community to engage



T		1	1
		phones, tablets among others • Relevant approved textbooks and reference materials • Photographs and pictures • Charts	with entrepreneurs Participate in a talk by a volunteer resource person on the qualities of an entrepreneur •
ora production dime	 Question and answer learner's profile written tests observation Peer and self-assessment 	 Approved textbooks Digital devices, brochures pictures charts 	Field visits activitiesBusiness 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, smart phones, tablets among others Relevant approved 	 Discuss on 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



		textbooks and reference materials	on SMART financial goals
	•	Photographs and	
		pictures	
	•	Charts	

