

KENYA INSTITUTE OF CURRICULUM DEVELOPMENT *A Skilled and Ethical Society*

JUNIOR SCHOOL CURRICULUM DESIGN

PRE-TECHNICAL STUDIES

GRADE 7

First published 2022

Revised 2024

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ISBN:

Published and printed by Kenya Institute of Curriculum Development

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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 AT JUNIOR SCHOOL

S/No	Learning Area	Number of Lessons
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 and Nutrition	4
9.	Creative Arts and Sports	5
Total		40

* 1 lesson is set aside for the Pastoral/Religious Instruction Programme.

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 the Work Environment, 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 in both personal life and the world of work.

This learning area is anchored in National Goals of Education No. 2 on providing 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 recommend 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.

GENERAL LEARNING OUTCOMES

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

- 1. Communicate effectively through the use of information communication technology and innovation.
- 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 work 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
1.0 Foundations of Pre -Technical Studies	1.1 Introduction to Pre-Technical Studies
	1.2 Safety in the Work Environment
	1.3 Computer Concepts
2.0 Communication	2.1 Fundamentals of Communication
	2.2 Introduction to Drawing
	2.3 Plane Geometry
3.0 Materials for Production	3.1 Economic Resources
	3.2 Metallic Materials
	3.3 Non-Metallic Materials
4.0 Tools and Production	4.1 Measuring and Marking Out Tools
	4.2 Production of Goods and Services
5.0 Entrepreneurship	5.1 Introduction to Entrepreneurship
	5.2 Money
	5.3 Financial Goals

Strand	Sub Strand	Specific Learning Outcomes	Suggested Learning	Suggested Key
			Experiences	Inquiry Question(s)
1.0 Foundations	1.1 Introduction	By the end of the sub strand,	The learner is guided to:	Why is Pre-
of Pre -Technical	to Pre-	the learner should be able to:	• brainstorm on the	Technical Studies
Studies	Technical	a) identify the components of	components of Pre-	important in day-to-
	Studies	Pre-Technical Studies as a	Technical Studies as a	day life?
		learning area,	learning area	
	(4 lessons)	b) explain the role of Pre-	• discuss and present the	
		Technical Studies in day-	role of Pre-Technical	
		to-day life,	Studies in day-to-day life	
		c) embrace Pre-Technical	• debate on the role of Pre-	
		Studies in career	Technical Studies in day-	
		development.	to-day life.	

STRAND 1.0: FOUNDATIONS OF PRE -TECHNICAL STUDIES

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 Work	strand, the learner should	• brainstorm with peers on	work environment
of Pre-Technical Studies	the Work Environment (6 lessons)	 strand, the learner should be able to: a) identify potential safety threats in a work environment, b) outline safety rules and regulations in the work environment, c) observe safety in a work environment, d) appreciate the importance of 	 brainstorm with peers on potential safety threats in a work environment (<i>physical</i> <i>and online</i>) use print or digital media to search for information on potential hazards to personal safety in a work environment use print or digital media to search for information on physical threats to digital devices (<i>theft, natural</i> 	 work environment important? How can online threats be safeguarded against?
		observing safety in a work environment.	 disasters, hardware failure) and online threats in a work environment and list them (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 in a work environment role play on safety for self and
	others in a work 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 work environment.
- Digital Literacy: learner develops skills of interacting with technology when searching for information on potential hazards to personal safety in a work 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 a work environment.

Pertinent and Contemporary Issues (PCIs):

- Disaster Risk Reduction: learner observes safety when role playing on safety of self and others in a work 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 Outcomes	Suggested Learning Experiences	Suggested Key Inquiry Question(s)
1.0 Foundations of Pre-Technical Studies	1.3 Computer Concepts (6 lessons)		 The learner is guided to: brainstorm on the meaning of the terms; computer, data and information discuss on characteristics of a computer (<i>speed, accuracy, versatility, reliability, diligence, storage, consistency</i>) download and watch a video clip on classification of computers discuss classification of computers (<i>functionality, purpose and size</i>) in a user environment interact with different types of computers in the user environment to perform tasks 	Why are there different classes of computers?

• Critical Thinking and Problem Solving: learner develops interpretation and inference skills when 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:

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.

Assessment Rubric					
Level Indicator	Exceeds Expectations	Meets Expectations	Approaches Expectations	Below Expectations	
Ability to observe safety in a work environment	Consistently observes safety in a work environment	Often observes safety in a work environment	Occasionally observes safety in a work environment	Rarely observes safety in a work environment	
Ability to use a computer to perform tasks in a user environment	Uses a computer to perform tasks in a user environment and assists others	Uses a computer to perform tasks in a user environment	Uses a computer to perform tasks in a user environment with minimal assistance	Uses a computer to perform tasks in a user environment with a lot of assistance	

STRAND 2: COMMUNICATION

Strand	Sub Strand	Specific Learning Outcomes	Suggested Learning Experiences	Suggested Key Inquiry Question(s)
2.0 Communication	2.1 Fundamentals of Communication (6 lessons)	By the end of the sub strand, the learner should be able to: a) explain the importance of communication in work environment, b) describe the ICT tools used in communication, c) use ICT to enhance communication, d) acknowledge the role of effective communication in the work environment.	 The learner is guided to: brainstorm and present on the meaning and importance of communication in the work environment role play the importance of effective communication in work environment 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) discuss ICT tools used in communication use ICT tools and internet to communicate discuss the benefits and challenges of the internet 	 Why is communication in the work environment important? How is ICT used in communication?

- Communication and Collaboration: learner acquires speaking, writing, listening, and teamwork skills when role playing the importance of effective communication in work environment
- 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: the learner develops skills of interacting with technology when using ICT tools and internet to communicate

Values:

- Respect: learner shows open-mindedness when brainstorming and presenting the meaning and importance of communication in the work environment.
- Responsibility: learner shows accountability by engaging in assigned roles and duties when role playing the importance of effective communication in work environment.

Pertinent and Contemporary Issues (PCIs):

Mental Health: learner develops emotional awareness to relate well with peers when role playing on the importance of effective communication in work environment.

Link to Other Subjects:

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

Strand	Sub Strand	Specific Learning Outcomes	Suggested Learning Experiences	Suggested Key Inquiry Question(s)
2.0 Communication	2.2 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 in drawing <i>(thick and thin continuous, dashed and chain)</i> draw various types of lines <i>(thick and thin continuous, dashed and chain)</i> 	Why is drawing referred to as a universal way of 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
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- 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: the learner demonstrates etiquette during discussion of basic symbols and abbreviations used in drawing.
- Responsibility: the 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 as the learner illustrates artistic drawings.

Strand	Sub-Strand	Specific Learning Outcomes	Suggested Learning Experiences	Suggested Key Inquiry Question(s)
2.0 Communication	2.3 Plane Geometry (8 Lessons)	 By the end of the sub strand, the learner should be able to: a) describe methods of dimensioning drawings in plane geometry, b) construct combined shapes used in a work environment, c) dimension combined shapes in plane geometry, d) embrace the use of plane geometry in a work environment. 	 The learner is guided to: brainstorm on methods of dimensioning (<i>linear, radial, angular, arc</i>), illustrate types of lines used in dimensioning, use visual aids to identify combined shapes, discuss how to draw combined shapes, use electronic or print media to search for information on methods of dimensioning combined shapes, discuss forms of dimensioning combined shapes (<i>parallel, chain, combined</i>), draw and dimension combined shapes in plane geometry. 	How are combined shapes applied in day-to-day life?

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

Values:

- Responsibility: learner engages in assigned roles and duties when drawing and dimensioning combined shapes in plane geometry.
- Respect: learner appreciates diverse opinions when discussing how to draw combined shapes.

Pertinent and Contemporary Issues (PCIs):

Social cohesion: learners work together harmoniously when discussing how to draw combined shapes.

Link to other subjects

The learner is able to relate the skills used in drawing to geometrical construction in Mathematics.

Assessment Rubric				
Level	Exceeds expectation	Meets expectation	Approaches	Below expectation
Indicator			expectation	
Ability to use ICT	Uses more than five	Uses five ICT tools to	Uses between three	Uses less than three ICT
tools to enhance	ICT tools to enhance	enhance	and four ICT tools to	tools to enhance
communication	communication	communication	enhance	communication
			communication	
Ability to construct	Constructs regular	Constructs regular	Constructs regular	Constructs regular
regular combined	combined shapes	combined shapes	combined shapes	combined shapes leaving
shapes applied in day-	applied in day-to-day	applied in day-to-day	leaving out a few	out many details
to-day life	life creatively	life	details	
Ability to dimension	Dimensions regular	Dimensions regular	Dimensions regular	Dimensions regular
regular combined	combined shapes in a	combined shapes in a	combined shapes in a	combined shapes in a
shapes in a given	given dimension style	given dimension style	given dimension style	given dimension style with
dimension style	with high accuracy		with few errors	many errors

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 Economic Resources (6 lessons)	 By the end of the sub strand, the learner should be to: a) explain the characteristics of economic resources used for production of goods and services, b) classify economic resources in Kenya, c) distinguish between metallic and nonmetallic materials as economic resources, d) analyse sustainable ways of using economic resources in Kenya, e) practice sustainable use of economic resources in the community. 	 The learner is guided to: discuss and present on the meaning of economic resources use print or digital media to search for information on the characteristics of economic resources and share with peers read and analyse a case study on classification and types of economic resources in Kenya discuss metallic and non-metallic materials as economic resources carry out resource mapping on types of economic resources to establish distribution of economic resources in Kenya brainstorm and present sustainable ways of using economic resources in Kenya. 	 What are economic resources? How can economic resources be used sustainably?

- Communication and Collaboration: learner acquires reading, writing, speaking, listening, and teamwork skills when discussing and presenting on the meaning of economic resources.
- Self Efficacy: learner develops effective communication skills when brainstorming and presenting on the sustainable ways of using economic resources.
- Critical Thinking and Problem Solving: learner develops explanation, evaluation and decision-making skills when carrying out resource mapping in the local community.

Values:

- Respect: learner shows open-mindedness when discussing and presenting on the meaning of economic resources.
- Responsibility: learner shows accountability by engaging in assigned roles and duties when carrying out resource mapping on types of economic resources
- Peace: learner displays tolerance and respect for diversity when brainstorming and presenting sustainable ways of using economic resources in Kenya.

Pertinent and Contemporary Issues (PCIs):

Environmental Education: learner acquires skills of protecting natural resources when brainstorming and presenting sustainable ways of using economic resources in Kenya.

Link to Other Subjects:

Social Studies as the learner learns about economic activities such as mining, fishing and trade.

Strand	Sub Strand	Specific Learning	Suggested Learning Experiences	Suggested Key
		Outcomes		Inquiry
				Question(s)
3.0 Materials	3.2 Metallic	By the end of the sub-	The learner is guided to:	Why are metallic
for Production	Materials	strand, the learner should be	• use print or digital media to search	materials important
		able to:	for information on metallic	in day-to-day life?
		a) identify types of	materials,	
	(10 lessons)	metallic materials used	• prepare a checklist for identifying	
		in a work environment,	types of metallic materials (<i>steel</i> ,	
		b) describe the physical	aluminum, copper)	
		properties of metallic	• perform practical activities to	
		materials found in a	examine the physical properties of	
		work environment,	metallic materials (magnetism,	
		c) relate metallic materials	conductivity of heat and electricity,	
		to their use in a work	appearance)	
		environment,	• discuss the physical properties of	
		d) appreciate the use of	metallic materials	
		metallic materials in	match metallic materials to their	
		production.	use in the work environment	

- Digital Literacy: the learner develops skills of interacting with technology when searching for information on metallic materials.
- Communication and Collaboration: the learner acquires speaking, listening, and teamwork skills when discussing the uses of metallic materials.

Values:

• Unity: learner displays team spirit and collaboration with others when 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 as the learner explores types of metals.

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?

• 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 as the learner explores non-metallic elements.

Assessment Rubric				
Level	Exceeding expectation	Meets expectation	Approaching expectation	Below expectation
Ability to classify economic resources in Kenya	Classifies economic resources into three classes citing types in each case	Classifies economic resources into three classes	Classifies economic resources into two classes	Classifies economic resources into at most one class
Ability to analyse sustainable ways of using economic resources in Kenya.	Analyses three sustainable ways of using economic resources in Kenya citing examples	Analyses three sustainable ways of using economic resources in Kenya	Analyses two sustainable ways of using economic resources in Kenya	Analyses at most one sustainable way of using economic resources in Kenya

Ability to identify	Identifies two types of	Identifies two types of	Identifies one type of	Identifies one type of
types of materials used	materials used in the	materials used in the	materials used in the	materials used in the
in the locality	locality giving	locality	locality	locality with assistance
	examples for each type			
Ability to describe the	Describes the physical	Describes the physical	Describes some of the	Describes some of the
physical properties of	properties of materials	properties of materials	physical properties of	physical properties of
materials found in the	found in the locality	found in the locality	materials found in the	materials found in the
locality	citing examples		locality	locality with prompt
Ability to relate	Relates all materials to	Relates most of the	Relates some of the	Relates a few materials
materials to their use in	their use in the locality	materials to their use in	materials to their use in	to their use in the
the locality		the locality	the locality	locality with assistance

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 in the work environment, 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 in the work environment, e) recognise the importance of measuring and marking out tools in the work environment. 	 The learner is guided to: use visual aids and realia to identify measuring (<i>Tape measure, steel rule, callipers, weighing balance, stop watch, ammeter, voltmeter</i>) and marking out tools (<i>divider, try-square, marking gauge, dot punch, scriber, pencil, marking knife</i>) in the work environment discuss the use of measuring and marking out tools in the work environment 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 to perform specific tasks demonstrate the use of measuring and marking out tools to perform specific tasks 	 Why are measuring and marking out tools important in a work environment? How are measuring and marking out tools used in a work environment?

 perform specific tasks using measuring and marking out tools care for and maintain measuring and marking out tools in the work
environment

- Critical Thinking and Problem Solving: the 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 work environment
- Responsibility: learner shows accountability by caring for and maintaining measuring and marking out tools in the work environment

Pertinent and Contemporary Issues (PCIs):

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

Link to Other Subjects:

- Mathematics as the learner carries out geometric construction
- Integrated Science as the learner identifies laboratory tools and equipment

Assessment Rubric				
Level	Exceeds expectation	Meets expectation	Approaches	Below expectation
Indicator			expectation	
Ability to explain the	Explains four benefits	Explains four benefits	Explains two to three	Explains at most one
benefits of production	of production to the	of production to the	benefits of production	benefit of production
to the community	community citing	community	to the community	to the community with
	examples			assistance
Ability to describe the	Describes four factors	Describes four factors	Describes two to three	Describes at most one
factors of production in	of production in the	of production in the	factors of production in	factor of production in
the community	community citing	community	the community	the community
	examples			
Ability to analyse	Analyses three ethical	Analyses three ethical	Analyses two ethical	Analyses at most one
ethical and unethical	and unethical practices	and unethical practices	and unethical practices	ethical and unethical
practices in production	in production of goods	in production of goods	in production of goods	practices in production
of goods and services	and services citing	and services	and services	of goods and services
	examples			
Ability to use	Uses measuring and	Uses measuring and	Uses some measuring	Uses measuring and
measuring and	marking out tools to	marking out tools to	and marking out tools	marking out tools to
marking out tools to	perform a given task	perform a given task	to perform a given task	perform a given task
perform a given task	with ease			with prompt

Strand	Sub Strand	Specific Learning Outcomes	Suggested Learning Experiences	Suggested Key Inquiry Question(s)
4.0 Tools and Production	4.2 Production of Goods and Services (8 lessons)	 By the end of the sub strand, the learner should be able to: a) explain the benefits of production to the community, b) distinguish between goods and services found in the local market, c) describe the factors of production in the community, d) analyse the ethical and unethical practices in production of goods and services, e) participate in production activities in the community. 	 The learner is guided to: brainstorm and present the meaning and benefits of production discuss and present the meaning, types and characteristics of goods and services read and analyse a case study on factors of production, characteristics and rewards use print or digital media to search for information on ethical and unethical practices in production of goods and services share experiences on ethical and unethical practices in production of goods and services 	Why are factors of production important?

- Learning to Learn: learner acquires skills of organizing own learning and works collaboratively with others when brainstorming and presenting on the meaning, types and characteristics of goods and services.
- Critical Thinking: learner develops interpretation and inference skills when analysing a case study on factors of production, characteristics and rewards.

Values:

- Respect: learner shows etiquette when discussing and presenting the meaning and importance of production
- Unity: learner cooperates with peers when sharing experiences on ethical and unethical practices in production of goods and services.

Pertinent and Contemporary Issues (PCIs):

Chaplaincy: learner exhibits moral values when sharing experiences on ethical and unethical practices in production of goods and services.

Link to Other Subjects:

Social Studies as the learner explores physical environment.

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 (8 lessons)	 By the end of the sub strand, the learner should be able to: a) explain the importance of entrepreneurship to an individual and community, b) describe the qualities of an entrepreneur in business, c) explore sources of business ideas for a business venture, d) analyse the factors considered when evaluating the viability of a business opportunity, e) evaluate the factors that enhance success in a business, 	 The learner is guided to: brainstorm and present the meaning of the terms 'entrepreneur' and 'entrepreneurship' discuss and present on the importance of entrepreneurship to an individual and community download and watch a video clip or use available resources to search for information on qualities of an entrepreneur conduct self-assessment on entrepreneurial qualities use available resources to search for search for and present the meaning and sources of business ideas compile a list of business 	 1. Why is entrepreneurshi p important in the community? 2. What are the qualities of an entrepreneur?

	f) practice entrepreneurship for self and community development.	 ideas and determine their viability as business opportunities read, analyse and present on a case study about the factors that enhance business success 	
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- Critical Thinking and Problem Solving: learner acquires evaluation and decision-making skills when reading, analysing and presenting on a case study about the factors that enhance business success
- Citizenship: learner acquires entrepreneurship skills by exploiting opportunities when compiling a list of business ideas and determining their viability.

Values:

- Peace: learner shows respect for self and others when brainstorming and presenting the meaning of 'entrepreneur' and 'entrepreneurship'.
- Unity: learner displays team spirit when discussing and presenting the importance of entrepreneurship to an individual and community.
- Responsibility: learner engages in assigned roles and duties when analysing and reporting on a case study on the factors that enhance business success.

Pertinent and Contemporary Issues (PCIs):

- Financial Literacy: learner develops entrepreneurial skills when conducting self-assessment on entrepreneurial qualities
- Career Guidance: learner develops ability to identify personal skill gaps when conducting self-assessment on entrepreneurial qualities.

Link to Other Subjects:

Social Studies as the learner explores about trading activities in the community.

Strand	Sub Strand	Specific Learning Outcomes	Suggested Learning Experiences	Suggested Key Inquiry Question(s)
5.0 Entrepreneurship	5.2 Money (10 lessons)	 By the end of the sub strand, the learner should be able to: a) identify the characteristics of money as a medium of exchange, b) explain the uses of money in day- to- day life, c) describe the key security features of the Kenyan currency, d) analyse the themes and symbols on the Kenyan currency, e) appreciate the use of money in day-to-day life. 	 The learner is guided to: brainstorm and present the meaning and characteristics of money share experiences on use of money for buying goods and services discuss and present on the uses of money use print or digital media to search for information on the uses of money use Kenyan currency to observe the key security features brainstorm and present the themes and symbols used on the Kenyan currency to examine themes and symbols 	 Why does the Kenyan currency have security features? What are the themes and symbols on the Kenyan currency?

Core competencies to be developed:

- Learning to Learn: learner acquires the skill of sharing learnt knowledge when brainstorming and presenting on the themes and symbols of the Kenyan currency.
- Citizenship: learner develops national and cultural identity skills when discussing, brainstorming and presenting on the themes and symbols of the Kenyan currency.

Values:

• Respect: learner shows regard for self and others when discussing and presenting the uses of money.

• Integrity: learner is accountable when using different denominations of Kenyan currency to examine themes and symbols. Pertinent and Contemporary Issues (PCIs):

• Financial Literacy: learner develops financial skills when discussing and presenting on the uses of money

• Safety and Security: learner develops the skill of distinguishing between genuine and fake currency by observing key security features.

Links to Other Subjects:

- Mathematics as the learner identifies the different denominations of the Kenyan currency.
- Social Studies as the learner examines the themes of the Kenyan currency.

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 discuss and present 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 	 Why is it important for an individual to set financial goals? What are the factors to consider when setting financial goals?

Core competencies to be developed:

• Self Efficacy: learner acquires develops 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: as the learner explores personal goals.

Assessment Rubric				
Level	Exceeds expectation	Meets expectation	Approaches	Below expectation
Indicator			expectation	
Ability to describe the	Describes more than	Describes four to five	Describes two to three	Describes at most one
qualities of an	five qualities of an	qualities of an	qualities of an	qualities of an
entrepreneur in	entrepreneur in	entrepreneur in	entrepreneur in	entrepreneur in
business	business	business	business	business
Ability to explore	Explores three sources	Explores three sources	Explores two sources	Explores at most one
sources of generating	of generating business	of generating business	of generating business	source of generating
business ideas for a	ideas for a business	ideas for a business	ideas for a business	business ideas for a
business venture	venture	venture	venture.	business venture.
Ability to analyse the	Analyses four factors	Analyses four factors	Analyses two to three	Analyses at most one
factors considered	considered when	considered when	factors considered	factor considered when
when evaluating the	evaluating the viability	evaluating the viability	when evaluating the	evaluating the viability
viability of a business	of a business		viability of a business	of a business

opportunity	opportunity citing	of a business	opportunity	opportunity
	examples	opportunity		
Ability to explain the	Explains four uses of	Explains four uses of	Explains two to three	Explains at most one
uses of money in day-	money in day- to- day	money in day- to-day	uses of money in day-	use of money in day-
to- day life	life citing examples	life	to- day life	to- day life
Ability to formulate	Formulates three	Formulates three	Formulates two	Formulates at most one
financial goals for	SMART financial	SMART financial	SMART financial	financial goal for
individual	goals for individual	goals for individual	goals for individual	individual
development	development	development	development	development
	categorising them into			
	short, medium and			
	long-term			

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

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 Work Environment	 Question and Answer Observation Written test Practical work 	• Workshop attires such as; overcoats, aprons, shoes, googles among others	• Learners visit workplaces in the locality to observe how workers practice

		• Peer and self- assessment	 Career brochures, career magazines Digital devices such as; computers, laptops, smart phones, tablets among others 	 safety as they perform tasks Debate in clubs and societies on safety in the work 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 (<i>Calculators</i> , <i>Smartphones</i> , <i>Tablets</i> , <i>DVD players</i> , <i>Digital</i> <i>watches</i>) during clubs and societies
2.0 Communication	2.1 Fundamentals of Communication	 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, smart 	 Financial literacy and other school clubs and societies Songs on business communication during music festivals Debates on business communications in

		 phones, tablets among others Relevant approved textbooks and reference materials Photographs and pictures Charts 	planned out of class school programmes
2.2 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 nearby workplaces 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
2.3 Plane Geometry	 Question and Answer Observation Written test Peer and self- assessment 	 Drawing charts Drawing papers/books brochures and magazines Geometrical set 	• Learners visit nearby workplaces to observe how different combined shapes and how they are used in the community

3.0 Materials for Production	3.1 Economic Resources	 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, smart phones, tablets among others Metallic and non- metallic materials Relevant approved textbooks and reference materials Photographs and pictures Charts 	 Discuss classification of economic resources in Financial literacy and other school clubs and societies Organised and planned field visits activities to carry our resource mapping
	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; computer, laptop, smart 	 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

	3.3 Non-Metallic Materials	 Question and Answer Observation Written test Peer and self- assessment Practical work 	 phone, tablets among others Non-Metallic materials (wood, plastics, ceramic, paper, rubber, glass, cement, stone) brochures and magazines Digital devices such as; computer, laptop, smart phone, tablets among others Digital devices such as; computer, laptop, smart phone, tablets among others 	 clubs and societies Learners visit local community and 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 	• Measuring tools (<i>Tape measure</i> , steel rule, callipers, weighing balance, stop watch,	• Learners visit local workplaces and observe the use of measuring and marking out tools in performing different

	Practical work	 <i>ammeter</i>, <i>voltmeter</i>) Marking out tools (<i>divider</i>, <i>try</i>- <i>square</i>, <i>marking</i> <i>gauge</i>, <i>dot punch</i>, <i>scriber</i>, <i>pencil</i>, <i>marking knife</i>) in the work environment brochures and magazines Digital devices such as; computer, laptop, smart phone, tablets among others 	 tasks Discuss the uses of measuring and marking out tools in clubs and societies
4.2 Production of Goods and Services	 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, smart 	 Discuss the factors of production in Financial literacy and other school clubs and societies Participate in a talk by a volunteer resource person on the ethical and unethical practices

			 phones, tablets among others Relevant approved textbooks and reference materials Photographs and pictures Charts 	in production
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, smart phones, 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 Money	 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, smart phones, tablets among others Relevant approved textbooks and reference materials Photographs and pictures Charts 	 Discuss on the security features of the Kenyan currency in Financial literacy and other school clubs and societies School drama festivals on themes and symbols on the Kenyan currency Participating in a talk by a volunteer resource person on themes, symbols and security features on the Kenyan currency Posters with messages on symbols and themes of Kenyan currency.
5.3 Financia	 I Goals Question and Answer Observation Written test Peer and self- assessment 	 Pre-Technical Studies curriculum design Pre-Technical Studies handbook 	• Discuss on factors to consider when setting financial goals in Financial literacy and other school clubs and societies

Practical work	 Digital devices such as; computers, laptops, smart phones, tablets among others Relevant approved textbooks and reference materials Photographs and pictures Charts Poigital devices Participating in a talk by a volunteer resource person setting financial goals Posters with messages on SMART financial goals
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