KENYA INSTITUTE OF CURRICULUM DEVELOPMENT

A Skilled and Ethical Society

JUNIOR SCHOOL CURRICULUM DESIGN

PRE-TECHNICAL STUDIES

GRADE 7

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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 1.0: FOUNDATIONS OF PRE -TECHNICAL STUDIES

Strand	Sub Strand	Specific Learning Outcomes	Suggested Learning Experiences	Suggested Key Inquiry Question(s)
1.0 Foundations of Pre -Technical Studies	**1.1 Introduction to Pre-Technical Studies** **(4 lessons)**	By the end of the sub strand, the learner should be able to: a) identify the components of Pre-Technical Studies as a learning area, b) explain the role of Pre-Technical Studies in day-to-day life, c) embrace Pre-Technical Studies in career development.	The learner is guided to: • brainstorm on the components of Pre-Technical Studies as a learning area • discuss and present the role of Pre-Technical Studies in day-to-day life • debate on the role of Pre-Technical Studies in day-to-day life.	Why is Pre-Technical Studies important in day-to-day life?
Core competencies to be developed: • Communication and Collaboration: learner develops writing, speaking, listening and teamwork skills when discussing, and presenting on the role of Pre-Technical Studies. • Critical Thinking and Problem Solving: learner develops open-mindedness and creativity skills when brainstorming on Pre-Technical Studies as a learning area.				
Values: • Unity: learner displays team spirit and collaboration with others when discussing and presenting the role of Pre-Technical Studies in day-to-day life. • Respect: learner displays tolerance for others' opinions when debating on the role of Pre-Technical Studies in day-to-day life.				

Pertinent and Contemporary Issues (PCIs): Social cohesion is enhanced when debating on the role of Pre-Technical Studies.
Link to Other Subjects: The learner is able to relate career to trade and economic activities in Social Studies.

Strand	Sub Strand	Specific Learning Outcomes	Suggested Learning Experiences	Suggested Key Inquiry Question(s)
1.0 Foundations of Pre-Technical Studies	1.2 **Safety in the Work Environment** (6 lessons)	By the end of the sub 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 observing safety in a work environment.	The learner is guided to: • brainstorm with peers on potential safety threats in a work environment (*physical and online)* • 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 *(theft, natural 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	1. Why is safety in the work environment important? 2. How can online threats be safeguarded against?

			• discuss safety rules and regulations in a work environment • role play on safety for self and others in a work environment.	

Core Competencies to be developed:

- Learning to Learn: learner develops skills of sharing learnt knowledge when taking turns with peers to share ideas on safety for self and others in the 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)**	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 in a user environment, c) use a computer to perform tasks in a user environment, d) acknowledge the importance of different types of computers in a user environment.	The learner is guided to: ● brainstorm on the meaning of the terms; computer, data and information ● discuss on 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 computers in the user environment to perform tasks	Why are there different classes of computers?

Core competencies to be developed:

- 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	1. Why is communication in the work environment important? 2. How is ICT used in communication?

Core competencies to be developed: • 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 on the types of lines and their application in drawing *(thick and thin continuous, dashed and chain*) • draw various types of lines (*thick and thin continuous, dashed and chain*)	Why is drawing referred to as a universal way of communication?

			• sketch basic symbols (⌀, ₵, 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	

Core competencies to be developed:

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

Values:

- Respect: 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 (*linear, radial, angular, arc*), • 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 (*parallel, chain, combined*), • draw and dimension combined shapes in plane geometry.	How are combined shapes applied in day-to-day life?

Core competencies to be developed:

- 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 / **Indicator**	**Exceeds expectation**	**Meets expectation**	**Approaches expectation**	**Below expectation**
Ability to use ICT tools to enhance communication	Uses more than five ICT tools to enhance communication	Uses five ICT tools to enhance communication	Uses between three and four ICT tools to enhance communication	Uses less than three ICT tools to enhance communication
Ability to construct regular combined shapes applied in day-to-day life	Constructs regular combined shapes applied in day-to-day life creatively	Constructs regular combined shapes applied in day-to-day life	Constructs regular combined shapes leaving out a few details	Constructs regular combined shapes leaving out many details
Ability to dimension regular combined shapes in a given dimension style	Dimensions regular combined shapes in a given dimension style with high accuracy	Dimensions regular combined shapes in a given dimension style	Dimensions regular combined shapes in a given dimension style with few errors	Dimensions regular combined shapes in a given dimension style with 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 non-metallic 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 in the local community • use available resources to establish distribution of economic resources in Kenya • brainstorm and present sustainable ways of using economic resources in Kenya.	1. What are economic resources? 2. How can economic resources be used sustainably?

Core competencies to be developed:

- 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 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 a work environment, b) describe the physical properties of metallic materials found in a work environment, c) relate metallic materials to their use in a work 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 use in the work environment	Why are metallic materials important in day-to-day life?
Core competencies to be developed: • 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?
Core competencies to be developed: • Critical Thinking and Problem Solving: learner develops evaluation and decision skills when sorting non-metallic materials as either synthetic or natural. • Creativity and Imagination: learner develops observation skills when performing practical activities to examine the physical properties of non-metallic materials.				

Values: • Peace: learner displays respect for self and peers when discussing non-metallic materials. • Unity: learner displays team spirit and collaboration with others when performing practical activities to examine the physical properties of non-metallic materials.
Pertinent and Contemporary Issues (PCI's): Personal Safety and Security: learner observes safety precautions when performing practical activities to examine the physical properties of non-metallic materials.
Link to Other Subjects: Integrated Science as the learner explores non-metallic elements.

Assessment Rubric				
Level / **Indicator**	**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 types of materials used in the locality	Identifies two types of materials used in the locality giving examples for each type	Identifies two types of materials used in the locality	Identifies one type of materials used in the locality	Identifies one type of materials used in the locality with assistance
Ability to describe the physical properties of materials found in the locality	Describes the physical properties of materials found in the locality citing examples	Describes the physical properties of materials found in the locality	Describes some of the physical properties of materials found in the locality	Describes some of the physical properties of materials found in the locality with prompt
Ability to relate materials to their use in the locality	Relates all materials to their use in the locality	Relates most of the materials to their use in the locality	Relates some of the materials to their use in the locality	Relates a few materials to their use in the 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 (*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*) 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	1. Why are measuring and marking out tools important in a work environment? 2. 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	

Core competencies to be developed:

- 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 / Indicator	**Exceeds expectation**	**Meets expectation**	**Approaches expectation**	**Below expectation**
Ability to explain the benefits of production to the community	Explains four benefits of production to the community citing examples	Explains four benefits of production to the community	Explains two to three benefits of production to the community	Explains at most one benefit of production to the community with assistance
Ability to describe the factors of production in the community	Describes four factors of production in the community citing examples	Describes four factors of production in the community	Describes two to three factors of production in the community	Describes at most one factor of production in the community
Ability to analyse ethical and unethical practices in production of goods and services	Analyses three ethical and unethical practices in production of goods and services citing examples	Analyses three ethical and unethical practices in production of goods and services	Analyses two ethical and unethical practices in production of goods and services	Analyses at most one ethical and unethical practices in production of goods and services
Ability to use measuring and marking out tools to perform a given task	Uses measuring and marking out tools to perform a given task with ease	Uses measuring and marking out tools to perform a given task	Uses some measuring and marking out tools to perform a given task	Uses measuring and marking out tools to perform a given task 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?
Core competencies to be developed: • 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 and present the meaning and sources of business ideas • compile a list of business	1. Why is entrepreneurship 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	

Core Competencies to be developed:

- 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 • use different denominations of Kenyan currency to examine themes and symbols	1. Why does the Kenyan currency have security features? 2. 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	1. Why is it important for an individual to set financial goals? 2. 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 **Indicator**	**Exceeds expectation**	**Meets expectation**	**Approaches expectation**	**Below expectation**
Ability to describe the qualities of an entrepreneur in business	Describes more than five qualities of an entrepreneur in business	Describes four to five qualities of an entrepreneur in business	Describes two to three qualities of an entrepreneur in business	Describes at most one qualities of an entrepreneur in business
Ability to explore sources of generating business ideas for a business venture	Explores three sources of generating business ideas for a business venture	Explores three sources of generating business ideas for a business venture	Explores two sources of generating business ideas for a business venture.	Explores at most one source of generating business ideas for a business venture.
Ability to analyse the factors considered when evaluating the viability of a business	Analyses four factors considered when evaluating the viability of a business	Analyses four factors considered when evaluating the viability	Analyses two to three factors considered when evaluating the viability of a business	Analyses at most one factor considered when evaluating the viability of a business

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

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 (*Calculators, Smartphones, Tablets, DVD players, Digital watches)* 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

			phone, tablets among others	clubs and societies
	3.3 Non-Metallic Materials	• Question and Answer • Observation • Written test • Peer and self-assessment • Practical work	• Non-Metallic materials (*wood, plastics, ceramic, paper, rubber, glass, cement, stone*) • brochures and magazines • Digital devices such as; computer, laptop, smart phone, tablets among others Digital devices such as; computer, laptop, smart phone, tablets among others	• 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 (*Tape measure, 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	*ammeter, voltmeter*) • Marking out tools (*divider, try-square, marking gauge, dot punch, scriber, pencil, marking knife*) 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 **Financial 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	• Participating in a talk by a volunteer resource person setting financial goals Posters with messages on SMART financial goals