KENYA INSTITUTE OF CURRICULUM DEVELOPMENT
A Skilled and Ethical Society

JUNIOR SCHOOL CURRICULUM DESIGN

PRE-TECHNICAL STUDIES

GRADE 9

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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.

This subject aims at equipping learners with foundational knowledge, skills, attitudes, and values essential for the Science, Technology, Engineering, and Mathematics (STEM) and Social Science pathways at Senior School. At Senior School, students will select subjects such as Metal Technology, Wood Technology, Electrical Technology, Aviation Technology, Building Technology, Power Mechanics Technology, Leatherwork, Hairdressing & Beauty Therapy, Marine & Fisheries, Business Studies and Computer Science among others.

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 Safety on Raised Platforms
	1.2 Self-Exploration and Career Development
	1.3 Computer Software
	2.1 Oblique Projection
	2.2 Visual Programming
3.0 Materials for Production	3.1 Wood
	3.2 Hazardous Materials
4.0. Tools and Production	4.1 Holding Tools
	4.2 Driving Tools
	4.3 Distribution of Goods and Services
	4.4 Project
5.0 Entrepreneurship	5.1 Financial Services
	5.2 Government and Business
	5.3 Business Plan

STRAND 1.0: FOUNDATIONS OF PRE-TECHNICAL STUDIES

Strand	Sub Strand	Specific Learning Outcomes	Suggested Learning Experiences	Suggested Key Inquiry Question(s)
1.0 Foundations of Pre – Technical Studies	**1.1 Safety on Raised Platforms** (8 lessons)	By the end of the sub strand, the learner should be able to: a) identify types of raised platforms used in a workplace, b) describe risks associated with working on raised platforms, c) observe safety when working on raised platforms, d) appreciate the need for observing safety while working on raised platforms.	The learner is guided to: • walk around the school to explore types of raised platforms (*ladders, trestles, steps, stands, work benches, ramps),* • brainstorm on the types of raised platforms used in day-to-day life, • use print or digital media to search for information on risks associated with working on raised platforms, • discuss ways of minimising risks related to working on raised platforms in workplace, • role play safety practices for working on raised platforms, • visit workplaces around the school to note safety precautions	What is the importance for observing safety when working on raised platforms?

			taken when working on raised platforms.	

Core Competencies to be developed:
- Communication and Collaboration: learner develops speaking, listening and teamwork skills when discussing and presenting on ways of minimising risks and dangers related to working on raised platforms in workplaces.
- Critical Thinking and Problem Solving: learner decides and makes inference as they role play safety practices for working on raised platforms.
- Digital Literacy: learner interacts with and manipulates digital devices as they use audio visual aids to observe risks associated with working on raised platforms.

Values:
- Unity**:** learner develops positive relationships as they interact to share learning aids and discuss during learning activities.
- Love: learner cares for others to avoid injury as they role-play safety practices for working on raised platforms.
- Responsibility: learner cares for the audio visual aids when using them to identify types of raised platforms in the workplace.

Pertinent and Contemporary Issues (PCIs):
Disaster Risk Reduction: learner ability to identify and mitigate risks is enhanced when working on raised platforms.

Link to other subjects:
The learners is able to relate skills on safety in a workplace to laboratory safety rules in Integrated Science.

Strand	Sub Strand	Specific Learning Outcomes	Suggested Learning Experiences	Suggested Key Inquiry Question(s)
1.0 Foundations of Pre-Technical Studies	**1.2 Self-Exploration and Career Development** (6 lessons)	By the end of the sub strand, the learner should be able to: a) explain ways of nurturing talents and abilities for business purposes, b) relate talents and abilities to career pathways in senior school, c) analyse ethical and unethical practices related to the use of talents and abilities, d) choose a career based on talents and abilities for self-development.	The learner is guided to: • discuss and present on ways of nurturing talents and abilities, • display talents and abilities through clubs and societies and other planned school fora, • make a list of talents and abilities and the corresponding career pathways in the senior school, • engage with a resource person on career opportunities related to talents and abilities in Pre-Technical Studies, • read and discuss a case study on ethical and unethical practices related to the use of talents and abilities.	1. How are talents and abilities nurtured? 2. Why is self-exploration necessary for career development?

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

ethical and unethical practices related to the use of talents and abilities.
- Learning to Learn: learner develops self-learning skill when reading and analysing a case study on ethical and unethical practices related to the use of talents and abilities.
- Self-Efficacy: learner acquires effective communication skills when organising and participating in talent shows to nurture talents and abilities.

Values:
- Integrity: learner develops accountability when analysing a case study on ethical and unethical practices related to the use of talents and abilities.
- Respect: learner shows humility by displaying positive regard for self and others when discussing and presenting on ways of nurturing talents and abilities.
- Responsibility: learner shows determination by engaging in assigned roles and duties when organising and participating in talent shows to nurture talents and abilities.

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

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

Strand	Sub Strand	Specific Learning Outcomes	Suggested Learning Experiences	Suggested Key Inquiry Question(s)
1.0 Foundations of Pre-Technical Studies	**1.3 Computer Software** (12 lessons)	By the end of the sub strand, the learner should be able to: a) identify the categories of computer software used in a workplace, b) explain the functions of different application software in the workplace, c) use computer software to perform tasks in day-to-day life, d) acknowledge the importance of application software in the workplace.	The learner is guided to: • brainstorm on the meaning of the term 'computer software' and present to peers • use available resources to search for different computer software, • discuss categories of computer software (*system software, application software*), • brainstorm on the functions of different application software *(word processing, presentation, spreadsheets, databases, desktop publishing, information management systems, customized software)*, • perform tasks using different application software *(word processing, presentation, spreadsheet and desktop publishing)*.	1. How are computer software used in day-to-day life? 2. Why is computer software important?

Core Competencies to be developed:
• Digital Literacy: learner develops creating with technology skills when performing tasks using different application software.
• Learning to Learn: learner develops relationships by sharing what they have learnt with peers when discussing categories of computer software.

Values:
• Integrity: learner exhibits fairness by giving equal opportunities to peers when brainstorming functions of application software.

Pertinent and Contemporary Issues (PCIs):
• Peer Education and Mentorship: learner develops interpersonal relationships as they brainstorm on the functions of different application software.

Link to other subjects
• English: the learner uses application software to write narrative paragraphs.

Assessment Rubric

Level / Indicator	Exceeds expectations	Meets expectations	Approaches expectations	Below expectations
Ability to observe safety when working on raised platforms(safety rules, inspection of platform, PPE, storage after use)	Consistently observes safety when working on raised platforms: safety rules, inspection of platform, PPE, storage after use.	Often observes safety when working on raised platforms: safety rules, inspection of platform, PPE, storage after use.	Occasionally observes safety when working on raised platforms: safety rules, inspection of platform, PPE, storage after use.	Rarely observes safety when working on raised platforms: safety rules, inspection of platform, PPE, storage after use.
Ability to use computer software to perform tasks in the workplace(*word processing, presentation, spreadsheet, databases and desktop publishing*)	Uses more than four computer software to perform tasks in the workplace	Uses four computer software to perform tasks in the workplace	Uses three computer software to perform tasks in the workplace	Uses less than three computer software to perform tasks in the workplace

STRAND 2.0: COMMUNICATION

Strand	Sub Strand	Specific Learning Outcomes	Suggested Learning Experiences	Suggested Key Inquiry Question(s)
2.0 Communication	**2.1 Oblique Projection** (12 lessons)	By the end of the sub strand, the learner should be able to: a) explain the characteristics of oblique drawing in technical fields, b) sketch given drawings in oblique projection, c) draw shaped blocks in oblique projection, d) appreciate the application of oblique projection in technical communication.	The learner is guided to: • use print or digital media to search for information on characteristic of oblique drawings, • brainstorm on the characteristic of oblique drawings, • draw given drawings in oblique projection without using instruments (*ensure neatness, correct line work, maintain proportionality, correct labelling and maintain accuracy*) • discuss the steps for drawing shaped blocks in oblique projection, • use drawing instruments to draw shaped blocks in oblique projection (*ensure neatness, correct line work, maintain proportionality, correct labelling and maintain accuracy and correct dimensioning*).	How are oblique drawings used in technical fields?

Core Competencies to be developed:
- Communication and Collaboration: learner develops speaking, listening and self-expression skills when brainstorming on the characteristic of oblique drawings.   - Critical Thinking and Problem Solving: learner develops interpretation and inference skills when drawing three-dimensional diagrams.
Values:
- Responsibility: learner cares for the print or digital media as well as drawing instruments when learning how to draw three dimensional objects in oblique projection.   - Unity: learner cooperates with others when using digital devices to search for information on and discussing characteristic of oblique drawings.
Pertinent and contemporary issues (PCIs):
Social cohesion: learner develops ability to relate well with others as they brainstorm on the characteristic of oblique drawings.
Link to other subjects:
- Visual art as learners make free-hand pictures of three-dimensional objects.   - Mathematics as the learner makes oblique drawings to specified dimensions in technical drawing

Strand	Sub Strand	Specific Learning Outcomes	Suggested Learning Experiences	Suggested Key Inquiry Question(s)
2.0 Communication	**2.2 Visual Programming** (14 lessons)	By the end of the sub strand, the learner should be able to: a) explain the application areas of visual programming software in solving problems, b) create an application using visual programming software for solving problems in day-to-day life, c) embrace the use of visual programming in the day-to-day life.	The learner is guided to: ● use available resources to search for information on the application areas of visual programming *(mobile programming and web development),* ● discuss the application areas of visual programming software, ● search and play a video on how to develop an application using visual programming software (games and stories), ● develop interactive stories, games and animations	How are applications developed using visual programming software?

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

Value:
Social justice: learner shares resources equitably with others as they work in groups to develop applications.
Pertinent and Contemporary Issues (PCIs):
● Peer Education and Mentorship: interpersonal relationships is enhanced as learner discusses the application areas of visual programming software.
● Internet Safety and Security: responsible online behaviour is enhanced as learner uses available resources to search for information on the application areas of visual programming.
Link to other subjects
Mathematics as learner uses visual programming concepts to solve problems

Assessment Rubric				
Level Indicator	**Exceeds expectations**	**Meets expectations**	**Approaches expectations**	**Below expectations**
Ability to sketch three-dimensional diagrams in oblique drawing (*neatness, line work, proportionality, labelling and accuracy*)	Sketches three-dimensional diagrams in oblique drawing considering more than four elements of sketching	Sketches three-dimensional diagrams in oblique drawing considering four elements of sketching	Sketch three-dimensional diagrams in oblique drawing considering three elements of sketching	Sketches three-dimensional diagrams in oblique drawing considering less than three elements of sketching
Ability to draw three-dimensional block diagrams in oblique drawing(*neatness,*	Draws three-dimensional block diagrams in oblique drawing	Draws three-dimensional block diagrams in oblique	draws three-dimensional block diagrams in oblique drawing considering four elements of drawing	With assistance, draws three-dimensional block diagrams in oblique

line work, proportionality accuracy, labelling and dimensioning)	considering more than five elements of drawing	drawing considering five elements of drawing		drawing considering less than four elements of drawing
Ability to create an application using visual programming software for solving problems in day-to-day life	creates an application using visual programming software for solving problems in day-to-day life and assists peers	creates an application using visual programming software for solving problems in day-to-day life	creates an application using visual programming software for solving problems in day-to-day life with minimal assistance	creates an application using visual programming software for solving problems in day-to-day life with a lot of assistance

STRAND 3.0: MATERIALS FOR PRODUCTION

Strand	Sub Strand	Specific Learning Outcomes	Suggested Learning Experiences	Suggested Key Inquiry Question(s)
3.0 Materials for Production	**3.1 Wood** (8 lessons)	By the end of the sub strand, the learner should be able to: a) classify wood according to physical characteristics, b) describe the preparation of wood for use in a workplace, c) relate types of wood to their uses in a workplace, d) value the importance of wood in the day-to-day life.	The learner is guided to: • use print or digital media to search for information on the types of wood used at the workplace, • use a checklist to sort wood as either softwood or hardwood, • discuss methods of wood preparation for use in a workplace *(conversion and seasoning)*, • visit a workplace to explore on the uses of wood. • develop charts to match types of wood to their uses, • brainstorm on the uses of wood in different trades.	Why is wood an important material in day-to–day life?
Core Competencies to be developed: • Digital Literacy: learner develops digital skills when interacting and manipulating digital devices to search for information on types of wood.				

• Learning to learn: learner organises own learning when searching for information on the types of wood used at the workplace.
Values: • Unity: learner cooperates with others when sharing print or digital media to search for information on types of wood.   • Respect: learner accepts diverse opinions when discussing methods of wood preparation.
Pertinent and Contemporary Issues (PCI's):   • Environmental education and climate change: learner understands the growth process of trees when using print or digital media to search for information on the types of wood used at the workplace.   • Peer education and mentorship: Teamwork is enhanced when the learner participates the discussion on methods of wood preparation for use in the workplace.
Links to other learning areas: • Social Studies: learner enhances knowledge of resource exploitation as they brainstorm on the uses of wood in different trades.

Strand	Sub Strand	Specific Learning Outcomes	Suggested Learning Experiences	Suggested Key Inquiry Question(s)
3.0 Materials for Production	**3.2 Hazardous Materials** (8 lessons)	By the end of the sub strand, the learner should be able to: a) identify hazardous materials in the workplace, b) classify hazardous materials in the workplace, c) demonstrate safe practices when handling hazardous materials in the workplace, d) acknowledge the importance of safe handling of hazardous materials in the workplace.	The learner is guided to: • use print or digital media to search for information on hazardous materials in the workplace, • brainstorm on hazardous materials found in the workplace, • use charts to group hazardous materials in the workplace (*poisonous, flammable, corrosive, e-waste*), • interpret safety instructions contained in labels and manuals on handling of hazardous materials, • discuss safe ways of handling hazardous materials (*to self, others, environment and promote safety awareness*) • exercise safe ways of handling hazardous materials in the workplace (*read instructions, use PPE, handle the material, store/dispose safely*) • visit a local workplace to observe safe handling of hazardous waste materials.	Why is it important to safely handle hazardous materials?

Core Competencies to be developed:
• Digital Literacy: learner acquires digital skills when using digital devices to search for information on hazardous materials.   • Communication and Collaboration: learner develops speaking, listening and self-expression skills when brainstorming on hazardous materials found in the workplace.   • Learning to Learn: learner develops the skill of sharing learnt knowledge when discussing safe ways of handling hazardous materials.
Values:
• Respect: learner appreciates diverse opinions as they brainstorm on hazardous materials found in the workplace.
Pertinent and Contemporary Issues(PCIs):
• Disaster Risk Reduction: learner's ability to identify hazards is enhanced when brainstorming on hazardous materials found in the workplace.   • Environmental Education and Climate Change: ability to keep surrounding clean and neat while exercising safe ways of handling hazardous materials in the workplace.
Link to other subjects
• Integrated Science: learner enhances lab safety as they exercise safe ways of handling hazardous materials in the workplace .

Assessment Rubric

Level / Indicator	Exceeds expectations	Meets expectations	Approaches expectations	Below expectations
Ability to demonstrate safe practices when handling hazardous materials in the workplace	Demonstrate safe practices when handling hazardous materials in the workplace; to self, others ,environment and promote safety awareness	Demonstrate safe practices when handling hazardous materials in the workplace; self, others and environment	Demonstrate safe practices when handling hazardous materials in the workplace; to self and others	Demonstrate safe practices when handling hazardous materials in the workplace to self

STRAND 4.0: TOOLS AND PRODUCTION

Strand	Sub Strand	Specific Learning Outcomes	Suggested Learning Experiences	Suggested Key Inquiry Question(s)
4.0 Tools and Production	**4.1 Holding Tools** (7 lessons)	By the end of the sub strand, the learner should be able to: a) identify holding tools used in a workplace, b) select holding tools for a given task in a workplace, c) use holding tools to perform a given task in a workplace, d) care for holding tools in the workplace, e) appreciate the importance of holding tools in the workplace.	The learner is guided to: • use visual aids or real objects to identify holding tools in a workplace (*pliers, clamps, tongs, clips, spanner, vice*), • choose holding tools for different tasks • discuss the use of holding tools in the workplace • use audio visual aids or print media to get information on safe use of holding tools in the workplace • demonstrate safe use of holding tools for different tasks • practise using holding tools for given tasks • maintain and store holding tools in the workplace	How are holding tools used in a workplace?
Core Competencies to be developed:				
• Communication and Collaboration: learner develops listening and speaking skills when discussing the use of holding tools. • Learning to Learn: learner reflects on own work when demonstrating safe use of holding tools to perform given tasks. • Digital Literacy: learner develops digital skills when interacting and manipulating audio visual aids on safe use of holding tools.				

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

Pertinent and Contemporary Issues (PCIs):
• Personal Safety and Security: learner demonstrates basic safety habits as they safely use holding tools to perform tasks.
• Disaster Risk Reduction: learner appreciates the need to maintain and store holding tools in the workplace for safe use and retrieval.

Link to other subjects:
• Agriculture and Nutrition**:** learners enhances the knowledge on use of farm tools during demonstration on how to use and care for holding tools.

Strand	Sub Strand	Specific Learning Outcomes	Suggested Learning Experiences	Suggested Key Inquiry Question(s)
4.0 Tools and Production	**4.2 Driving Tools** (8 lessons)	By the end of the sub strand, the learner should be able to: a) identify driving tools used in a workplace, b) select driving tools for a given task in a workplace, c) use driving tools to perform a given task in a workplace, d) care for driving tools in a workplace, e) value the need for driving tools in a workplace.	The learner is guided to: • use visual aids or *realia* to identify driving tools in a workplace (*hammer, screwdriver, spanner, punches, mallets*), • choose driving tools for different tasks, • discuss the use of driving tools in a workplace, • use audio visual devices to search and watch a video clip on the safe use of driving tools in a workplace, • demonstrate safe use of driving tools to perform tasks, • practise using driving tools to perform given tasks, • maintain and store driving tools in a workplace .	How are driving tools used in a workplace?
Core Competencies to be developed:
• Self-Efficacy: learner acquires effective communication skills in task execution when demonstrating safe use of driving tools to perform given tasks. • Digital Literacy: learner develops interacting skills when manipulating audio visual devices on safe use of driving tools.

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

Pertinent and Contemporary Issues (PCIs):
• Personal Safety and Security: learner demonstrates basic safety habits as they safely use driving tools to perform tasks.
• Disaster Risk Reduction**:** learner appreciates the need to maintain and store driving tools in the workplace for safe use.

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

Strand	Sub Strand	Specific Learning Outcomes	Suggested Learning Experiences	Suggested Key Inquiry Question(s)
4.0 Tools and Production	**4.5 Distribution of Goods and Services** (7 lessons)	By the end of the sub strand, the learner should be able to: a) explain the role of intermediaries in the distribution of goods and services, b) illustrate the channels for distributing different goods and services in business, c) analyse ethical and unethical practices in distribution of goods and services, d) participate in distribution of goods and services in the community.	The learner is guided to: • discuss and present the meaning of channels of distribution and role of intermediaries in distribution of goods and services, • search from available resources the role of intermediaries in distribution of goods and services to the consumer, • search and watch video clips on channels for distributing different goods and services, • prepare a chart on channels for distribution of different goods and services, • analyse case studies on different distribution channels for goods and services, • debate on ethical issues on distribution of goods and services.	1. How is the distribution of goods and services carried out in day-to-day life? 2. Which ethical issues influence distribution of goods and services?

Core Competencies to be developed:
- Learning to Learn: learner acquires skills of organising self-learning when analysing case studies on different distribution channels for goods and services.
- Digital Literacy: learner acquires the skills of interacting with digital devices when watching and listening to video clips on channels for distributing goods and services.
- Critical Thinking and Problem Solving: learner acquires interpretation and inference skills when debating on ethical issues in distribution of goods and services.
- Self-Efficacy: learner develops effective communication skills when debating on ethical issues in distribution of products.

Values:
- Respect: learner shows regard for self and others when discussing the meaning of channels of distribution and role of intermediaries in the distribution of goods and services.
- Responsibility: learner engages in assigned roles and duties when debating on ethical issues on distribution of goods and services.
- Peace: learner displays tolerance and respect for others when debating on ethical issues on distribution of goods and services.

Pertinent and Contemporary Issues:
- Social Cohesion: learner improves on their interpersonal relationships when debating on ethical issues on distribution of goods and services.
- Mental Health: emotional awareness is enhanced as learner participates in discussion and presentation on the meaning of channels of distribution and role of intermediaries in distribution of goods and services.

Links to other subjects:
- Social Studies: learner enhances knowledge on trade when learning about distribution of goods and services.

Strand	Sub strand	Specific learning outcomes	Suggested learning experiences	Suggested Key Inquiry Question(s)
4.0 Tools and production	**4.6 Project** (14 lessons)	By the end of the sub strand the learner should be able to: a) identify a problem in the locality that can be solved using the skills acquired in Pre-Technical Studies, b) select an item that can be made to solve the identified problem, c) make an item to solve the problem identified using locally available materials, d) utilise skills learnt in solving problems in the day-to-day life.	The learner is guided to: • explore the locality to establish problems that can be solved using the skills acquired in this learning area, • brainstorm on the problems in the locality that can solved using the skills acquired, • use a print or digital media to search for information on possible items to solve the identified problem, • discuss possible items that can be made to solve the identified problem, • select one item that can be made using the skills acquired to solve the identified problem, • sketch the item that can be made using the skills acquired to solve the identified problem, • use locally available materials and tools to make the identified item, • estimate the cost to determine the price for the item, • display the finished item to peer assessment	How are competencies acquired in Pre-Technical Studies used to solve day-to-day problems?

Core Competencies to be developed:
- Critical Thinking and Problem Solving: learner develops evaluation and decision making skills when selecting an item that can be made using the skills acquired.
- Creativity and imagination: learner develops experimenting skills when selecting locally available materials and tools to make the identified item.
- Self-Efficacy: learner acquires effective communication skills when describing the procedure followed in doing the defined task and gives feedback during display of the finished item for evaluation.

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

Pertinent and Contemporary Issues (PCIs):
- Environmental Education: learner protects natural resources as they use locally available materials and tools to make the identified item.
- Financial Literacy: is enhanced as learner estimates the cost to determine the price for the item.
- Time Management: learner demonstrates ability to manage time when carrying out the project within a given duration.

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

Assessment Rubric				
Level Indicator	Exceeds expectations	Meets expectations	Approaches expectations	Below expectations
Ability to make an item to solve the identified problem (*identify problems, select a problem that can be solved, come up with a solution to the problem, implement the solution, test and present for evaluation*)	Makes an item to solve the identified problem following all the five steps with a quality finish	Makes an item to solve the identified problem following all the five steps	Makes an item to solve the identified problem following four steps	Makes an item to solve the identified problem following less than four steps

STRAND 5.0: ENTREPRENEURSHIP

Strand	Sub Strand	Specific Learning Outcomes	Suggested Learning Experiences	Suggested Key Inquiry Question(s)
5.0 Entrepreneurship	**5.1 Financial Services** (4 lessons)	By the end of the sub-strand, the learner should be able to: a) identify financial institutions available in Kenya, b) classify financial institutions in Kenya, c) analyse services offered by financial institutions in Kenya, d) utilise financial services for entrepreneurial development.	The learner is guided to: • use print or digital media to search for information on financial institutions available in Kenya • discuss and present the types of financial institutions in Kenya (*banks, insurance, SACCOs, micro finance),* • use ICT and other available resources to search for information on services offered by financial institutions in Kenya, • use a case study on financial institutions to identify the financial services.	What are the services offered by different financial institutions in Kenya?
Core Competencies to be developed: • Learning to Learn: learner acquires skills of organising self-learning when searching for information on services offered by financial institutions in Kenya. • Self-Efficacy: learner develops effective communication skills when discussing and presenting the types of financial institutions in Kenya. • Critical Thinking and Problem-Solving: learner develops interpretation and inference skills when identifying financial				

services.

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

Pertinent and Contemporary Issues (PCIs):
• Financial Literacy: learner's financial literacy skills are enhanced when learning about services offered by financial institutions.

Link to other subjects:
Agriculture and Nutrition as the learner learns about financial services offered to farmers

Strand	Sub Strand	Specific Learning Outcomes	Suggested Learning Experiences	Suggested Key Inquiry Question(s)
5.0 Entrepreneurship	**5.2 Government and Business** (6 lessons)	By the end of the sub strand, the learner should be able to: a) explain the reasons for government involvement in business in Kenya, b) describe ways of government involvement in business, c) explore types of taxes in Kenya, d) analyse e-Government services in business, e) acknowledge the need to comply with Government regulation in business.	The learner is guided to: • brainstorm and present on the reasons for government involvement in business in Kenya, • use available resources to search for information on ways of Government involvement in business, • discuss and present on the meaning and importance of paying taxes in Kenya, • discuss on the types of taxes in Kenya (*income tax, VAT, corporate tax, excise duty)* and present to peers • discuss a case study on e-Government services in business. • use ICT tools to access and interact with e- Government platform in Kenya.	Why is it important for the Government to get involved in business?

Core Competencies to be developed:
• Critical Thinking and Problem Solving; learner develops evaluating and decision making skills when discussing a case study on e- Government services in business.
• Digital Literacy: learner develops the skills of interacting with digital devices when using ICT tools to access and interact with the e- Government platform in Kenya.
• Citizenship: learner develops social and civic skills when discussing and presenting on the meaning and importance of paying taxes in Kenya.
Values:
• Integrity: learner acquires accountability skills when discussing and presenting on the meaning and importance of paying taxes in Kenya,
• Social justice: learner learns about the need for government involvement in business to promote fairness and equity across the society.
• Patriotism: learner becomes aware of own responsibility towards payment of taxes when discussing and presenting on the meaning and importance of paying taxes in Kenya.
Pertinent and Contemporary Issues (PCIs):
• Financial Literacy: learner's financial literacy skills are enhanced when discussing and presenting on types of taxes paid in Kenya.
• Social Cohesion: learner's interpersonal relationships are enhanced when brainstorming and presenting on the reasons for government involvement in business in Kenya.
Link to other subjects: Social Studies as they learn about governance.

Strand	Sub Strand	Specific Learning Outcomes	Suggested Learning Experiences	Suggested Key Inquiry Question(s)
5.0 Entrepreneurship	5.3 Business Plan (6 lessons)	By the end of the sub strand, the learner should be able to: a) explain the importance of a business plan in entrepreneurship, b) describe the components of a business plan in financial management, c) fill in a business plan template for a given business project, d) embrace the use of a business plan in entrepreneurship.	The learner is guided to: • brainstorm and present the meaning and importance of business plan, • use available resources to search for information on the meaning and importance of business plan, • discuss and present the components of a business plan, • read case studies to get information on the components of a business plan, • complete a business plan template (*executive summary business description, product and service, market/competitor analysis, financial projection and marketing plan*).	1. Why is a business plan important to an entrepreneur? 2. How is a business plan prepared?

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

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

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

Link to other subjects:
• Agriculture and Nutrition as they learn about marketing crop produce

Assessment Rubric				
Level ⟍ Indicator	Exceeds expectations	Meets expectations	Approaches expectations	Below expectations
Ability to prepare a business plan by filling in a template (*executive summary business description, product and service, market/competitor analysis, financial projection and marketing plan*)	Fills in six components of a business template giving specific details.	Fills in six components of a business template.	Fills in three to five components of a business template.	Fills in at most two components of a business template.

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

Introduction

In Grade 9, learners will undertake an integrated Community Service Learning (CSL) project of choice from a single or combined subject. The CSL project will enable the learner to apply knowledge and skills from other subjects to address a problem in the community. The implementation of the integrated CSL project will take a Whole School Approach, where all members of the school community including teachers, school administration, parents/guardians/ local community and support staff. It will be a collaborative effort where the teacher of Social Studies coordinates and works with other subject teachers to design and implement the integrated CSL project. The teachers will select a theme drawn from different Learning Areas and the broader categories of Pertinent and Contemporary Issues (PCIs) for the CSL project. It should also provide an opportunity for development of core competencies and nurturing of values. Learners will undertake a **variety of** integrated CSL group projects in teams of following a 6-step milestone approach as follows:

Milestone	Description
Milestone 1	**Problem Identification** Learners study their community to understand the challenges faced and their effects on community members. Some of the challenges in the community can be: ● Environmental degradation ● Lifestyle diseases, Communicable and non-communicable diseases ● Poverty ● Violence and conflicts in the community ● Food security issues

Milestone 2	**Designing a solution** Learners create an intervention to address the challenge identified.
Milestone 3	**Planning for the Project** Learners share roles, create a list of activities to be undertaken, mobilise resources needed to create their intervention and set timelines for execution
Milestone 4	**Implementation** The learners execute the project and keep evidence of work done.
Milestone 5	**Showcasing /Exhibition and Report Writing** Exhibitions involve showcasing learners' project items to the community and reflecting on the feedback Learners write a report detailing their project activities and learnings from feedback
Milestone 6	**Reflection** Learners review all project work to learn from the challenges faced. They link project work with academic concepts, noting how the concepts enabled them to do their project as well as how the project helped to deepen learning of the academic concepts.

NOTE: The milestones will be staggered across the 3 terms of the academic calendar.

Assessment of CSL integrated Project

Assessment for the integrated CSL group projects will be conducted formatively. The assessment will consider both the process and end product. This entails assessing each of the milestone stages of the integrated CSL group projects. They will focus on 3 components namely: skills from various learning areas applied in carrying out the projects, core competencies developed and values nurtured.

APPENDIX 2: SUGGESTED ASSESSMENT METHODS, SUGGESTED LEARNING RESOURCES AND NON-FORMAL ACTIVITIES

Strands	Sub Strands	Suggested Assessment Methods	Suggested Learning Resources	Suggested Non-Formal Activities
1.0 Foundations of Pre-Technical studies	1.1 Safety on Raised Platforms	• Oral tests • Observation • Checklist • Written test • Rubrics • Practical work	• Raised platforms • Video clips and visual aids • Personal protective equipment(PPEs)	Learners take a walk around the school and identify types of raised platform
	1.4 Self-Exploration and Career Development	• Assignments • Self and peer assessment • Oral questions • Observation	• Digital resources • Volunteer resource person • Relevant textbooks and reference materials • Photographs and pictures • Charts	• Clubs and societies • School mentoring and coaching programmes • Field visit activities • School drama festivals with themes on talents and abilities • Discussion by a resource person on careers • Parental empowerment and engagement guidelines

	1.5 Computer Software	- Rating scales - rubrics - questionnaires - projects - portfolios - oral questions aural questions - interview written tests - anecdotal records - observation schedules	- Reference materials - digital devices - manilla papers - Internet - video clips, audio clips, models, - computer software (Application programs),	Create awareness to community members on how to select appropriate type of application software for their computers
2.0 Communication	2.1 Oblique Projection	- Oral tests - Observation - Checklist - Written test - Rubrics - Project - Practical work - Portfolio	- Drawing papers - Pencils - Digital devices such as; computer, laptop, smart phone, tablets among others - Samples of free hand sketches - Three - dimensional realia	Learners take a walk around the school to observe and record the use of oblique drawings in the technical fields.

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

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

	4.2 Driving Tools	- Oral tests - Observation - Checklist - Written test - Rubrics - Project - Practical work	- Hammers, Screw driver, spanner, punches mallets among others - Career brochures, career magazines - Digital devices such as; computer, laptop, smart phone, tablets among others	Learners visit work environments around your locality and observe the various uses, care and storage of driving tools
	4.7 Distribution of Goods and Services	- Assignments - Self and peer assessment - Oral questions - Portfolio Assessment - Observation - Rubrics - Tests	- Digital resources - Resource person - Relevant textbooks and reference materials - Photographs and pictures - Charts	- Clubs and societies - Field visit activities - Discussion by a resource person on distribution of goods and services - Debates on distribution of goods and services - Parental empowerment and engagement guidelines - Road shows on distribution of goods and services

	4.8 Project	• Portfolio • Observation • interview	• Digital resources • Resource person • Relevant textbooks and reference materials • Computer software	• Field visits to the local community • Parental empowerment and engagement guidelines
5.0 Entrepreneurship	5.1 Financial Services	• Assignments • Self and peer assessment • Oral questions • Observation	• Digital resources • Resource person • Relevant textbooks and reference materials	• Learners Visit financial institutions to familiarise with financial services • Club and societies • School drama festivals with themes on financial services • Discussion by a resource person on financial services • Posters with messages on financial services • Debates on financial services • Parental empowerment and engagement guidelines

	5.2 Government and Business	- Assignments - Self and peer assessment - Oral questions - Observation	- Digital resources - Resource person - Relevant textbooks and reference materials - Photographs and pictures - Charts	- Clubs and societies - School mentoring and coaching programmes - Field visit to Huduma centres - Discussion by a resource person on government and business - Posters with messages on government and business - Parental empowerment and engagement guidelines
	5.3 Business Plan	- Assignments - Self and peer assessment - Oral questions - Portfolio Assessment - Observation - Journaling	- Digital resources - Resource person - Relevant textbooks and reference materials - Photographs and pictures - Charts	- Clubs and societies - Field visit activities - Discussion by a resource person on business plan - Posters with messages on business plan - Parental empowerment and engagement guidelines