KENYA INSTITUTE OF CURRICULUM DEVELOPMENT
A Skilled and Ethical Society

JUNIOR SCHOOL CURRICULUM DESIGN

PRE-TECHNICAL STUDIES

GRADE 8

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FOREWORD

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

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

The reviewed Grade 8 curriculum designs build on competencies attained by learners at the end of Grade 7. Further, they provide opportunities for learners to continue exploring and nurturing their potentials as they prepare to transit to Senior Secondary School.
The curriculum designs present National Goals of Education, essence statements, general and specific expected learning outcomes for the subjects as well as strands and sub strands. The designs also outline suggested learning experiences, key inquiry questions, core competencies, Pertinent and Contemporary Issues (PCIs), values and assessment rubric.

It is my hope that all Government agencies and other stakeholders in Education will use the designs to plan for effective and efficient implementation of the CBC.

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PREFACE

The Ministry of Education (MoE) nationally implemented Competency Based Curriculum (CBC) in 2019. Grade 8 is the second grade of Junior School in the reformed education structure.

The reviewed Grade 8 curriculum furthers implementation of the CBC from Grade 7 in Junior School. The main feature of this level is a broad curriculum for the learner to explore talents, interests and abilities before selection of pathways and tracks at the Senior Secondary education level. This is very critical in the realisation of the Vision and Mission of the on-going curriculum reforms as enshrined in the Sessional Paper No. I of 2019 whose title is: *Towards Realizing Quality, Relevant and Inclusive Education and Training for Sustainable Development* in Kenya. The Sessional Paper explains the shift from a Content - Focused Curriculum to a focus on **Nurturing every Learner's potential.**

Therefore, the Grade 8 curriculum designs are intended to enhance the learners' development in the CBC core competencies, namely: Communication and Collaboration, Critical Thinking and Problem Solving, Creativity and Imagination, Citizenship, Digital Literacy, Learning to Learn and Self-efficacy.

The curriculum designs provide suggestions for interactive and differentiated learning experiences linked to the various sub strands and the other aspects of the CBC. They also offer several suggested learning resources and a variety of assessment techniques. It is expected that the designs will guide teachers to effectively facilitate learners to attain the expected learning outcomes for Grade 8 and prepare them for smooth transition to 9. Furthermore, it is my hope that teachers will use the designs to make learning interesting, exciting and enjoyable.

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ACKNOWLEDGEMENT

The Kenya Institute of Curriculum Development (KICD) Act Number 4 of 2013 (Revised 2019) mandates the Institute to develop and review (*SNE adapt*) curricula and curriculum support materials for basic and tertiary education and training. The curriculum development process for any level of education involves thorough research, international benchmarking and robust stakeholder engagement. Through a systematic and consultative process, the KICD conceptualised the Competency Based Curriculum (CBC) as captured in the Basic Education Curriculum Framework (BECF)2017, that responds to the demands of the 21st Century and the aspirations captured in the Constitution of Kenya 2010, the Kenya Vision 2030, East African Community Protocol, International Bureau of Education Guidelines and the United Nations Sustainable Development Goals (SDGs).

KICD receives its funding from the Government of Kenya to facilitate successful achievement of the stipulated mandate and implementation of the Government and Sector (Ministry of Education (MoE) plans. The Institute also receives support from development partners targeting specific programmes. The revised Grade 8 curriculum designs were developed with the support of the World Bank through the Kenya Primary Education Equity in Learning Programme (KPEELP); a project coordinated by MoE. Therefore, the Institute is very grateful for the support of the Government of Kenya, through the MoE and the development partners for policy, resource and logistical support. Specifically, special thanks to the Cabinet Secretary-MoE and the Principal Secretary-State Department of Basic Education,

We also wish to acknowledge the KICD curriculum developers and other staff, all teachers, educators who took part as panelists; the Semi-Autonomous Government Agencies (SAGAs) and representatives of various stakeholders for their roles in the development of the Grade 8 curriculum designs. In relation to this, we acknowledge the support of the Chief Executive Officers of the Teachers Service Commission (TSC) and the Kenya National Examinations Council (KNEC) for their support in the process of developing these designs. Finally, we are very grateful to the KICD Council Chairperson and other members of the Council for very consistent guidance in the process.

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

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

LEARNING OUTCOMES FOR JUNIOR SCHOOL

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

1. Apply literacy, numeracy and logical thinking skills for appropriate self-expression.
2. Communicate effectively, verbally and non-verbally, in diverse contexts.
3. Demonstrate social skills, spiritual and moral values for peaceful co-existence.
4. Explore, manipulate, manage and conserve the environment effectively for learning and sustainable development.
5. Practise relevant hygiene, sanitation and nutrition skills to promote health.
6. Demonstrate ethical behaviour and exhibit good citizenship as a civic responsibility.
7. Appreciate the country's rich and diverse cultural heritage for harmonious co-existence.
8. Manage pertinent and contemporary issues in society effectively.
9. Apply digital literacy skills for communication and learning.

ESSENCE STATEMENT

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

This learning area is anchored on National Goals of Education No. 2 to provide the learners with the necessary skills and attitudes for industrial development, Kenya Vision 2030 on making education responsive to education needs, Sessional Paper No 1 of 2019, which recommended the promotion of technical and vocational education with an emphasis on Science, Technology, and Innovation (ST&I) in the school curriculum. It is also informed by the National ICT Policy of Kenya 2016 (revised 2020), which emphasises on use of ICT as a foundation for the creation of a more robust economy.

SUBJECT GENERAL LEARNING OUTCOMES

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

1. Communicate effectively through the use of information and communication technology.
2. Select and use tools and materials in the production of goods and services.
3. Use financial and entrepreneurial competencies for prudent decision making.
4. Observe safety in the immediate environment to promote education for sustainable development.
5. Apply ICT skills to carry out activities in day-to-day life.
6. Create awareness on career choices in regard to career pathways and progression for self-development.

SUMMARY OF STRANDS AND SUB STRANDS

Strands	Sub Strands	Suggested Number of Lessons
1.0 Foundations of Pre-Technical studies	1.1 Fire Safety	7
	1.2 Data Safety	11
2.0 Communication	2.1 Plane Geometry	4
	2.2 Dimensioning	7
	2.3 Plain scale drawing	6
	2.4 Visual programming	14
3.0 Materials for production	3.1 Composite Materials	7
	3.2 Ceramics	7
4.0 Tools and Production	4.1 Cutting Tools	15
	4.2 Computer Software	6
5.0 Entrepreneurship	5.1 Bookkeeping	12
	5.2 Income and Budgeting	9
	5.3 Marketing goods and Services	8
	5.4 Distribution of Goods and Services	7
Total Number of Lessons		**120**

Note: The suggested number of lessons per sub strand may be less or more depending on the context.

STRAND 1.0: FOUNDATIONS OF PRE-TECHNICAL STUDIES

Strand	Sub Strand	Specific Learning Outcomes	Suggested Learning Experiences	Suggested Key Inquiry Question(s)
1.0 Foundations of Pre-Technical Studies	**1.1 Fire Safety** (6 lessons)	By the end of the sub strand, the learner should be able to: a) identify possible causes of fire outbreaks in the environment, b) explain ways of preventing fire outbreaks in the environment, c) extinguish fires in the environment using appropriate methods, d) acknowledge the need for fire safety in day-to-day life.	The learner is guided to: ● brainstorm on the meaning and importance of fire, ● discuss the possible causes of fire outbreaks in the environment (*flammable substances, electrical faults, combustible materials*), ● share experiences on ways of preventing fire outbreaks in the environment, ● discuss firefighting techniques in the work environment, *(cooling, smothering, starving, interrupting),* ● role play firefighting techniques for extinguishing fire.	Why is fire safety important?
Core competencies to be developed: ● Critical Thinking and Problem Solving: learner acquires active listening and communication skills when following simple instructions to complete tasks while role playing firefighting techniques in the work environment.				

● Creativity and Imagination: learner acquires networking skills by undertaking group activities and exchanging new ideas that inspire creative thinking skills during the role play on firefighting techniques for extinguishing fire.
Values: ● Responsibility: learner engages in assigned roles and duties when role playing firefighting techniques. ● Respect**:** learner appreciates diverse opinions when brainstorming on the possible causes of fire outbreaks in the environment.
Pertinent and Contemporary Issues (PCIs): Safety: learner enhances safety awareness when sharing experiences on ways of preventing fire outbreaks in the environment.
Link to other subjects: Integrated Science: learner relates fire safety to fire control measures 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 Data Safety** (4 lessons)	By the end of the sub strand, the learner should be able to: a) outline the importance of data in an electronic device, b) identify threats to data in an electronic device, c) describe ways of protecting data in an electronic device, d) secure data in an electronic device, e) acknowledge the need for data safety in day-to-day life.	The learner is guided to: ● brainstorm on the meaning of data and information in an electronic device, ● use available resources to search for the importance of data in electronic devices, ● discuss threats to data in electronic devices (*virus and unauthorised access),* ● discuss techniques of securing data in an electronic device (*use passwords; and scan electronic devices using antivirus*), ● use appropriate techniques to secure data in an electronic device against possible threats.	How is data protected in an electronic device?

Core competencies to be developed:
● Critical Thinking and Problem Solving: learner acquires active listening and communication skills when discussing threats to data in electronic devices
● Digital Literacy: learner acquires skills of interacting with technology when using digital devices to secure electronic data in a user environment

Values:
- Responsibility: learner engages in assigned roles and duties when securing electronic data in the workplace against possible threats.
- Respect**:** learner appreciates diverse opinions when brainstorming on the threats of electronic data in the work environment.

Pertinent and Contemporary Issues (PCIs):
Cyber Security: learner enhances online safety when practising how to secure electronic data in the user environment.

Link to other subjects:
Mathematics: learner relates data safety to data handling in mathematics.

Level Indicator	Exceeds expectations	Meets expectations	Approaches expectations	Below expectations
Ability to extinguish fires in the environment using appropriate methods	Extinguishes fires in the environment using four appropriate methods	Extinguishes fires in the environment using three appropriate methods	Extinguishes fires in the environment using two appropriate methods	Extinguishes fires in the environment using only one appropriate method
Ability to describe ways of protecting data in an electronic device	Comprehensively describes ways of protecting data in an electronic device	Describes ways of protecting data in an electronic device	Describes some of the ways of protecting data in an electronic device	Describes a few ways of protecting data in an electronic device

STRAND 2.0: COMMUNICATION IN PRE-TECHNICAL STUDIES

Strand	Sub Strand	Specific Learning Outcomes	Suggested Learning Experiences	Suggested Key Inquiry Question(s)
2.0 Communication in Pre-Technical Studies	**2.1 Plane Geometry** (8 Lessons)	By the end of the sub strand, the learner should be able to: a) identify instruments used in drawing, b) explain the layout of a drawing environment, c) construct combined shapes applied in drawing, d) embrace the use of plane geometry in drawing.	The learner is guided to: • discuss the instruments used in drawing (set *squares, drawing set, straight edges and pencils*), • use print and digital resources to search for information on setup of drawing paper (*drawing surface, margins, title page*), • discuss how to draw combined shapes, • use available resources to construct combined shapes.	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 using available resources to construct combined shapes.

Values:
- 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
Mathematics: learner relates drawing skills to geometrical construction in Mathematics.

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Strand	Sub Strand	Specific Learning Outcomes	Suggested Learning Experiences	Suggested Key Inquiry Question(s)
2.0 Communication in Pre-Technical Studies	**2.2 Dimensioning** *(10 lessons)*	By the end of this sub strand, the learner should be able to: a) identify the types of dimensioning in drawing, b) draw lines used for dimensioning in drawing, c) dimension given shapes in drawings, d) embrace the importance of dimensioning in drawing.	In groups, the learner is guided to: • discuss the term dimensioning as used in drawing, • use visual aids to categorize the types of dimensioning in drawing (*linear, radial, angular, arc),* • draw types of lines used in dimensioning, • discuss the forms of dimensioning as used in drawing (*parallel, chain and combined*), • use appropriate techniques to dimension given shapes in drawings, • develop a portfolio of the various dimensioned drawings.	Why is dimensioning applied in drawings?

Core competencies to be developed:
● Communication and collaboration: learner acquires team working skills when discussing how to dimension drawings.
● Learning to learn: learner develops organising skills when dimensioning shapes.

Values:
• Responsibility: learner engages in assigned roles and duties when dimensioning shapes.
• Respect: learner appreciates diverse opinions when discussing how to draw dimension lines.

Pertinent and Contemporary Issues (PCIs):
Social cohesion: learners work together harmoniously when discussing how to dimension drawings.

Link to other subjects
Mathematics: learner relates dimensioning skills to measurement in Mathematics.

Strand	Sub Strand	Specific Learning Outcomes	Suggested Learning Experiences	Suggested Key Inquiry Question(s)
2.0 Communication in Pre-Technical Studies	**2.3 Plain Scale Drawing** (6 lessons)	By the end of the sub strand, the learner should be able to: a) describe the features of a plain scale used in drawing, b) interpret a plain scale used in drawing, c) draw plane figures to a given scale, d) appreciate the use of plain scale drawing in the work environment.	The learner is guided to: • use print or digital media to search for information on plain scales, • discuss the features of a plain scale, • use drawing instruments to construct a plain scale, • discuss how to read plain scales, • use visual aids to identify drawings drawn to different scales, • practice drawing plane figures to a given plain scale.	1. What is the importance of drawing figures to scale? 2. How are plane figures drawn to scale?

Core competencies to be developed:
• Learning to Learn: learner acquires the skill to reflect on own work when practicing drawing of plane figures to a given plain scale.
• Self-Efficacy: learner acquires intrinsic self-motivation when drawing plane figures to scale.

Values:
• Unity: learner enhances cooperation with peers when discussing how to read plain scales.
• Responsibility: learner demonstrates self-drive when practicing drawing plane figures to a given plain scale.

Pertinent and contemporary issues (PCIs):
Peer education and mentorship: learner develops inter personal relationship and group dynamics skills while discussing how to read plain scales.

Link to Other Subjects:
Mathematics: learner relates skills of scale drawing to linear scale in Mathematics.

Strand	Sub Strand	Specific Learning Outcomes	Suggested Learning Experiences	Suggested Key Inquiry Question(s)
2.0 Communication in Pre-Technical Studies	**2.4 Visual Programming** (13 lessons)	By the end of the sub strand the learner should be able to: a) identify types of visual programming applications used in day-to-day life, b) explore the features of visual programming applications in a user environment, c) create instructions to solve problems using visual programming application, d) value the importance of visual programming in day-to-day life.	The learner is guided to: ● brainstorm on the meaning of the terms 'visual programming' and 'visual programming application, ● use available resources to search for information on types of visual programming applications *(Educational, Multimedia, Video games),* ● brainstorm on examples of visual programming applications *(Microsoft MakeCode, Scratch, Sprite box),* ● launch and discuss the different features of visual programming applications *(input, processing, output, effects such as sound, animations and background),* ● use available resources to search for information on terminologies used in visual programming *(syntax, variables, input output statements, coding, coding blocks,*	How are computer programs used in day-to-day life?

			sequence statement repeating statement, selection statement, variable declarations) and discuss with peers, ● use visual programming software to create sequential instructions.	

Core competencies to be developed:
- Communication and Collaboration: learner develops speaking, listening and team working skills when discussing the features of a visual programming application
- Critical Thinking and Problem Solving: learner develops open mindedness and creativity skills when applying effects such as sound, animations, background in a program

Value:
Responsibility: learner engages in assigned roles and duties when using visual programming software to create instructions in the work environment.

Pertinent and Contemporary Issues (PCIs):
Peer Education: learner enhances healthy inter and intra personal relationships with others when searching for information on terminologies used in visual programming and discussing with peers.

Link to other subjects
Creative Arts: learner relates visual programming skills to drawing of animations in creative arts.

Level / Indicator	Exceeds expectations	Meets expectations	Approaches expectations	Below expectations
Suggested Assessment Rubric				
Ability to identify instruments used in drawing	Identifies four instruments used in drawing	Identifies three instruments used in drawing	Identifies two instruments used in drawing	Identifies one instrument used in drawing
Ability to draw lines used for dimensioning in drawing	Draws lines used for dimensioning in drawing with exceptional clarity	Draws lines used for dimensioning in drawing	Draws lines used for dimensioning in drawing with few unclear details	Draws lines used for dimensioning in drawing with many unclear details
Ability to describe the features of a plain scale used in drawing	Describes the features of a plain scale used in drawing with illustrations	Describes the features of a plain scale used in drawing	Describes some features of a plain scale used in drawing	Describes a few features of a plain scale used in drawing
Ability to create instructions to solve problems using visual programming application	Proficiently creates instructions to solve problems using visual programming application	Creates instructions to solve problems using visual programming application	Creates some instructions to solve problems using visual programming application	Creates a few instructions to solve problems using visual programming application

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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 Composite Materials** (6 lessons)	By the end of the sub strand, the learner should be able to: a) identify composite materials in the locality, b) describe the composition of composite materials in the locality, c) relate composite materials to their use in a work environment, d) acknowledge the importance of composite materials used in the locality.	The learner is guided to: ● discuss the meaning of composite materials, ● use visual aids and realia to identify materials made of composites (*concrete, bricks, manufactured boards, stone, paper-mâché and plastic-coated paper*) and share with the peers, ● use print or digital media to search for information on the composition of composite materials and share with peers, ● discuss the constituent materials of composites, ● visit the locality to explore the uses of composite materials, ● match composite materials to their uses in the work environment.	1. How can composite materials be identified? 2. Why are composite materials used in day-to-day life?
Core competencies to be developed:				

Core competencies to be developed:
- Communication and Collaboration: learner acquires speaking, listening and team working skills when discussing the constituent materials of composites.

• Digital Literacy**:** learner acquires interacting with technology skills when using digital devices to search for information on the composition of composite materials.
Values: Peace: learner portrays respect for diversity when visiting locality to explore the uses of composite materials
Pertinent and Contemporary Issues (PCIs):   Online Safety: learner avoids harmful or illegal content when using digital media to search for information on the composition of composite materials.
Link to other subjects: Integrated Science: learner relates the concepts of composite materials to properties of materials in Integrated Science.

Strand	Sub Strand	Specific Learning Outcomes	Suggested Learning Experiences	Suggested Key Inquiry Question(s)
3.0 Materials for Production	**3.2 Ceramic Materials** (6 lessons)	By the end of the sub strand, the learner should be able to: a) identify common ceramic materials in the locality, b) describe the physical properties of ceramic materials in the locality, c) relate ceramic materials to their use in a work environment, d) acknowledge the importance of ceramic materials used in the locality.	The learner is guided to: ● discuss the meaning of ceramic materials, ● use visual aids and realia to identify items made of ceramic materials *(pottery, ceramic utensils, glass, shells)*, ● collect items made of ceramic materials in the locality, ● investigate the physical properties of ceramic materials *(brittleness, fire resistance, heat resistance, water resistance, corrosion resistance)*, ● visit the locality to explore the uses of ceramic materials, ● use a chart to match ceramic materials to their uses in the work environment.	How are ceramic materials used in day-to-day life?

Core competencies to be developed:
● Critical Thinking and Problem Solving: learner acquires evaluation and decision making skills when collecting items made of ceramic materials in the locality.
● Citizenship: learner demonstrates social cultural sensitivity and awareness when visiting the locality to explore the uses of ceramic materials.

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Values:
- Responsibility: learner engages in assigned roles and duties when collecting items made of ceramic materials in the locality.
- Unity: learner collaborates with others when using a chart to match ceramic materials with their use in the work environment.

Pertinent and Contemporary Issues (PCIs):
Safety: learner observes safety precautions when investigating the physical properties of ceramic materials.

Link to other subjects:
Creative Arts: learner enhances skills of pottery when identifying items made of ceramic materials.

Suggested Assessment Rubric				
Level Indicator	Exceeds expectations	Meets expectations	Approaches expectations	Below expectations
Ability to describe the composition of composite materials in the locality	Describes the composition of composite materials in the locality with illustrations	Describes the composition of composite materials in the locality	Describes the composition of most of the composite materials in the locality	Describes the composition of only a few of the composite materials in the locality
Ability to describe physical properties of ceramic materials in the locality	Describes five physical properties of ceramic materials in the locality	Describes four physical properties of ceramic materials in the locality	Describes two or three physical properties of ceramic materials in the locality	Describes one of the physical property of ceramic materials in the locality
Ability to relate ceramic materials to their use in a work environment	Relates ceramic materials to their use in a work environment citing examples	Relates ceramic materials to their use in a work environment	Relates some ceramic materials to their use in a work environment	Relates ceramic materials to their uses in a work environment with guidance

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 Cutting Tools** (15 lessons)	By the end of the sub strand, the learner should be able to: a) identify cutting tools used in the work environment, b) select cutting tools for given tasks in a workplace, c) use cutting tools to perform a given task, d) care for cutting tools in the work environment, e) recognise the importance of cutting tools in the work environment.	The learner is guided to: ● use available resources to identify cutting tools in the work environment (*snips, chisels, handsaws, planes, hacksaws, scrappers, knives, strippers, cutters*), ● discuss the use of cutting tools in the work environment, ● use audio visual aids to observe the use of cutting tools in the work environment, ● demonstrate safe use of cutting tools to perform specific tasks, ● carry out given tasks using cutting tools, ● maintain and store cutting tools in the work environment.	Why are cutting tools cared for?

Core competencies to be developed:
● Learning to Learn: learner acquires the skill of working collaboratively with others when discussing the use of cutting tools in the work environment.
● Critical Thinking and Problem Solving: learner acquires evaluation and decision-making skills when demonstrating safe use of cutting tools in performing specific tasks.

Values:
● Responsibility: learner observes safety precautions when using cutting tools available to perform given tasks.

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● Unity: learner respects other people's opinions when discussing the use of cutting tools in the work environment.
Pertinent and Contemporary Issues (PCIs):
Safety: learner observes safety when demonstrating safe use of cutting tools to perform specific tasks.
Link to other subjects:
Agriculture : learner relates the use of cutting tools to farm and kitchen tools.

Strand	Sub Strand	Specific Learning Outcomes	Suggested Learning Experiences	Suggested Key Inquiry Question(s)
4.0 Tools and Production	**4.2 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 information about different computer software, • discuss categories of computer software (*system software, application software*), • brainstorm on the functions of different application software *(word processing, presentation, spreadsheets)*, • perform tasks using different application software *(word processing, presentation, spreadsheet)*.	1. How is 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 while they brainstorm on the functions of different application software.
Link to other subjects English: the learner uses application software to edit documents.

Suggested Assessment Rubric				
Level ⟍ Indicator	Exceeds expectations	Meets expectations	Approaches expectations	Below expectations
Ability to identify cutting tools used in the work environment	Identifies more than five cutting tools used in the work environment	Identifies five cutting tools used in the work environment	Identifies four or three cutting tools used in the work environment	Identifies less than 3 cutting tools used in the work environment
Ability to explain the functions of different application software in the workplace	Explains the functions of different application software in the workplace with illustrations	Explains the functions of different application software in the workplace	Explains some of the functions of different application software in the workplace	Explains a few of the functions of different application software in the workplace
Ability to use computer software to perform tasks in day-to-day life	Proficiently uses computer software to perform tasks in day-to-day life	Uses computer software to perform tasks in day-to-day life	Uses computer software to perform some of the tasks in day-to-day life	Uses computer software to perform a few of the tasks in day-to-day life

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STRAND 5.0: ENTREPRENEURSHIP

Strand	Sub Strand	Specific Learning Outcomes	Suggested Learning Experiences	Suggested Key Inquiry Question(s)
5.0 Entrepreneurship	**5.1 Bookkeeping** (12 lessons)	By the end of the sub strand, the learner should be able to: a) explain the importance of bookkeeping in entrepreneurship, b) classify business transactions in bookkeeping, c) prepare simple financial statements for a business, d) appreciate the importance of financial records in day-to-day life.	The learner is guided to: ● brainstorm and present the meaning of basic terms used in bookkeeping, ● discuss the importance of bookkeeping for a business, ● calculate assets, liabilities and capital using the bookkeeping equation, ● read and analyse a case study on cash and credit transactions, ● determine the cost and price of a given product to calculate profit and loss, ● discuss the components of a statement of financial position, cash flow and income statement, ● draw and present simple statements of financial position, cash flow and income statement for a business.	1. Why is bookkeeping important to a business? 2. How are the statements of financial position, cash flow and income statement prepared?

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Core competencies to be developed:
- Critical Thinking and Problem-Solving: learner acquires evaluation and decision-making skills when calculating assets, liabilities and capital using the bookkeeping equation.
- Self-Efficacy: learner develops effective communication skills when discussing, presenting and preparing statements of financial position, cash flow and income.

Values:
- Peace: learner works harmoniously with members of the team when brainstorming and presenting the meaning of basic terms used in bookkeeping.
- Responsibility: learner performs tasks assigned when calculating assets, liabilities and capital using the bookkeeping equation.
- Respect: learner shows regard for the input of every member of the team when discussing the components of a statement of financial position, cash flow and income statement.

Pertinent and Contemporary Issues (PCIs):
Financial Literacy: learner enhances bookkeeping skills when drawing and presenting simple statements of financial position, cash flow and income statement for a business.

Link to other subjects:
Mathematics: learner enhances skills of mathematical operations when calculating values for assets, liabilities and capital.

Strand	Sub Strand	Specific Learning Outcomes	Suggested Learning Experiences	Suggested Key Inquiry Question(s)
5.0 Entrepreneurship	**5.2 Income and Budgeting** (9 lessons)	By the end of the sub strand, the learner should be able to: a) identify sources of income for an individual, b) explain the importance of budgeting in day-to-day life, c) prepare a simple budget for personal financial management, d) explore ethical and unethical practices in budgeting, e) appreciate the importance of financial planning in income management.	The learner is guided to: ● share experiences on the meaning and sources of income for an individual, ● brainstorm and present on the importance of budgeting, ● discuss and present on ways of spending money wisely, ● prepare a simple personal budget, ● brainstorm on and present the ethical and unethical practices on income and budgeting.	1. Why is it important to prepare a personal budget? 2. What are the ethical issues in income and budgeting?

Core Competencies to be developed:
● Communication and Collaboration: learner acquires writing, speaking, listening and team working skills when sharing experiences, brainstorming, and presenting on the sources of income and importance of budgeting.
● Critical Thinking and Problem Solving: learner acquires evaluation skills when preparing a simple personal budget.

Values:
● Integrity: learner develops ethical practices when budgeting and spending money.
● Responsibility: learner performs tasks assigned when brainstorming and presenting on the importance of budgeting.

● Respect: learner appreciates diverse opinions of others when sharing experiences on the meaning and sources of income for an individual.
Pertinent and Contemporary Issues (PCIs)
Financial Literacy: learner enhances financial skills when preparing a personal budget and wise spending of money.
Link to other subjects:
Mathematics: learner enhances mathematical operation skills when preparing a simple personal budget.

Strand	Sub Strand	Specific Learning Outcomes	Suggested Learning Experiences	Suggested Key Inquiry Question(s)
5.0 Entrepreneurship	**5.3 Marketing of Goods and Services** (6 lessons)	By the end of the sub strand, the learner should be able to: a) explain the importance of marketing to a business, b) analyse the sources of information about the market for its potential customers, c) explore factors considered when selecting a suitable market for goods and services, d) select tools to market goods and services, e) recognise suitable markets for goods and services.	The learner is guided to: ● discuss and present the meaning and importance of marketing, ● interact with available resources on sources of information about the market and its potential customers, ● discuss factors considered when selecting a suitable market for goods and services, ● use print or digital media to search and present information on ICT applications used in marketing of goods and services.	1. How is the market of goods and services selected? 2. Where can information about the market and its potential customers be sourced from?

Core Competencies to be developed:
● Communication and Collaboration: learner acquires writing, speaking, listening and team working skills when discussing and presenting on the meaning and importance of marketing.
● Digital Literacy: learner acquires skills of interacting with digital technology when searching and presenting information

on ICT applications used in marketing of goods and services.
Values: ● Respect: learner shows regard for self and others when discussing and presenting on the meaning and importance of marketing. ● Responsibility: learner shows accountability when searching and presenting information on ICT applications used in marketing of goods and services.
Pertinent and Contemporary Issues (PCIs) Safety: learner observes online safety when using print or digital media to search for information on ICT applications used in marketing of goods and services
Link to other subjects: Social Studies: learner enhances knowledge of trade when discussing marketing of goods and services.

Strand	Sub Strand	Specific Learning Outcomes	Suggested Learning Experiences	Suggested Key Inquiry Question(s)
5.0 Entrepreneurship	**5.4 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 ethics in distribution of goods and services, d) value the need for 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, • read and discuss stories on different distribution channels for 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?

			• debate on ethical and unethical practices on distribution of goods and services.	

Core Competencies to be developed:
- 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.

Values:
- Respect: learner develops regard for self and others when discussing the meaning of channels of distribution and role of intermediaries in the 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.

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

Suggested Assessment Rubric				
Level Indicator	Exceeds expectations	Meets expectations	Approaches expectations	Below expectations
Ability to classify business transactions in bookkeeping	Classifies two business transactions in bookkeeping citing examples	Classifies two business transactions in bookkeeping	Classifies one business transactions in bookkeeping	Classifies one business transactions in bookkeeping with prompt
Ability to prepare simple financial statements for a business	Prepares a detailed financial statements for a business	Prepares a simple financial statements for a business	Prepares a simple financial statements for a business leaving out few details	Prepares a simple financial statement for a business leaving out many details
Ability to explain the importance of budgeting in day-to-day life	Explains the importance of budgeting in day-to-day life in detail	Explains the importance of budgeting in day-to-day life	Explains the importance of budgeting in day-to-day life leaving out a few details	Explains the importance of budgeting in day-to-day life leaving out many details

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

Introduction

In Grade 8, 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 projects. 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 one common integrated class CSL project 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 project 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 project. It will focus on 3 components namely: skills from various learning areas applied in carrying out the project, core competencies developed and values nurtured.

APPENDIX 2: LIST OF 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 Fire Safety**	● Question and Answer ● Observation ● Written test ● Practical work ● Peer and self-assessment	● Approved textbooks ● Workshop rules and regulations on fire safety ● Firefighting equipment ● Posters and flyers ● Charts and pictures	● Role playing ● Health club, First Aid clubs, St. John's Ambulance ● Community sensitisation on fire, and data safety and best practices ● Field visit activities
	1.2 Data Safety	● Observation ● Written test ● Question and Answer ● Practical work ● peer and self-assessment	● Digital devices such as; desktop computer, laptop, smart phone, tablets ● Computer software such as antivirus ● Online applications	● Debate on data safety during clubs
2.0 Communication in Pre-Technical Studies 2.1 8	**2.1 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
	2.2 Dimensioning	• Observation • Written test • Question and Answer • Practical work • Peer and self-assessment • Portfolio	• Drawing papers • Pencils • Digital devices such as; computer, laptop, smart phone, tablets among others • Samples of free hand sketches • Three - dimensional realia	Learners debate on importance of dimensioning during clubs and societies
	2.3 Plain scale drawing	• Question and Answer • Observation • Written test • Practical work • Peer and self-assessment • Portfolio	• Drawing books, • Pencils, • Geometrical instruments, • Ruler • Digital devices such as; computer, laptop, smart phone, tablets among others	Learners visit a nearby workshop or a TVET institution to observe and record how plain scale drawing is done and how it is used in the locality.
	2.4 Visual programming	• Question and Answer • Observation • Written test • Practical work	• Digital devices, • Apps • Productivity tools, • Visual programming tools,	• Community presentations on how to navigate the

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		• Peer and self-assessment • Portfolio	• Computer software (OS, Utility software and Application programs) • Internet • Video and audio clips	visual programming applications • Sensitise communities on the use of visual programming • Club and society activities
3.0 Materials for production	**3.1 Composite Materials**	• Question and Answer • Observation • Written test • Practical work • Peer and self-assessment • Portfolio	• Concrete, bricks, manufactured boards, stone, paper-mâché and plastic-coated paper among others • Digital devices, approved books internet, video, audio clips, models, checklists.	Learners go round the compound and the nearby community and collect available composite materials and write down how each is used by the local community
	3.2 Ceramic materials	• Question and Answer • Observation • Written test • Practical work • Peer and self-assessment • Portfolio	• Earthenware, stoneware and porcelain among others • Career brochures, career magazines • Digital devices such as; computer, laptop, smart phone, tablets	Learners visit a nearby workshop to observe and record how ceramics are used to make different gadgets

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4.0 Tools and Production	4.1 Cutting Tools	● Question and Answer ● Observation ● Written test ● Practical work ● Peer and self-assessment ● Portfolios	● Snips, chisel, handsaw, planes, hacksaw, scrappers, knives, strippers and scissors. ● Digital devices such as; computer, laptop, smart phone, tablets	Learners visit a nearby home to observe and record how cutting tools are used in the family and local community
	4.2 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
5.0 Entrepreneurship	5.1 Bookkeeping	● Portfolio ● Question and answer ● Learner's profile ● Written tests ● Observation ● Peer and self-assessment	● Approved textbook ● Digital resources ● Resource persons ● Sample financial records	● Business clubs ● School mentorship programs

		5.2 Income and Budgeting	● Portfolio ● Question and answer ● Learner's profile ● Written tests ● Observation ● Peer and self-assessment	● Approved textbook ● Digital resources ● Resource persons ● Sample personal budget template ● Realia like *piggy* banks and money boxes	● Business clubs ● School mentorship programs
		5.3 Marketing goods and Services	● Portfolio ● Question and answer ● Learner's profile ● Written tests ● Observation ● Peer and self-assessment	● Approved textbooks ● Digital devices, ● Brochures ● Pictures ● Charts ● Flyers ● Brochures ● Newspapers and magazines	● Business clubs ● School mentorship programmes ● Academic field visits to local markets ● Trade fairs and shows
		5.4 Saving and Investment	● Portfolio ● Question and answer ● Learner's profile ● Written tests ● Observation ● Peer and self-assessment	● Approved textbooks ● Digital devices, ● Brochures ● Pictures ● Charts ● Flyers ● Brochures ● Newspapers and magazines	● Academic field visits ● Business clubs and societies ● School mentorship programmes

	5.5 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