REPUBLIC OF KENYA
MINISTRY OF EDUCATION

JUNIOR SCHOOL CURRICULUM DESIGN

PRE-TECHNICAL STUDIES

GRADE 9

FOR LEARNERS WITH PHYSICAL IMPAIRMENT

KENYA INSTITUTE OF CURRICULUM DEVELOPMENT
A Skilled and Ethical Society

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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, feedback from curriculum implementers and other stakeholders led to rationalisation and review of the basic education curriculum.

The reviewed Grade nine curriculum designs for learners with visual impairments build on competencies attained by learners at Grade eight. Emphasis at this grade is the development of skills for exploration and making informed decisions on pathways based on careers.

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.

HON. EZEKIEL OMBAKI MACHOGU, CBS
CABINET SECRETARY,
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PREFACE

The Ministry of Education (MoE) nationally implemented Competency Based Curriculum (CBC) in 2019. Grade seven is the first grade of Junior school while Grade 9 is the final grade of the level in the reformed education structure.

The reviewed Grade nine curriculum furthers implementation of the CBC from Grade eight. The curriculum provides opportunities for learners to focus in a field of their choice to form a foundation for further education and training and/or gain employable skills. 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 nine curriculum designs for learners with visual impairments 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 nine and prepare them for smooth transition to Grade Senior School. Furthermore, it is my hope that teachers will use the adapted 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 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 nine curriculum designs for learners with visual impairments were developed and adapted 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,

I 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 and adaptation of the Grade nine curriculum designs for learners with visual impairmentsIn relation to this, I 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 and adapting these designs. Finally, I am very grateful to the KICD Council Chairperson and other members of the Council for very consistent guidance in the process.

I assure all teachers, parents and other stakeholders that this curriculum design will effectively guide the implementation of the CBC at Grade nine and preparation of learners with visual impairments for transition to Senior school.

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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-fulfillment

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

	LEARNING AREA	**NUMBER OF LESSONS PER WEEK (40 MINUTES PER LESSON)**
1.	ENGLISH	5
2.	KISWAHILI/KENYA SIGN LANGUAGE (KSL)	4
3.	MATHEMATICS	5
4.	RELIGIOUS EDUCATION (CRE/IRE/HRE)	4
5.	SOCIAL STUDIES (INLUDING LIFE SKILLS EDUCATION)	4
6.	INTEGRATED SCIENCE (INLUDING HEALTH EDUCATION)	5
7.	PRE-TECHNICAL STUDIES	4
8.	AGRICULTURE AND NUTRITION	4
9.	CREATIVE ARTS AND SPORTS	5
10	PASTORAL /RELIGIOUS INSTRUCTIONAL PROGRAM	1
	TOTAL	**40 +1**

LEARNING OUTCOMES FOR JUNIOR SCHOOL

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

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

ESSENCE STATEMENT

Pre-Technical Studies is an integrated learning area at Junior School comprising Pre-Technical Studies, Business Studies and Computer Studies. It covers Foundations of Pre-Technical Studies, Communication in the work environment, materials of production, tools and production and entrepreneurship. It is intended to equip the learner with critical thinking, problem-solving, creativity, innovation, communication, digital literacy and financial literacy skills which are considered for their personal life and the world of work.

This learning area is critical at this level as evidenced by the KICD needs assessment report, Kenya Vision 2030, Sessional Papers No 1 of 2005 and 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) and the PWPER recommendations.

Pre-technical Studies at the junior School level recognise that learning and development of competencies is influenced by social-cultural factors, developmental age, instructional opportunities and models as embraced by theories such as the Instructional Design Theory, Vygotsky's Social-Cultural Theory, Gardner's Multiple Intelligence Theory and Piaget's Theory of Cognitive Development. Others are accounting and entrepreneurship theories such as descriptive accounting theory, normative accounting theory and Innovation Theory by Schumpeter 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 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 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	Suggested Number of Lesssons
1.0 Foundations of Pre-Technical studies	1.1 Safety on Raised Platforms	8
	1.2 Handling Harzadous substances	9
	1.3 Self-Exploration and Career Development	6
2.0 Communication in Pre-technical Studies	2.1 Oblique Projection	14
	2.2 Visual Programming	15
3.0 Materials for Production	3.1 Wood	8
	3.2 Handling of Waste Materials	8
4.0. Tools and Production	4.1 Holding Tools	8
	4.2 Driving Tools	8
	4.3 Project	20
5.0 Entrepreneurship	5.1 Financial Services	4
	5.2 Government and Business	6
	5.3 Business Plan	6
Total Number of Lessons		**120**

Note: The suggested number of lesson per 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 Questions
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 r/aised platforms, d) appreciate the need to observe safety while working on raised platforms.	● In purposive pairs or groups, learners walk/move around the school to explore types of raised platforms. *(Ladders, trestles, steps, stands, work benches, ramps)*. Create a conducive environment and adequate space for learners with mobility difficulties as they move around the school. Ensure safety standards are upheld for all learners. ● Learners brainstorm on the types of raised platforms used in day-to-day life. Learners with speech difficulties could be given more time to express themselves or use alternative modes of communication as they share their views.	What is the importance of observing safety when working on a raised platforms?

			• The learners are guided to use digital or print media to search for information on risks associated with working on raised platforms. Learners with manipulation difficulties could use any functional part of the body as they interact with digital devices. Adjust the light intensity for learners sensitive to light. • In purposive groups, learners discuss in purposive groups ways of minimising risks related to working on raised platforms in the workplace. • Learners role-play safe working on raised platforms. Create a conducive environment and adequate space for learners with mobility difficulties and ensure safety for all learners as they role-play. • Learners visit workplaces around the school to observe	

			safety precautions when working on raised platforms. Ensure barrier-free access for learners with mobility difficulties. Safety for all learners should be observed at all times.	

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 when working on raised platform in a workplace.
- Digital Literacy: learner develops searching, evaluating, using and sharing digital information skills during the use of digital media to search for information on risks associated with working on raised platforms.

Values:

- Unity: learner develop 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 when working on raised platforms.
- Responsibility**:** learner diligently 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 is enhanced as the learner discusses with others ways of minimising risks related to working on raised platforms.

• Social cohesion is enhanced as learner works with others when using audio-visual aids and discusses risks related to working on raised platforms.
Link to other subjects: Integrated Science: as learners discuss safety in the workplace.
Suggested Learning Resources Pre-technical Studies curriculum design, Pre-technical Studies handbook, digital resources, volunteer resource person, approved textbooks and reference materials, raised platforms, video clips and visual aids,

Strand	Sub Strand	Specific Learning Outcomes	Suggested Learning Experiences	Suggested Key Inquiry Questions
1.0 Foundations of pre - technical studies	**1.1 Handling Hazardous Substances** (9 lessons)	By the end of the sub strand, the learner should be able to: a) identify hazardous substances found in the immediate environment, b) classify hazardous substances found in the locality, c) describe safe ways of handling hazardous substances in the immediate environment,	• Learner is guided to search for information on hazardous substances (poisonous, flammable, corrosive), Learners with manipulation difficulties could use any functional part of the body or use appropriate assistive devices to search for information. Adjust light intensity when using the digital device for learners with visual difficulties.	1. Why are hazardous substances in the immediate environment labelled? 2. How are hazardous substances handled in the immediate environment?

		d) handle hazardous substances safely in the immediate environment, a) appreciate the importance of observing safety when handling hazardous substances in the immediate environment.	• Learner is guided to explore the locality to identify hazardous substances (poisonous, flammable, corrosive) in the locality, Ensure barrier-free access for learners with mobility difficulties. Safety for all learners should be observed at all times. • Learner is guided to use charts to group substances which are poisonous, flammable or corrosive Learners with manipulation difficulties could use adapted writing materials or type on appropriate adapted digital devices to group substances. • Learner is guided to discuss safe ways of handling hazardous substances in the immediate environment, Learners with speech difficulties could use	

			alternative communication modes as they share their views. • Learner is guided to read and interpret instructions on the conditions for use of hazardous substances, • Learner is guided to visit locality to learn about safe handling of poisonous, flammable and corrosive substances, • Learner is guided to participate in safe handling of poisonous, flammable and corrosive substances in the immediate environment.	

Core Competencies to be developed:

- Digital Literacy: learner acquires digital skills when using digital devices to search for information on hazardous substances.
- Communication and Collaboration: learner develops speaking, listening and self-expression skills when discussing safe ways of handling hazardous substances.

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 discuss safe ways of handling hazardous substances in the immediate environment.
Pertinent and Contemporary Issues(PCIs): Disaster Risk Reduction: learner's ability to identify hazards is enhanced when discussing safe ways of handling hazardous substances in the immediate environment.
Link to other subjects Integrated Science: learner enhances knowledge on laboratory safety as they exercise safe ways of handling hazardous substances.

Strand	Sub Strand	Specific Learning Outcomes	Suggested Learning Experiences	Suggested Key Inquiry Questions
1.0 Foundations of Pre-Technical Studies	**1.3 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 self-development, b) relate talents and abilities to career pathways, c) analyse ethical ethical practices related to the use of talents and abilities,	The learner is guided to: • discuss and present on ways of nurturing talents and abilities, Learners with speech difficulties could use alternative communication modes as they share their views. • display talents and abilities through clubs and societies	1. How are talents and abilities nurtured? 2. Why is self-exploration necessary for career development?

		d) choose a career based on talents and abilities for self-development.	and other planned school activities, Create a conducive environment and adequate space for learners with mobility difficulties and ensure safety for all learners as they perform the activity. Assign activities according to each learners ability. • Learners are guided to make a list of talents and abilities and the corresponding career pathways, • Learners are guided to engage with a resource person on career opportunities related to talents and abilities in Pre-Technical Studies, • Learners discuss a case scenario on ethical and unethical practices related to the use of talents and abilities.	

Core Competencies to be developed:

- Critical Thinking and Problem Solving: learner interprets and makes inference when reading and analyzing a case scenario on ethical and unethical practices related to the use of talents and abilities.
- 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.

Values:

- Integrity: learner develops accountability when analysing a case scenario 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.

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: learner enhances creative skill during the display of talents and abilities through clubs and societies and other planned school fora.

Suggested Assessment Rubric

Level / Indicator	Exceeds Expectations	Meets Expectations	Approaches Expectations	Below Expectations
Ability to describe risks associated with working on raised platforms	Describes risks associated with working on more than five raised platforms	Describes risks associated with working on five raised platforms	Describes risks associated with working on three to four raised platforms	Describes risks associated with working on two or less raised platforms
Ability to describe safe ways of handling hazardous substances in the environment	Describes safe ways of handling hazardous substances in the environment citing examples	Describes safe ways of handling hazardous substances in the environment	Describes some safe ways of handling hazardous substances in the environment	With prompts describes safe ways of handling hazardous substances in the environment
Ability to relate talents and abilities to career pathways	Relates talents and abilities to career pathways with illustrations	Relates talents and abilities to career pathways	Relates some talents and abilities to career pathways	With prompts relates talents and abilities to career pathways

STRAND 2.0: COMMUNICATION IN THE 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 Oblique Projection (14 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 Pre-technical Studies.	• Learners are guided to use digital or print media to search for information on characteristics of oblique drawings. Learners with manipulation difficulties could use any functional part of the body as they interact with digital devices. Adjust light intensity for learners with visual difficulties. • In purposive pairs or groups, learners brainstorm on the characteristics of oblique drawings. Learners with speech difficulties could use alternative communication modes as they share their views.	How are oblique drawings used in technical fields?

			• Learners are guided to draw given drawings in oblique projection without using instruments. *(ensure neatness, correct line work, maintain proportionality, correct labelling and maintain accuracy).* • In purposive pairs or groups, learners discuss the steps for drawing shaped blocks in oblique projection. • Learners are guided to 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).* Learners with manipulation difficulties could use appropriate adapted drawing tools or be assisted by peers to perform the task.	

Core competencies to be developed:

- Communication and collaboration: learner develops speaking, listening and self-expression skills when brainstorming on the characteristics of oblique drawings.
- Critical thinking and problem-solving: learner develops interpretation and inference skills when drawing three-dimensional diagrams.

Pertinent and contemporary issues (PCIs):

- Peer education and mentorship: as learner practises skills during the discussion of the steps for drawing three-dimensional diagrams in oblique.
- Social cohesion**:** Learner develops ability to relate well with others as they brainstorm on the characteristics of oblique drawings.

Values:

- Responsibility: learner diligently cares for the print and digital media as well as drawing instruments when learning how to draw three-dimensional objects in oblique.
- Unity: learner cooperates with others when using audio-visual aids in groups to search for information on and discussing characteristics of oblique drawings.

Link to other subjects:

- Creative arts and Sports: as learners make free-hand pictures of three-dimensional objects.
- Mathematics: as the learner makes oblique drawings to specified dimensions in technical drawing

Suggested Learning Resources

Pre-technical Studies curriculum design, Pre-tech Studies handbook, approved textbooks and reference materials, drawing papers, pencils, digital devices such as; computer, laptop, smart phone, tablets samples of free hand sketches, three - dimensional realia,

Strand	Sub-Strand	Specific Learning Outcomes	Suggested Learning Experiences	Suggested Key Inquiry Questions
2.0 Communication In Pre-technical Studies	**2.2 Visual Programming (15 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 day-to-day life.	● Learners are guided to use available resources to search for information on the application areas of visual programming *(mobile programming and web development).* Learners with manipulation difficulties could use any functional part of the body as they search for information and when using digital devices. Adjust the screen resolution for learners sensitive to light. ● In purposive groups, learners discuss the application areas of visual programming software. Learners with speech difficulties could use alternative communication modes as they share their views.	How are applications developed using visual programming software?

			● Learners search and play a video on how to develop an application using visual programming software *(games and stories)* Learners with postural defects could be supported by providing preferential positioning during this learning experience. Adjust screen glare for learners sensitive to light. ● The learners are guided to develop interactive stories, games and animations.	
Core competencies to be developed: ● **Self-efficacy:** leadership skills are developed as the learner shares experiences on application areas of visual programming with peers. ● Critical thinking and problem solving**:** open minded and creativity skills are developed as the learner creates an application using visual programming software.				
Value: **Social justice:** learner unites with others as they work in groups to develop applications.				

Pertinent and Contemporary Issues (PCIs):

- Peer education and mentorship: interpersonal relationships are 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.

Suggested Learning Resources

Pre-tech Studies curriculum design, Pre-technical Studies handbook, digital resources, approved textbooks and reference materials, Internet video clips, audio clips, models, visual programming software,

Suggested Assessment Rubric

Level / Indicator	Exceeds Expectations	Meets Expectations	Approaches Expectations	Below Expectations
Ability to explain the characteristics of oblique drawing in technical fields	Explains the characteristics of oblique drawing in technical fields with illustrations	Explains the characteristics of oblique drawing in technical fields	Explains the characteristics of oblique drawing in technical fields leaving out few details	Explains the characteristics of oblique drawing in technical fields leaving out many details
Ability to create an application	Creates an application using visual	Creates an application using visual	Creates an application using visual programming	Creates an application using visual

using visual programming software for solving problems in day-to-day life	programming software for solving problems in day-to-day life with enhanced user friendly features	programming software for solving problems in day-to-day life	software for solving problems in day-to-day life with basic features	programming software for solving problems in day-to-day life with simplistic features

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 the production of items, c) relate types of wood to their uses in the community, d) value the importance of wood in day-to-day life.	● Learners use print or digital media to search for information on the types of wood used at the immediate environment. Learners with manipulation difficulties could use any functional part of the body as they interact with print and digital devices. Adjust light intensity for learners sensitive to light. ● The learners are guided to use a checklist to sort wood into either softwood or hardwood. ● Learners discuss in purposive groups methods of wood preparation for use in the workplace *(conversion and seasoning).* Learners with speech difficulties could use alternative communication	Why is wood an important material day-to-day life?

			modes as they share their ideas. ● Learners are guided to visit the locality to explore the uses of wood. Ensure barrier-free access for learners with mobility difficulties. Safety for all learners should be observed at all times. ● In purposive pairs or groups, learners develop charts to match types of wood to their uses. Learners with manipulation difficulties could use adapted writing materials or type on appropriate adapted digital devices to develop charts. ● In purposive groups/ pairs, learners brainstorm on the uses of wood in different trades.	

Core competencies to be developed:

- Digital literacy: learner develops technology skills when interacting and manipulating digital devices to search for information on types of wood.
- Learning to learn: learner acquires skills of organizing own learning and works collaboratively with others as they reflect on how different items are made from wood during visit to nearby workplaces.

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.

Values:

- Unity as the learner cooperates with others when sharing digital and print media to search for information on types of wood.
- Respect as the learner accepts diverse opinions when discussing methods of wood preparation.

Links to other learning areas:

Social studies: as learner identifies the types of wood used at the workplace

Suggested Learning Resources

Assorted Pieces of wood (hard and soft), career brochures, career magazines digital devices such as computer, laptop, smart phone, tablets

Strand	Sub-Strand	Specific Learning Outcomes	Suggested Learning Experiences	Suggested Key Inquiry Questions
3.0 Materials for production	**3.2 Handling Waste Materials (8 lessons)**	By the end of the sub strand, the learner should be able to: a) identify waste materials in the workplace, b) describe ways of handling waste materials safely in the immediate environment. c) recycle waste materials to make items for day-to-day use, d) appreciate the need for proper waste management in the immediate environment.	• Learners are guided to visit the locality to identify waste materials, *(plastic, glass, metal, paper, electronic waste, animal waste, construction waste)* Ensure barrier-free access for learners with mobility difficulties. Safety for all learners should be observed. • use print or digital resources to search for information on safe ways of handling waste materials in the environment, Adjust light intensity when using the digital device for learners with visual difficulties. • demonstrate safe handling of waste materials, Learners with manipulation difficulties could use any functional part of the body or	How can we re-use waste materials?

			use appropriate assistive devices during this activity. • collect recyclable waste materials from the locality, • make items from recyclable waste materials.	

Core Competencies to be developed:

- Self-Efficacy: effective communication skills are developed as the learner searches for information on safe ways of handling waste materials in the environment
- Digital Literacy: learner develops digital skills when interacting and manipulating digital devices to search for information on safe ways of handling waste materials in the environment.

Value:

Responsibility: learner safely handles and disposes waste materials when making household items from waste materials.

Pertinent and Contemporary Issues (PCIs):

Internet Safety and Security: responsible online behaviour is enhanced as learner uses digital or print resources to search for information on safe ways of handling waste materials.

Link to other subjects

Creative Arts: learner enhances design skills when making items from recyclable waste materials.

Suggested Assessment Rubric

Level / Indicator	Exceeds expectations	Meets expectations	Approaches expectations	Below expectations
Ability to describe the preparation of wood for use in production of items	Describes the preparation of wood for use in production of items in details	Describes the preparation of wood for use in production of items	Describes the preparation of wood for use in production of items leaving out a few details	Describes the preparation of wood for use in production of items leaving out many details
Ability to recycle waste materials to make items for day-to-day use	Recycle waste materials to make highly functional items for day-to-day use	Recycle waste materials to make items for day-to-day use	Recycle waste materials to make basic items for day-to-day use	Recycle waste materials to make simplistic items for day-to-day use

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** (8 lessons)	By the end of the sub strand, the learner should be able to: a) identify holding tools used in the immediate environment, b) select holding tools for a given task in the community, c) use holding tools to perform a given task in the community, d) care for holding tools in the immediate, e) appreciate the importance of holding tools in the community.	• Learners are guided to use visual aids or real objects to identify holding tools (*pliers, clamps, tongs, clips, spanner, vice),* Learners with manipulation difficulties could use alternative functional part of the body or appropriate assistive technology they interact with the visual aids and realia. Safety precautions should be maintained for all learners. • Learner are guided to choose holding tools for different tasks. • Learners discuss in purposive groups the use of holding tools. Learners with speech difficulties could use alternative communication	How are holding tools used in the immediate environment?

			modes as they share their views. • The learners are guided to watch audio-visual aids on the safe use of holding tools in the workplace Learners with postural limitations could be preferentially positioned when watching the audio-visual aids. • Learners are guided to demonstrate safe use of holding tools when performing different types tasks. • Learners are guided to practice using holding tools for given tasks Ensure barrier-free access for learners with mobility difficulties and uphold safety measures at all times during this task. • Learners are guided to clean, maintain and store holding tools in the 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 acquires reflection skills when demonstrating safe use of holding tools to perform given tasks.
- Digital Literacy: learner develops interacting skills when manipulating audio-visual aids on safe use of 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 to their safe use.

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

Link to other subjects:

Agriculture & Nutrition: as learners identify and demonstrate how to use and care for holding tools

Suggested Learning Resources

Pre-technical Studies curriculum design, Pre-technical Studies handbook, digital resources, approved textbooks and reference materials, pliers, clamps, spanners, vice, tongs,

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 the community, b) select driving tools for a given task in the immediate environment, c) use driving tools to perform a given task, d) care for driving tools in the immediate environment, e) acknowledge the importance of driving tools in the community.	• Learners use visual aids or realia to identify driving tools in the community *(hammer, screwdriver, spanner, punches, and mallets)*. Learners with manipulation difficulties could use alternative functional part of the body or appropriate assistive technology to manipulate the visual aids and realia. Safety precautions should be maintained for all learners. • In purposive groups or pairs, learners discuss the use of driving tools for different tasks. Learners with speech difficulties could use alternative communication modes as they share their views.	How are different types of driving tools used to perform tasks?

			• Learners are guided to use audio-visual devices to search and watch on the safe use of driving tools in the workplace. Learners with postural limitation could be preferentially positioned for enhanced viewing. • Learners are guided to demonstrate safe use of driving tools to perform different types of tasks. • Learners are guided to clean, maintain and store driving tools in the community.	
Core Competencies to be developed: • Self-Efficacy: effective communication skills are developed as the learner searches for information on safe ways of handling waste materials in the environment • Digital Literacy: learner develops digital skills when interacting and manipulating digital devices to search for information on safe ways of handling waste materials in the environment.				
Value: Responsibility: learner safely handles and disposes waste materials when making household items from waste materials.				

Pertinent and Contemporary Issues (PCIs): Internet Safety and Security: responsible online behaviour is enhanced as learner uses digital or print resources to search for information on safe ways of handling waste materials.
Link to other subjects Creative Arts: learner enhances design skills when making items from recyclable waste materials.

Strand	Sub strand	Specific learning outcomes	Suggested learning experiences	Suggested Key Inquiry Question(s)
4.0 Tools and production	**4.3 Project (20 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 day-to-day life.	• Learners are guided to explore the locality to establish problems that can be solved using the skills acquired in this learning area. Create a conducive environment and adequate space as they explore the locality for learners with mobility difficulties and ensure safety standards are upheld for all learners. • In purposive groups/ pairs, learners brainstorm on the problems in the locality that	How are competencies acquired in Pre-Technical Studies used to solve day-to-day problems?

			can solved using the skills acquired. Learners with speech difficulties could use alternative communication modes as they share their views. Allow more time to share their ideas. • Learners use a digital or print media to search for information on possible items to solve the identified need. Learners with manipulation difficulties could use any functional part of the body as they interact with print and digital devices. Adjust light intensity when using the digital device. • In purposive groups/ pairs, learners discuss possible items that can be made to solve the identified problem. • Learners select one item that can be made using the skills acquired to solve the	

			identified problem. Learners with manipulation difficulties could use alternative functional parts of the body or appropriate assistive technology to perform the task. • Learners are guided to sketch the item that can be made using the skills acquired to solve the identified problem. Learners with manipulation difficulties could use any functional part of the body or use appropriate assistive devices to sketch • In purposive groups/ pairs, learners use locally available materials and tools to make the identified item. • Learners are guided to estimate the cost to determine the price for the item.	

			• In purposive groups/ pairs, learners display the finished item to peer assessment. • The learners in purposive groups take photographs of the item and post on a digital portfolio.	

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.

Link to other subjects: Creative Arts: learner enhances knowledge on drawing during the sketching of an item that can be made using the skills acquired in Pre-Technical Studies.
Suggested Learning Resources Pre-technical Studies curriculum design, Pre-technical Studies handbook, digital resources, approved textbooks and reference materials, realia

Suggested Assessment Rubric

Level / Indicator	**Exceeds expectations**	**Meets expectations**	**Approaches expectations**	**Below expectations**
Ability to identify holding tools used in the locality	Identifies more than five holding tools used the locality	Identifies five holding tools used in the locality	Identifies three to four holding tools used in the locality	Identifies two holding tools used in the locality
Ability to observe safety when using driving tools to perform a given task	Always observes safety when using driving tools to perform a given task	Often observes safety when using driving tools to perform a given task	Occasionally observes safety when using driving tools to perform a given task	Rarely observes safety when using driving tools to perform a given task
Ability to make an item to solve the identified problem (*identify problems, select a problem that*	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

can be solved, come up with a solution to the problem, implement the solution, test and present for evaluation)				

5.0 ENTREPRENEURSHIP

Strand	Sub-Strand	Specific Learning Outcomes	Suggested Learning Experiences	Suggested Key Inquiry Question
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 the types of financial institutions in Kenya, c) analyse services offered by financial institutions in Kenya, d) utilise financial services for entrepreneurial development.	● Learners use print or digital media to search for information on financial institutions available in Kenya. Adjust light intensity for learner with visual difficulties. ● Learners discuss in purposive groups and present the types of financial institutions in Kenya. *(Banks, insurance, SACCOs, microfinance).* Learners with speech difficulties could use alternative communication modes as they share their views and use appropriate assistive devices during presentations. ● Learners are guided to use ICT and other available resources to search for	How are the services offered by different financial institutions in Kenya important?

			information services offered by financial institutions in Kenya. For learners with manipulation difficulties use of any functional part of the body is encouraged, as they search for information using ICT. ● In purposive groups, learners use a case study on financial institutions to identify the financial services.	

Core competencies to be developed:

- Learning to learn: learner acquires skills of organising self-learning when identifying services offered by financial institutions.
- 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.
- Digital literacy: learner acquires the skills of connecting and interacting with digital technology when searching for information services offered by financial institutions in Kenya,

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,
- Peace: learner works in harmony with other members when discussing and presenting 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 & Nutrition**:** as the learner learns about financial services offered to farmers

Suggested Learning Resources
Pre-technical Studies curriculum design, Pre-tech Studies handbook, digital resources, approved textbooks and reference materials

Strand	Sub Strand	Specific Learning Outcomes	Suggested Learning Experiences	Suggested Key Inquiry Questions
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,	• In purposive groups/pairs, learners brainstorm and present on the reasons for government	1. Why is it important for the Government to get involved in business?

		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.	involvement in business in Kenya. Learners with speech difficulties could use alternative communication modes as they share their views. For those with manipulation difficulties, the use of any functional part of the body or the use of appropriate assistive devices during presentations is encouraged. ● Learners are guided to use available resources to search for information on ways of Government involvement in business. ● In purposive groups/pairs, learners	2. Why is it important for the Government to get involved in Business?

			discuss and present on the meaning and importance of paying taxes in Kenya. ● In purposive groups/pairs, learners discuss and present on the types of taxes in Kenya *(income tax, VAT, corporate tax, excise duty),* and present to peers. ● Learners are guided in purposive groups to prepare and display posters in the school community on the need to pay tax in Kenya. Create a conducive environment and offer adequate space for learners with mobility difficulties during the preparation and display of posters.	

			Ensure safety standards are upheld for all learners. ● In purposive groups/pairs, learners discuss a case study on e- Government services in business. ● Learners are guided to use ICT tools to access and interact with e- Government platform in Kenya. Learners with manipulation difficulties could use any functional part of the body, as they search for information using ICT. Adjust light intensity for learners with visual difficulties.	

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 interacting skills 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.

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.

Suggested Learning Resources

Pre-tech Studies curriculum design, Pre-tech Studies handbook, Digital resources, Approved textbooks and reference materials

Strand	Sub Strand	Specific Learning Outcomes	Suggested Learning Experiences	Suggested Key Inquiry Questions
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.	• In purposive groups/pairs, learners brainstorm and present the meaning and importance of business plan. Learners with speech difficulties could use alternative communication modes as they share their views. For those with manipulation difficulties, the use of any functional part of the body or the use of appropriate assistive devices during presentations is encouraged. • Learners are guided to use available resources to search for meaning and importance of business plan. Learners with manipulation difficulties could use any functional	1. Why is a business plan important to an entrepreneur? 2. How is a business plan prepared?

			part of the body to search for information as they interact with digital devices where used. Adjust light intensity for learners with visual difficulties. ● In purposive groups/pairs, learners discuss and present the components of a business plan. ● Learners read case studies in purposive groups/pairs on the components of a business plan and present findings. ● Learners are guided to complete a business plan template *(executive summary business description, product and service, market/competitor analysis, financial projection and marketing plan).* Learners with manipulation difficulties could use adapted writing	

			materials or type on appropriate adapted digital devices to fill in the template.	

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: learner enhances knowledge on marketing of agricultural produce when discussing business plan.

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.

Suggested Assessment Rubric				
Level / **Indicator**	**Exceeds expectations**	**Meets expectations**	**Approaches expectations**	**Below expectations**
Ability to identify financial institutions available in Kenya	Identifies four financial institutions available in Kenya	Identifies three financial institutions available in Kenya	Identifies two financial institutions available in Kenya	Identifies two or less financial institutions available in Kenya
Ability to explain the reasons for government involvement in business in Kenya	Explains the reasons for government involvement in business in Kenya citing examples	Explains the reasons for government involvement in business in Kenya	Explains some of the reasons for government involvement in business in Kenya	With prompts explains of the reasons for government involvement in business in Kenya
Ability to fill a business plan 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 I: 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 with physical impairment 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. Learners with speech difficulties could use Alternative and Augmentative modes of Communication-AAC (residual speech/ digital devices with text-to-speech application/ point/sign/write) during the discussion.
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. Learners with manipulation difficulties could use alternative functional parts of the body, appropriate assistive devices or be assisted by peers or teacher to perform the task.
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 learning from feedback. Learners with manipulation difficulties could be provided with adapted writing materials such as pen/pencils with grip. They could also type on an adapted digital device or be assisted by a scribe or learner support assistant to write the report. Those with postural deformities could require appropriate positioning.
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 II: LIST OF ASSESSMENT METHODS, LEARNING RESOURCES AND NON-FORMAL ACTIVITIES

Strands	Sub Strands	Suggested Assessment Methods	Suggested adaptation.	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	• Typing, stamping or signing • Description of the task as a scribe or learner support assistant writes Audio visual recording of the learner as he/she makes oral responses • Provision of Adapted digital devices and writing/drawing resources • Adjustment of time according to individual needs • Providing illustrations to be interpreted for activities that involve drawing • Use of worksheets	Learners take a walk /move around the school and identify types of raised platforms.

	1.4 Self-Exploration and Career Development	• Assignments • Self and peer assessment • Oral questions • Observation	• Written responses • Use of AAC (Augmentative and Alternative modes of Communication) e.g. talking books, gestures, body movement, sign language, alphabet cards, facial expressions • Adjustment of time according to individual needs	• 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	• Use of E-Portfolio • Provision of physical support • Use of assistive technology • Provision of Adapted digital devices and writing/drawing resources	Create awareness to community members on how to select appropriate type of application software for their computers

		• anecdotal records • observation schedules	• Adjustment of time according to individual needs • Description of how to carry out a practical activity while being audio/video recorded	
2.0 Communication	2.1 Oblique Projection	• Oral tests • Observation • Checklist • Written test • Rubrics • Project • Practical work • Portfolio	• Use of E-Portfolio • Provision of physical support • Provision of Adapted resources (learner specific) • Description of how to carry out a practical activity while being audio/video recorded • Adjustment of time according to individual needs • Rest intervals according to individual needs • Environmental adaptation	Learners take a walk / move 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	• Use of E-Portfolio • Provision of physical support • Provision of Adapted resources (learner specific) • Description of how to carry out a practical activity while being audio/video recorded • Adjustment of time according to individual needs • Environmental adaptation	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	• Provision of physical support • Provision of Adapted resources (learner specific) • Description of how to carry out a practical activity while being audio/video recorded • Adjustment of time according to individual needs	Learners visit the locality to explore process of wood preparation and uses

			• Rest intervals according to individual needs • Environmental adaptation	
	3.2 Hazardous Materials	• Oral tests • Observation • Checklist • Written test • Rubrics • Project • Practical work	• Provision of physical support • Provision of Adapted resources (learner specific) • Description of how to carry out a practical activity while being audio/video recorded • Adjustment of time according to individual needs • Environmental adaptation	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	• Provision of physical support • Provision of Adapted resources (learner specific) • Description of how to carry out a practical activity while being audio/video recorded • Adjustment of time according to individual needs • Environmental adaptation	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	• Provision of physical support • Provision of Adapted resources (learner specific) • Description of how to carry out a practical activity while being audio/video recorded • Adjustment of time according to individual needs Environmental adaptation	Learners visit work environments around your locality and observe the various uses, care and storage of driving tools

	4.4 Distribution of Goods and Services	• Assignments • Self and peer assessment • Oral questions • Portfolio Assessment • Observation • Rubrics • Tests	• Use of E-Portfolio • Provision of physical support • Provision of Adapted resources (learner specific) • Description of how to carry out a practical activity while being audio/video recorded • Adjustment of time according to individual needs • Environmental adaptation	• 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
	4.5 Project	• Portfolio • Observation • interview	• Use of E-Portfolio • Adjustment of time according to individual needs • Environmental adaptation	• 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	• Provision of physical support • Description of how to carry out a practical activity while being audio/video recorded • Provision of Adapted digital devices and writing/drawing resources • Adjustment of time according to individual needs • Environmental adaptation	• 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	• Provision of physical support • Provision of Adapted resources (learner specific) • Description of how to carry out a practical activity while being audio/video recorded • Adjustment of time according to individual needs	• 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	• Provision of physical support • Provision of Adapted resources (learner specific) • Description of how to carry out a practical activity while being audio/video recorded • Adjustment of time according to individual needs • Environmental adaptation • Use of assistive technology	• 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