THE REPUBLIC OF UGANDA
Ministry of Education and Sports

ADVANCED SECONDARY CURRICULUM

WOODWORK SYLLABUS

NCDC
NATIONAL CURRICULUM DEVELOPMENT CENTRE

2025

ADVANCED SECONDARY
CURRICULUM

WOODWORK
SYLLABUS

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A product of the National Curriculum Development Centre for the Ministry of Education and Sports with support from the Government of Uganda

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Foreword

The Ministry of Education and Sports, through the National Curriculum Development Centre (NCDC), aligned the Advanced Level Curriculum with the competency-based Lower Secondary Curriculum (LSC) to ensure a smooth learner transition from lower secondary to advanced level.

The two-year aligned Advanced Secondary Curriculum adopted learner-centered approaches, inquiry-based, and discovery methods. The learning outcomes give the learner hands-on experiences in real-life situations while being cognizant of different learner abilities and learning styles. The syllabus focuses on assessment for learning with emphasis on criterion-referenced assessment. It further provides learners with the opportunity to enhance the 21st-century skills and values that were acquired at the lower secondary level.

This Woodwork syllabus provides technical skills and vocational training for learners, enhancing their employability and enabling them to pursue careers in sectors such as carpentry, cabinetry, furniture making, and joinery. It promotes acquisition of Higher-order Thinking Skills (HOTS) such as inquiry, creativity and innovation, decision-making, critical thinking and problem-solving. It calls for use of learner centred pedagogies with hands-on experience by the learners in real life situations, while acknowledging different learner abilities and learning styles.

As the Minister responsible for Education, I endorse this syllabus as the official document for teaching and learning Woodwork at the Advanced Level of secondary education in Uganda.

Hon. Janet Kataaha Museveni

First Lady and Minister of Education & Sports

Acknowledgement

The National Curriculum Development Centre (NCDC) is indebted to the Government of Uganda for financing the alignment of the Advanced Level Curriculum to Lower Secondary Education in Uganda.

Our gratitude goes to the Ministry of Education and Sports for overseeing the adaptation of the curriculum, the Curriculum Task Force of the Ministry of Education and Sports for the oversight role and making timely decisions whenever necessary, and members of the public who made helpful contributions towards shaping this curriculum.

NCDC is also grateful to Members of Parliament, schools, universities, and other tertiary institutions, the writing panels, and professional bodies, for their input in the design and development of the Adapted A level curriculum. To all those who worked behind the scenes to finalise the adaptation process of this teaching syllabus, your efforts are invaluable.

NCDC takes responsibility for any shortcomings that might be identified in this publication and welcomes suggestions for effectively addressing the inadequacies. Such comments and suggestions may be communicated to NCDC through P. O Box 7002, Kampala, or Email: admin@ncdc.go.ug or on the Website: www.ncdc.go.ug

Dr Grace K. Baguma
Director
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1.0 INTRODUCTION

The Advanced Secondary Curriculum has been aligned with the Lower Secondary competency-based model for ease of progression of learners from the Lower to Advanced Secondary Level. The alignment is a result of the analysis of the Advanced Level Curriculum published in 2013, to determine whether the content is:

i) Appropriate.
ii) High pitched or overload.
iii) Covered at lower secondary.
iv) Obsolete.
v) Repeated in different topics and redundant.

The results from the curriculum analysis revealed that there were overlaps of concepts with what was covered at the Lower Secondary, as well as concepts within different topics of the same subject. In addition, a number of syllabuses had content that is no longer necessary for today's contemporary society and the 21st century.

1.1 Changes in the Curriculum

The alignment of the A-Level Curriculum to that of the Lower Secondary led to changes in the pedagogies of learning from a knowledge- and objective-based, to an integrated and learner-centred competency-based approach. The adapted syllabus, therefore, is a result of rationalising, integrating, and merging content with overlaps and similar skills, dropping topics that had been studied at Lower Secondary, or are no longer critical and relevant for the current learning needs, while upgrading those that were of low competencies to match with the advanced level. The programme planner details the learning progression derived from the learning outcomes. The detailed syllabus section unfolds the learning experiences with corresponding assessment strategies.

This Woodwork syllabus is part of the Advanced Secondary Curriculum. The teacher is encouraged to read the whole syllabus before planning your teaching programme, since many topics have been merged, upgraded, or removed. While aligning this syllabus, efforts were made to ensure a smooth progression of concepts from the Lower Secondary Level, adapting topics and content with familiar features that are of value to the learner and society. In addition, the process of developing this syllabus document removed what was considered obsolete, high pitched as well as content overlaps and overloads.

1.2 Classroom Based Assessment

This syllabus requires classroom learning to be experiential, through the suggested learning activities for the acquisition of the learning outcomes. This is the gist of a learner-centred and activity-based approach to learning, which emphasises the acquisition of required competencies. Formative assessment in Woodwork will focus on the acquisition of knowledge and skills, through performance of the learning activities. The learning activities sprout from the learning outcomes, which are evidenced by acquiring and demonstrating the application of the desired skills, to show that learning has taken place. The sample assessment strategies have been provided to guide the teacher on classroom-based assessment. The teacher can develop more assessment strategies based on the same principles of observation, conversation, and product, for the acquisition of the desired knowledge, skills, values, and attitudes. (See detailed syllabus)

1.3 Learners with Special Educational Needs

The Advanced Secondary Curriculum is designed to empower all learners, including those with Special Educational Needs (SEN), to reach their full potential and contribute meaningfully to the nation. By incorporating inclusive strategies, the curriculum ensures equitable access to high-quality learning opportunities while maintaining high academic standards. It emphasises creating an inclusive learning environment that supports the diverse needs of learners with SEN, enabling them to succeed alongside their peers.

1.4 Generic Skills

Generic skills are embedded within all subjects and are essential for learning and workforce readiness. These skills enable learners to engage with the entire curriculum effectively and prepare them for lifelong learning. These skills equip learners with the ability to adapt to change and navigate life's challenges in the 21st century.

The key generic skills include:

1

Critical thinking and problem-solving

i) Planning and carrying out investigations
ii) Sorting and analysing information
iii) Identifying problems
iv) Predicting outcomes and making reasoned decisions
v) Evaluating different solutions

2

Co-operation and Self-Directed Learning

i) Working effectively in diverse teams
ii) Interacting effectively with others
iii) Taking responsibility for own learning
iv) Working independently with persistence
v) Managing goals and time

3

Creativity and Innovation

i) Using imaginations to explore possibilities
ii) Working with others to generate ideas
iii) Suggesting and developing new solutions
iv) Experimenting with innovative alternatives
v) Looking for patterns and making generalisation

4

Communication

i) Listening attentively and with comprehension
ii) Talking confidently and explaining ideas/opinions clearly
iii) Reading and writing fluently
iv) Writing and presenting coherently
v) Using a range of media to communicate ideas

5

Mathematical Computation

i) Using numbers and measurements accurately
ii) Interpreting and interrogating mathematical data
iii) Using mathematics to justify and support decisions

6

Information and Communication Technology (ICT) Proficiency

i) Using technology to create, manipulate and process information
ii) Using technology to collaborate, communicate and refine work

7

Diversity and Multicultural Skills

i) Appreciate cultural diversity
ii) Respectfully responding to people of all cultures
iii) Respecting positive cultural practices
iv) Appreciating ethnicity as a cradle for creativity and innovation

1.5 Cross-cutting Issues

These are issues which learners need to learn about, and are not confined to a particular subject but are studied across subjects. They help learners to develop an understanding of the connections between the subjects and the complexities of life as a whole. They are;

- Environmental awareness
- Health awareness
- Life skills
- Mixed abilities and involvement
- Socio-economic challenges
- Citizenship and patriotism.

These are a concern to all mankind irrespective of their areas of specialty. They are infused in the different learning outcomes of the different subjects.

1.6 Values

The curriculum is based on a clear set of values. These values underpin the whole curriculum and the work of schools. Learners need to base themselves on these values as citizens of Uganda. These values are derived from the Uganda National Ethics and Values Policy of 2013. They are;

i) Respect for humanity and environment
ii) Honesty, uphold and defend the truth at all times
iii) Justice and fairness in dealing with others
iv) Hard work for self-reliance
v) Integrity; moral uprightness and sound character
vi) Creativity and innovation
vii) Social responsibility
viii) Social harmony
ix) National unity
x) National consciousness and patriotism.

These are not taught directly in lessons, nor are they assessed by pen and paper. However, they are incorporated in some learning outcomes and are developed as learners progress.

1.7 ICT Integration

The integration of ICTs into teaching and learning is strongly encouraged in this A-level adapted curriculum. ICT enhances the implementation of competency-based learning by fostering learner engagement, creativity, and lifelong learning. Teachers are encouraged to use technology to create interactive content, such as digital simulations and videos, to illustrate abstract or complex concepts effectively. Integrating ICT not only enhances the learning experience but also equips learners with essential digital skills for the 21st century.

ICT teachers should endeavor to assist other subject teachers in making the ICT integration process a reality. The table below shows a sample of suggested ICT tools that may be applied to given tasks.

Sample Task in the Syllabus	Suggested ICT Tool
Fieldwork	Use of cameras to take photos and record videos
Locate places on a map	Use digital maps such as Google Maps or an equivalent application.
Presentation in class	Use presentation applications or online presentation tools like Canva
Search for keywords and meanings	Use an online dictionary or search online
Make drawing/graphics	Use drawing tools like Draw.io or publishing software/Word processor
Roleplay, narrations	Use audio and video recordings
Demonstrations	Use audio/video recordings, models, simulations, or virtual labs
Analyse and present data	Use spreadsheet software or any other analytics tools
Group discussions	Mind mapping software
Search for extra reading materials	Download files from the Internet from academic Databases
Writing equations and formulae	Use equation editors like Math Type
Carry out academic search/research	Use the Internet, AI models, and other academic applications like "Encarta", "Britannica", etc.
Collaborate with others across the world	Form learning networks with blogs, social media, emails, and videoconferencing tools like Zoom, MS Teams, Webex, Google Meet or any other networking application.

1.8 Projects

Projects and project-based learning are integral to education in the 21st century. In Woodwork, the learner will be tasked with identifying a community problem and through a needs analysis will design and create a product using woodworking skills to address the identified needs. All stages of the process will be documented in a portfolio, which will be assessed. This project will connect theoretical knowledge to practical tasks, promote academic research, keep learners engaged and motivated and not only prepared for academic success but also for real-life challenges. Teachers are encouraged to guide learners to engage in projects that can easily be linked to what is happening in their local environment.

1.9 The Aims of Secondary Education

The aims of secondary education in Uganda are to:

i) Instill and promote national unity, an understanding of the social and civic responsibilities, strong love and care for others and respect for public property, as well as an appreciation of international relations and beneficial international co-operation.

ii) Promote an appreciation and understanding of the cultural heritage of Uganda including its languages.

iii) Impart and promote a sense of self discipline, ethical and spiritual values, personal and collective responsibility and initiative.

iv) Enable individuals to acquire and develop knowledge and an understanding of emerging needs of society and the economy.

v) Provide up-to-date and comprehensive knowledge in theoretical and practical aspects of innovative production, modern management methods in the field of commerce and industry and their application in the context of socio-economic development of Uganda.

vi) Enable individuals to develop basic scientific, technological, technical, agricultural and commercial skills required for self-employment.

vii) Enable individuals to develop personal skills of problem solving, information gathering and interpretation, independent reading and writing, self-improvement through learning and development of social, physical and leadership skills such as are obtained through games, sports, societies and clubs.

viii) Lay the foundation for further education.

ix) Enable the individual to apply acquired skills in solving problems of community, and to develop a strong sense of constructive and beneficial belonging to that community.

x) Instill positive attitudes towards productive work and strong respect for the dignity of labour and those who engage in productive labour activities.

xi) Develop a positive attitude towards learning as a lifelong process.

1.10 Aims of the Advanced Secondary Curriculum

i) To adopt a competency-based learning approach.

ii) To develop holistic education for personal and national development based on clear shared values.

iii) To develop key skills which are essential to work, life and promote life-long learning.

iv) To adopt an integrated approach to learning that develops the ability of learners to apply learning.

v) To improve on assessments by incorporating school-based assessment into End of Cycle Assessment.

vi) To emphasise learner's participation through engagement with the community.

vii) To prepare learners for further education.

1.11 Rationale for Teaching Woodwork at Advanced Level

The Advanced Level Woodwork syllabus aims to:

i) Equip learners with valuable practical skills in using hand tools and portable power tools, which can be directly applied in diverse engineering trades and professions.

ii) Provide a foundation for careers in carpentry, furniture making and other related fields.

iii) Preserve traditional woodworking techniques and cultural heritage, passing on valuable knowledge to future generations.

iv) Prepare learners to compete in global markets by equipping them with internationally recognised skills.

1.12 Subject Overview

The areas of study have been re-organised within the syllabus to come up with the adapted version. The subject areas of study are;

i) **Woodworking Basics:** These are the essential skills and knowledge needed to successfully complete woodworking projects. They encompass understanding timber properties and woodworking processes, following safety protocols during timber processing, and applying various wood finishes to enhance and protect the final product.

ii) **Design Fundamentals:** This involves understanding and applying fundamental design principles to develop initial concepts based on specific design requirements. It includes selecting suitable materials and utilising design techniques to create wood products. Learners engage in all stages of the design process, from conducting research and generating ideas through sketches to producing detailed drawings, creating prototypes, refining designs and finalising the product.

iii) **Wood working practices**. These practices entail the various methods, techniques and skills used to shape, join and finish wood to create both functional and decorative items. These practices are essential to a range of woodworking projects, from furniture making to cabinetry.

Practical aspect:

Learners should be able to;

i) Apply necessary safety precautions while working with tools, machinery, and materials.

ii) Safely and effectively use a range of woodworking tools and equipment, both hand and power tools to produce furniture.

iii) Select and apply appropriate joinery techniques for different projects.

1.13 Time Allocation

The learners shall be engaged for eight (8) periods per week from senior five to senior six.

1.14 Suggested Approaches to Teaching and Learning Woodwork

The suggested approaches enhance learning and empower teachers to support learners as they prepare for assessments. This will necessitate teachers to work alongside learners to guide, support and supervise them as they progress through the research process. These approaches include;

i) Inquiry-based learning: learners are encouraged to investigate through research directed by their interest and solve problems through series of questions and scenarios enhancing critical thinking, communication and research skills.

ii) Experiential learning: learners actively participate in hands-on experiences during research and learn through reflecting upon what they are doing which leads to development of reflective skills.

iii) Problem and project-based learning: learners find solutions to problems through their experience in research and projects. This leads to development of critical thinking, social and research skills.

iv) Case-based learning: learners refer to real world scenarios to discuss and analyse them which enable them to develop critical thinking, analytical and research skills.

v) Discovery learning: learners construct their own knowledge through active participation, exploration and inquiry which encourages them to critically think, ask questions and hypothesize through research.

1.15 Program Planner

Class/Term	Topic	Sub Topic	Period
Senior Five Term 1	1 Workshop Layout and Safety	1.1 Workshop Layout 1.2 Safety observation	l6
	2 Timber Technology	2.1 Tree Structure and Properties of Timber	08
		2.2 Conversion of Logs	12
		2.3 Timber Seasoning	08
		2.4 Timber Defects	08
		2.5 Diseases and Pests	08
Senior Five Term 2	3 Timber Technology	3.1 Timber Preservation	08
		3.2 Manufactured Boards	10
	4 Design and Drawing	4.1 Principles and Elements of Design in Wood Work 4.2 Isometric and Orthographic Projection 4.3 Working Drawings	32
	5 Carcase Construction	5.1 Box Constructions	30
Senior Five Term 3	6 Carcase construction	6.1 Box Constructions	36
	7 Domestic and Public furniture	7.1 Design Specifications 7.2 Construction of Domestic and Public furniture	44
Senior Six Term 1	8 Fixtures and fittings	8.1 Design Specifications 8.2 Construction of Domestic and Public furniture	80
Senior Six Term 2	9 Window and Door construction	9.1 Door and frame Designing 9.2 Door and frame construction	80
Senior Six Term 3	10 Window and Door construction	10.1 Door and frame Designing 10.2 Door and frame construction	48

1.16 Note to users:

Each topic has a competency, which is a broad statement that brings out what the learner is expected to do at the end of the topic. The competency is broken down into learning outcomes, for which suggested learning activities and sample assessment strategies are developed as represented in the three columns below.

Learning Outcomes	Suggested Learning Activities	Sample Assessment Strategy
A statement of the knowledge, understanding, skills, generic skills, values, and attitudes expected to be learned by the end of the topic. Hence each learning outcome is coded with some of these as; **k,u,s,gs and v/a** for emphasis to the teacher on what to consider during the lesson.	The sort of hands and minds on engagements, which enable the learner to achieve the learning outcome including the generic skills and values. They are designed to enable learners to Discover, Explain, Apply and Analyse (**DEAA**) as they participate in knowledge construction.	Opportunities for assessment within the learning process that is, during and after the lesson.

The learning activities and assessment strategies in the syllabus are "suggested" and "samples" respectively and not exhaustive. The Teacher is encouraged to develop more learning activities and assessment strategies that are based on the learning outcomes. In addition, the teacher is free to customise the suggested learning activities to make them suitable for their respective learning environments and for learners with Special Educational Needs (SEN).

2.0 DETAILED SYLLABUS

Senior Five Term 1

TOPIC 1: Workshop Lay Out and Safety

Duration: 16 Periods

Competency: The learner lays out the workshop and observes safety precautions by organising the workshop and mitigating potential risks to ensure a productive and safe working environment.

Learning Outcomes The learner should be able to:	**Suggested Learning Activities**	**Sample Assessment Strategies**
a) organise a wood workshop to promote productivity in the workspace. (k, u, s, v/a, gs)	a) Learners in groups, brainstorm the justification for the arrangement of their work space (classroom, bedroom, kitchen, laboratories, wood workshop etc). b) Learners in a jig-saw activity, explore resources such as wood workshops and video/textbook extracts to analyse the design and arrangement of a work space. They then design (sketch, model, or simulate) their own ideal wood workshop layout and display for self-critiquing.	a) Observe the learners' critical thinking skills while they create a workshop layout, focusing on their ability to: i) Break down complex problems into manageable parts, such as prioritising which tools and equipment are essential for the layout. ii) Establish logical relationships between available tools, materials and the placement of products. b) Probe learners to: i) Justify the best positions for the various items in the workshop, such as materials, machines, tools, finished products, etc. ii) Maximize workflow efficiency. c) Assess learners' workshop layout focusing on logical positioning of; i) Tools ii) Machines iii) Materials iv) Products. v) Space utilisation
b) implement safety precautions in the workshop to	a) In a jigsaw activity, learners explore the wood workshop and textbook/video extracts to analyse	a) Observe the learners critical thinking skills as they explore workshop safety, focusing on their ability to:

prevent accidents, prolong tool lifespan and protect the environment. (k, u, v/a, gs)	workshop safety (machine/tools, personal safety, material handling etc) and hazards (noise, dust, fire, electric faults etc). Learners create posters highlighting key safety rules and display them in the workshop for self-critiquing.	i) Generate imaginative ideas to address safety concerns and identify potential workshop hazards. ii) Identify unsafe practices, anticipate risks, and respond effectively to emergencies. b) Probe leaners to ensure that they: i) Maintain order, and strictly adhere to workshop rules. ii) Consistently use protective gear. iii) Assess and mitigate potential risks. c) Evaluate learners' posters, focusing on how they addressed: i) The use of personal protective equipment (PPE). ii) The proper use of tools. iii) The appropriate storage of materials. iv) The effective management of workshop hazards.

TOPIC 2: Timber Technology

Duration: 44 Periods

Competency: Learner processes timber by converting raw logs into usable wood products for construction, furniture making, and other industries.

Learning Outcomes The learner should be able to:	**Suggested Learning Activities**	**Sample Assessment Strategies**
a) produce timber in sectional sizes for specific woodworking requirements. (k, u, v, s, gs)	a) Learners in groups create a mind map on a tree, exploring different tree types, their characteristics (e.g., leaf type, height, habitat), and classifying them (e.g., deciduous vs ever green, angiosperm vs gymnosperms). They will expand the mind map to include timber properties and present their findings. b) Learners in groups visit a timber market to study and document various timber sizes and the methods used to obtain them from logs (conversion). They then reconvene in a plenary session to share and discuss their findings. c) Working in groups, learners demonstrate timber conversion techniques (through and through and tangential) using wood waste pieces and simple hand tools such as tape measures, hand saws and bench vices. The activity culminates in mini-exhibition showcasing their work.	a) Observe the learners' critical thinking skills as they produce timber in sectional sizes, focusing on their ability to: i) Identify load-bearing requirements, aesthetic considerations, or environmental factors that influence the appropriate timber size. ii) Analyse timber materials by assessing their properties. b) Dialogue with learners on: i) Potential applications of timber market sizes. ii) The methods of converting timber to meet specific requirements. iii) Properties of converted timber such as density, grain pattern, and moisture content c) Evaluate the learners' converted logs based on: i) The sizes achieved during cutting. ii) The alignment between the intended purpose of the wood article and the conversion method used.

b) season timber to stabilise it for woodworking construction (k, u, s, v/a, gs)	a) Learners in groups, take site visits or utilise textbook/video extracts and through a round robin activity, share and refine ideas on timber seasoning, its applications and methods of seasoning. In a plenary learners present their findings. b) Learners work in pairs to create and demonstrate a model setup for natural or artificial timber seasoning showcasing the process, equipment and techniques involved, then present their setup to the class for critique.	a) Observe learners' ability to take ownership of their learning while presenting their findings on timber seasoning observing: i) Their ability to clearly express their understanding of the extracts and effectively communicate ideas to others. ii) Work individually with persistence to make the models of the seasoning setup. b) Dialogue with learners on; i) Why timber seasoning is carried out. ii) Comparison between the different methods of timber seasoning. c) Assess the learners' seasoning setup based on; i) Arrangement of the different sizes of timber. ii) Stacking of the timber pieces. iii) Treating ends of timber pieces. Etc.
c) analyse common timber defects to ensure its efficient use. (k, u, s, v/a, gs)	a) In a guided discovery approach, learners work in groups to analyse extracts from textbooks or videos, for causes, types and classifications of natural and artificial defects. They then share their findings during a plenary session. b) In groups, learners survey their environment/ workshop identify and examine timber products or boards with defects and suggest possible remedies. They make notes and present their findings.	a) Observe learners' ability to collaborate while presenting their findings on timber defects with emphasis on their ability to; i) Clearly communicate their understanding of types and classification of timber defects to others. b) Probe learners about: i) Causes of timber defects. ii) Remedies of timber defects. c) Assess the learners written work on timber defects: i) Clear explanation on causes of defects. ii) Proposed remedies and solutions to defects. iii) Understanding effects of timber defects.

d) apply preservatives to protect timber from diseases and pest attacks, ensuring its durability." (k, u, s, v/a, gs)	a) In a guided discovery, learners in groups identify and discuss common diseases and pests that attack timber. Then present their findings to the class. b) Using inquiry-based approach, learners identify wooden objects or products affected by diseases and pests, suggest ways of handling the affected timber and how to prevent it from attacking sound timber. They make notes and present in class for discussion.	a) Observe learners' problem-solving skills as they apply preservatives based on their ability to: i) Collaborate with others to identify the diseases and pests that attack wood and develop solutions. ii) Explore alternative solutions of preventing attack by pests and diseases in wood. b) Probe learners to: i) Identify the pests and diseases that attack timber. ii) Generate remedies or solutions on attacked timber. iii) Suggest ways of preventing the attack. c) Assess learners written work on timber pests and diseases attack focusing on: i) Examples of diseases and pests that attack timber. ii) How they treat attacked timber. iii) How to prevent timber from the attack of pests and diseases.

Senior Five Term 2

TOPIC 3: Timber Technology

Duration: 18 Periods

Competency: The learner processes timber by converting raw logs into usable wood products for construction, furniture making and other industrial products.

Learning Outcomes The learner should be able to:	Suggested Learning Activities	Sample Assessment Strategies
a) apply preservatives to prevent disease and pest attacks in timber for its durability. (k, u, s, v/a, gs)	a) Using the jig saw method, learners work in groups, utilising extracts from textbooks or videos to explore timber preservatives and methods of application, make a writeup and present in a plenary. b) Leaners in groups through guided discovery, practice the application of a selected preservative on a timber piece using the different methods (brushing, spraying, deeping, etc)	a) Observe learners' ability to collaborate as they apply preservatives on timber, focusing on their ability to: i) Contribute equally towards the task. ii) Work together to address issues that may come up during the process. b) Probe learners to: i) Classify preservatives. ii) Identify requirements of an ideal preservative. iii) Understand the methods of applying preservatives. iv) Observe personal and environmental safety. c) Assess the learners preserved timber piece with regard to: i) Even application of the preservative.
b) analyse manufactured boards used in the community for specific woodworking needs. (k, u, s, v/a, gs)	a) Learners in groups visit workshops and use textbook/video extracts to explore the production of common manufactured boards. They note and discuss their findings with the class. b) Using the jigsaw method, learners work in groups to establish appropriate ways of creating a mood board for manufactured boards with images, sketches or real materials, highlighting their suitability for specific	a) Observe learners' Critical thinking skills as they identify manufactured boards, basing on their ability to: i) Understand the specific material for woodworking needs within the community. ii) Determine which boards are suitable for specific woodworking tasks. b) Probe learners to: i) Compare the solid timber to manufactured timber boards. c) Assess the learner's mood boards focusing on: i) Types of manufactured boards (soft boards, medium density fibre (mdf)

	projects. They create and display their mood boards and engage in a gallery walk for critiquing.	board, laminated boards, chip board, plywood, etc). ii) Justification of manufactured boards suitability for use in specific works.

TOPIC 4: Design and Drawing

Duration: 32 Periods

Competency: The learner creates detailed design drawings by conceptualising ideas to effectively guide the woodworking process and ensure the efficient use of materials.

Learning Outcomes The learner should be able to:	**Suggested Learning Activities**	**Sample Assessment Strategies**
a) create working drawings of timber articles to guide the making process. (k, u, s, a, gs)	a) In groups, learners review and discuss the principles of drawing figures in isometric and orthographic (first and third angle) projection and demonstrate their understanding on sketches of wooden objects. (In isometric and orthographic projection.) They discuss and present their drawings to the class. b) Learners individually, use appropriate scales to make drawings in isometric and orthographic projections of wooden products. They later display their work to the class for feedback. c) Learners recount and discuss the types of joints (lengthening, widening and angle/corner) and their application. They individually draw them to scale in isometric and orthographic projection, display their work in the class for feedback.	a) Observe the learner's creativity and innovation as they develop working drawings for cabinets focusing on their ability to: i) Assess design specifications to create working drawings. ii) Derive inspiration from existing drawings and orientations to produce unique and original representations. iii) Find solutions to challenges, such as translating 3D objects into 2D representations. b) Probe learners to: i) Bring out the purpose and function of the article. ii) To select appropriate material based on specifications. iii) To select appropriate joints. iv) Apply the principles of design. c) Evaluate learners' working drawing with regard to: i) Proportionality ii) Accuracy of views iii) Material list. iv) Proper dimensioning. v) Neatness.

b) transform the client's needs analysis into functional working drawings.	a) In groups, learners simulate a client and conduct a needs analysis within the school community to establish design specifications for a selected product (e.g., bookshelf, kitchen unit, stool, table, TV unit etc). With sketches document the specifications and present in a plenary. b) Individually learners generate ideas for the product identified, design and create sketches or line diagrams of the proposed product. They then review and discuss each other's line diagrams and later produce scaled isometric and orthographic drawings within their group. Display the drawings to the entire class and in a gallery walk, critique one another's work.	a) Observe the learner's problem-solving skills as they transform the client's needs analysis into functional working drawings focusing on their ability to: i) Analyse the client's requirements to demonstrate a drawing that meets his ideas. ii) Develop innovative design solutions that address the client's needs. iii) Select the most appropriate design approaches and materials to meet the clients objectives. b) Probe learners to: i) Bring out the purpose and function of the article. ii) To select appropriate material based on specifications. iii) To select appropriate joints. iv) Apply the principles of design. c) Evaluate learners' working drawing with regard to: i) Proportionality ii) Accuracy of views iii) Material list. iv) Proper dimensioning. v) Neatness.

TOPIC 5: Carcase Construction.

Duration: 30 Periods

Competency: The learner constructs carcase products that address community needs through woodworking fabrication.

Learning Outcome The learner should be able to:	Suggested Learning Activities	Sample Assessment Strategies
a) design carcase products to guide the making process. (k, u, s, v/a, gs)	a) Learners in groups create a mind map on a carcase construction, exploring their different forms, materials used (Manufactured board, solid wood, ironmonger, finishes, adhesives etc.), joints and tools used (e.g. cutting tools, measuring tools, shaping tools etc.) and present their findings in class. b) In groups learners identify a need within the school which can be solved by a carcase product, make its working drawings and develop a materials list. Display in a gallery walk for the class to critique. c) In pairs learners engage in a demonstration activity to practice making joints (e.g., butt joints, dado joints, rabbet joints, and dowel joints) related to carcase construction.	a) Observe the learner's creativity and innovation skills as they design carcase products focusing on their ability to: i) Propose unique ideas for the design of carcase products. ii) Adapt to new ideas or changes in the design process. b) Probe learners to: i) Identify a need in a community that wood carcase constructions can solve. ii) Explore various jointing techniques for joining the product parts. iii) Select appropriate materials. c) Evaluate learners' working drawings and joints made based on: i) Accuracy of drawn views ii) Materials list iii) Proper dimensions iv) Assembling of joints v) Accuracy of joints

Senior Five Term 3

TOPIC 6: Carcase Construction

Duration: 36 Periods

Competency: The learner constructs carcase products that address community needs through woodworking fabrication.

Learning Outcome The learner should be able to:	Suggested Learning Activities	Sample Assessment Strategies
a) make carcase products that ensure stability and durability in wooden items. (k, u, s, v/a, gs)	a) In a project-based learning activity, students collaborate in groups to identify a need within their community that can be solved by carcase construction (box or shelve), develop a potential solution, create detailed working drawings, and compile a material list. They then prepare materials, create joints, assemble and finish the articles using the necessary tools. They showcase their work in a class exhibition. **NB:** learners document the process in a portfolio and participate in peer critiquing at every stage.	a) Observe the learner's problem-solving skills as they make carcase products basing on their ability to: i) Demonstrate awareness of the community's requirements and context. ii) Adapt to new ideas or changes design process. b) Probe learners to: i) Ensure proper preparation of materials. ii) Make right choices for joint and finishing. iii) Ensure personal and environmental safety. c) Evaluate learners' project product for: i) Squareness of corners. ii) Arrangement of different members of the product. iii) Finishing.

TOPIC 7: Domestic and Public furniture

Duration: 44 Periods

Competency: The learner constructs wooden fixtures and fittings for space optimization in public and domestic use through woodworking fabrication.

Learning Outcome The learner should be able to:	**Suggested Learning Activities**	**Sample Assessment Strategies**
a) design wooden articles for domestic and public use to guide the making process. (k, u, s, v/a, gs)	a) Learners in groups explore extracts from text books, videos or pictures to read blueprints and technical drawings for wood constructions to identify wood framing techniques, principles of load distribution and structural integrity. They explore alternative methods for fixing a top to the frame and other joinery techniques. Compile their findings in a portfolio document and make presentations in class. b) In groups, learners use guided discovery to conduct a needs analysis, generate material lists (e.g. wood types, fasteners, adhesives and finishes used) and establish design specifications for a selected product (e.g., chair, table, stool, etc). They document and present to the class. c) Learners in groups brainstorm and generate ideas for the product's design, after which each learner individually creates a sketch or line diagram of the product. Then discuss each other's line diagrams to produce working drawings. The drawings are displayed in a gallery walk, and participants critique one another's work.	a) Observe the learner's creativity as they produce designs of wooden articles for domestic and public use focusing on their ability to: i) Assess design specifications to create sketches. ii) Interact with one another while designing framed articles. b) Probe learners to: i) Properly interpret specifications and make meaningful sketches. ii) Generate material lists. c) Evaluate learners' drawing focusing on: i) Sizes of members. ii) Choice of joints.

b) make domestic and public woodwork articles for community use. (k, u, s, v/a, gs)	a) Using a case study, learners in groups, observe a finished product (stool, chair and table), document a discussed cutting list, appropriate joints and finish. The findings are put in a portfolio and presented to the class to critique. b) Learners in pairs follow the portfolio to make a product. (e.g. stool, chair or table) and display their work in a gallery walk for critiquing in class.	a) Observe the learner's creativity skills as they collaborate to make domestic and public woodwork articles focusing on their ability to: i) Share ideas freely, listen to each other, while assessing the finished product to find out the joinery techniques used. ii) Interact with one another while making framed woodwork articles. b) Dialogue with learners to: i) Select appropriate joints. ii) Choose the appropriate tools. iii) Observe safety precautions. c) Evaluate learners' finished product focusing on: i) The arrangement of different members of the product. ii) Squareness of corners iii) finishing

Senior Six Term 1

TOPIC 8: Fixtures and Fittings

Duration: 80 Periods

Competency: The learner constructs wooden fixtures and fittings for space optimisation in public and domestic use through woodworking fabrication.

Learning Outcome The learner should be able to:	**Suggested Learning Activities**	**Sample Assessment Strategies**
a) make wooden fixtures and fittings for domestic and public use. (k, u, s, v/a, gs)	a) Using a case study, learners in groups, observe a finished product (e.g. curtain boxes, picture rails, cabinets, wardrobes, side board, wall units and drawers etc.) and discuss how to make a material list, apply the appropriate joints and the finish. They then write their findings in a portfolio document for the class to critique. b) In a guided discovery learners in groups identify a product and using waste pieces in the workshop and the knowledge of material listing demonstrate how to make fixtures and fittings of an article. They display and critique each other's work.	a) Observe the learner's creativity as they make wooden fixtures and fittings focusing on their ability to: i) Share ideas freely, listen to each other, while assessing the finished product to find out the joinery techniques used. ii) Interact with one another while making framed woodwork articles. b) Probe learners to: i) Select suitable joints ii) Ensure Safety while working on the product. c) Evaluate learners' finished product focusing on: i) Proper dimensioning. ii) Accuracy. iii) Arrangement of different members of the product.

Senior Six Term 2

TOPIC 9: Window and Door Construction

Duration: 80 Periods

Competency: The learner constructs windows and doors for functional openings through craftsmanship and woodworking fabrication.

Learning Outcome The learner should be able to:	Suggested Learning Activities	Sample Assessment Strategies
a) make wooden windows, door shutters, frames and linings for structural furniture openings. (k, u, s, v/a, gs)	a) Using a guided discovery method learner in groups, utilise extracts from textbooks, pictures, videos and their environment to identify the different types of wooden doors, door frame/lining, windows, window frame/lining and their application, they make notes and present in class for discussion. b) In groups, learners make workshop visits and observe the making process of windows, door shutters and frames/linings, taking note of every stage. They then recount and discuss before presenting their findings in a plenary. c) Learners in groups brainstorm and generate ideas for doors and door frames/lining designs, after which each learner individually creates sketches or line diagrams. Then discuss each other's line diagrams to produce scaled isometric and orthographic drawings. The completed drawings are displayed in a gallery walk, where participants critique each other's work. d) Learners in groups create materials lists and make door shutters and frames/linings. They display their work in a gallery walk for critiquing in workshop.	a) Observe the learner's creativity as they make wooden doors and frames focusing on their ability to: i) Propose unique ideas for the design of doors. ii) Adapt to new ideas or changes in the door making process. b) Probe learners to: i) Establish the proper positioning of doors and windows. ii) Ensure safety precautions when working. c) Evaluate learners' drawings and finished product focusing on: i) Proper dimensioning. ii) Accuracy. iii) Arrangement of different members. iv) Projection of different views.

Senior Six Term 3

TOPIC 10: Window and Door Construction

Duration: 48 Periods

Competency: The learner constructs windows and doors for functional openings through craftsmanship and woodworking fabrication.

Learning Outcome The learner should be able to:	Suggested Learning Activities	Sample Assessment Strategies
a) make wooden windows, door shutters, frames, and linings for structural furniture openings. (k, u, s, v/a, gs)	a) Learners in groups brainstorm and generate ideas for windows and window frames/lining designs, after which each learner individually creates a sketch or line diagram. Then discuss each other's line diagrams and produce scaled isometric and orthographic drawings. The completed drawings are displayed in a gallery walk, where participants critique one another's work. b) Learners in groups make window shutters and frames/linings and display their work in a gallery walk for critiquing in workshop.	a) Observe the learner's creativity as they collaborate to make wooden windows and frames focusing on their ability to: i) Propose unique ideas for the design of windows. ii) Adapt new ideas or changes in the making process of windows. b) Probe learners to: i) Propose suitable locations of the window. ii) Show how to fix the windows. iii) Apply joints. c) Evaluate learners' drawings and finished product focusing on: i) Proper dimensioning. ii) Accuracy. iii) Arrangement of different members. iv) Projection of different views.
b) integrate the window and door shutters into the frames to finalize the product for functional openings. (k, u, s, v/a, gs)	a) In groups, learners utilise text books, pictures and videos to explore the different iron mongery (Hinges, screws, locks, tower bolts) used to fix door and window shutters to frames and lining. They document a portfolio of their findings and discuss for the rest to critique. b) Using guided discovery learners in groups demonstrate how to fix a	a) Observe the learners' critical thinking skills as they carry on the process of fixing doors and window shutters to frames/lining focusing on their ability to: i) Identify the appropriate way of fixing. ii) Analyse the door and window by assessing the hinging and locking side. b) Dialogue with learners to: i) Ensure they place doors and windows to fit the frame.

	door in a frame. They display their work for critiquing in class.	ii) Ensure the proper use of tools c) Evaluate learner's complete unit of doors and windows focusing on: i) Recess made. ii) Swing of the door and window shutter. iii) Proper clearance. iv) Cleaning the working area

3.0 ASSESSMENT

3.1 Assessing Wood work

The adapted curriculum sets new expectations for learning, with a shift from Objectives to Learning Outcomes that focus mainly on the application of knowledge and deeper learning that leads to the acquisition of skills. These Learning Outcomes require a different approach to assessment. The "Learning Outcomes" in the syllabi are set out in terms of Knowledge, Understanding, Skills, Values and Attitudes. This is what is referred to by the letters k, u, s v & a.

It is not possible to assess attitudes in the same way as knowledge, understanding and skills because they are more personal and variable, and are long-term aspirations. This does not mean that values and attitudes are not important or cannot be assessed. They too can be assessed but not easily done through tests and examinations. Values and attitudes can be assessed over a period of time through observing and having interactions with the learner.

So, this section focuses on knowledge, understanding and skills. Each has its own implications for learning and assessment.

To assess knowledge and its application, understanding and skills, we need to look for different things. Knowledge can be assessed to some extent through written tests, but the assessment of skills, application of what is learnt and deeper understanding requires different approaches. Because of this, the role of the teacher in assessment becomes much more important.

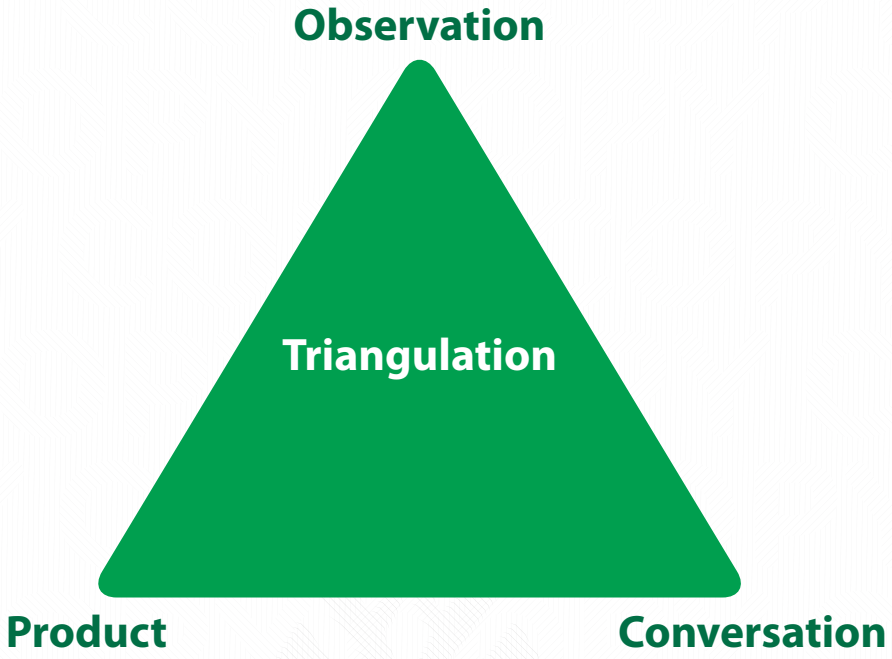
3.2 Formative Assessment

In this adapted curriculum, the teacher's assessment role is not only to write tests for learners, but to make professional judgements about learners' learning in the course of the normal teaching and learning process. The professional judgement is about how far the learner achieves the Learning Outcomes that are set out in this syllabus. To make these judgements the teacher needs to look at how well the learners are performing in terms of each Learning Outcome.

The formative assessment opportunities occur in three forms. They can be done through:

a. **Observation** – watching learners working (good for assessing skills, values and attitudes)
b. **Conversation** – asking questions and talking to learners (good for assessing knowledge and understanding)
c. **Product** – appraising the learner's work (writing, report, translation, calculation, presentation, map, diagram, model, drawing, painting etc). In this context, a "product" is seen as something physical and permanent that the teacher can keep and look at, not something that the learner says.

When all three are used, the information from any one can be checked against the other two forms of assessment opportunity (e.g. evidence from "observation" can be checked against evidence from "conversation" and "product"). This is often referred to as "triangulation



3.3 Assessing Generic Skills

The Generic Skills have been built into the syllabi and are part of the Learning Outcomes. It is therefore not necessary to assess them separately. It is the increasingly complex context of the subject content that provides progression in the Generic Skills and so they are assessed as part of the subject Learning Outcomes. Assessing generic skills is done with the help of **an observation checklist and scoring rubric**.

3.4 Assessing Values/Attitudes

It is not possible to assess values and attitudes in the same way as knowledge, understanding and skills because they are more personal and variable and are long-term aspirations. This does not mean that attitudes are not important. It means that we must value things that we cannot easily assess through tests and examination. However, values and attitudes can be assessed over a long period of time through observing and interactions.

3.5 Assessment of Project-based Learning

Project-based learning is a teaching method in which learners or participants gain knowledge and skills by engaging for an extended period of time to investigate and respond to an authentic challenge. The task must have a driving question and it involves sustained inquiry.

Project-based learning is assessed using a rubric and an observation checklist.

3.6 Examinations

There will be only one school based summative assessment at the end of the year. There will no longer be examinations or tests set at the beginning and end of every term. Instead, there will be a summing up of on-going teacher assessments made in the context of learning through end of topic scenario-based tasks (Activities of Integration). The learners will also be subjected to the end of cycle assessment for certification.

3.7 Record keeping

In competency-based learning, accurate and comprehensive record keeping is crucial to track learners' progress and achievements. Therefore, the teacher and school **must keep accurate records about learners' achievement.**

Various assessment tools and strategies are employed to capture learners' demonstration of abilities and achievements, including observation checklists, rubrics, and scoring grids. These tools provide a holistic picture of learners' strengths, weaknesses, and areas for improvement.

The collected data and evidence from these assessments are correctly recorded and maintained in learners' files, portfolios and anecdotal notes.

GLOSSARY OF KEY TERMS

Term	Definition
competency curriculum	One in which learners develop the ability to apply their learning with confidence in a range of situations.
differentiation	The design or adaptation of learning experiences to suit an individual learner's needs, strengths, preferences, and abilities.
formative assessment	The process of judging a learner's performance, by interpreting the responses to tasks, in order to gauge progress and inform subsequent learning steps.
generic skills	Skills which are deployed in all subjects, and which enhance the learning of those subjects. These skills also equip a learner for work and for life.
inclusion	An approach to planning learning experiences which allows each student to feel confident, respected and safe and equipped to learn at his or her full potential.
learning outcome	A statement which specifies what the learner should know, understand, or be able to do within a particular aspect of a subject.
process skill	A capability acquired by following the programme of study in a particular Learning Area; enables a learner to apply the knowledge and understanding of the Learning Area.
sample assessment activity	An activity which gives a learner the opportunity to show the extent to which he/she has achieved the Learning Outcomes. This is usually part of the normal teaching and learning process, and not something extra at the end of a topic.
suggested learning activity	An aspect of the normal teaching and learning process that will enable a formative assessment to be made.

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