National Curriculum of Pakistan
2022-23

TECHNICAL EDUCATION

WOOD WORK

Grades 9-10

NATIONAL CURRICULUM COUNCIL SECRETARIAT
MINISTRY OF FEDERAL EDUCATION AND
PROFESSIONAL TRAINING, ISLAMABAD
GOVERNMENT OF PAKISTAN

بسم الله الرحمن الرحيم

National Curriculum of Pakistan
2022-23

TECHNICAL EDUCATION

WOOD WORK

Grades 9-10

NATIONAL CURRICULUM COUNCIL SECRETARIAT
MINISTRY OF FEDERAL EDUCATION AND
PROFESSIONAL TRAINING, ISLAMABAD
GOVERNMENT OF PAKISTAN

It is with great pride that we, at the National Curriculum Council Secretariat, present the first core curriculum in Pakistan's 75-year history. Consistent with the right to education guaranteed by Article 25-A of our Constitution, the National Curriculum of Pakistan (2022-23) aspires to equip every child with the necessary tools required to thrive in and adapt to an ever-evolving globalized world.

The National Curriculum is in line with international benchmarks, yet sensitive to the economic, religious, and social needs of young scholars across Pakistan. As such, the National Curriculum aims to shift classroom instruction from rote learning to concept-based learning.

Concept-based learning permeates all aspects of the National Curriculum, aligning textbooks, teaching, classroom practice, and assessments to ensure compliance with contemplated student learning outcomes. Drawing on a rich tapestry of critical thinking exercises, students will acquire the confidence to embark on a journey of lifelong learning. They will further be able to acknowledge their weaknesses and develop an eagerness to build upon their strengths.

The National Curriculum was developed through a nationwide consultative process involving a wide range of stakeholders, including curriculum experts from the public, private, and non-governmental sectors. Representatives from provincial education departments, textbook boards, assessment departments, teacher training departments, *deeni madaris*, public and private publishers, private schools, and private school associations all contributed their expertise to ensure that the National Curriculum could meet the needs of all Pakistani students.

The experiences and collective wisdom of these diverse stakeholders enrich the National Curriculum, fostering the core, nation-building values of inclusion, harmony, and peace, making the National Curriculum truly representative of our nation's educational aspirations and diversity.

I take this opportunity to thank all stakeholders, including students, teachers, and parents who contributed to developing the National Curriculum of Pakistan (2022-23)

Dr. Mariam Chughtai
Director
National Curriculum Council Secretariat
Ministry of Federal Education and Professional Training

Wood Work and Furniture

Grades 9-10

Progression Grid

Domain A: Introduction to Trees and Safety Precautions

Standard: Acquire essential woodworking skills, demonstrate an awareness of safety protocols, and develop the ability to identify various trees, encompassing a comprehensive foundation in woodworking and safety practices.

Grade 9	**Grade 10**
Benchmark I: Students will be able to explain the layout of the workshop, and use and apply emergency protocols and safety procedures effectively.	
Student Learning Outcomes	
[SLO:WWF-09-A-01]: Students will describe the layout of a woodworking workshop, highlighting the purpose of different workstations	[SLO: WWF-10-A-01]: Students will demonstrate emergency protocols and proficiency in various safety procedures.
[SLO: WWF-09-A-02]:	[SLO:WWF-10-A-02]:

Students will demonstrate the correct usage of safety protocols and personal protective equipment (PPE) in the woodworking workshop	Students will demonstrate execution of advanced joints (dovetail, mortise and tenon, butt joint) through practical application.
Benchmark II: Students will identify and differentiate between different types of trees/wood and demonstrate the basic knowledge of Joinery and hand tools	
Student Learning Outcomes	
[SLO:WWF-09-A-03]: Students will identify common types of trees based on visual and contextual characteristics.	[SLO:WWF-10-A-03]: Students will independently develop and present more complex project sketches and plans, integrating multiple woodworking techniques (Like wood joinery, wood turning, veneering, etc)
[SLO:WWF-09-A-04]: Students will explain the anatomy of trees and differentiate between types of woods according to their characteristics and applications.	
[SLO:WWF-09-A-05]: Students will demonstrate the proper use of basic hand tools (tape measure, square, hand saws, chisels, hammers) with adherence to safety precautions.	
[SLO:WWF-09-A-06]:	

Students will demonstrate use of power tools (drill, jigsaw, circular saw) while following safety guidelines.	
[SLO:WWF-09-A-07]: Students will explain the importance and usage of basic joints (dovetail, mortise and tenon, butt joint) through hands-on practice.	
[SLO:WWF-09-A-08]: Students will create simple project sketches and plans that incorporate learned woodworking techniques.	

Domain B: Wood Seasoning, Furnishing and coloring (Wood Defects, Wood Seasoning, wood furnishing and coloring

Standard : Explain the properties and types of wood defects, demonstrate knowledge of wood seasoning processes and their importance and apply techniques for wood furnishing and coloring.

Grade 9	**Grade 10**
Benchmark I: Identify and classify common and advanced wood defects such as knots, shakes, decay, insect damage and fungal infections based on their impact on structural integrity and aesthetics.	
Student Learning Outcomes	

[SLO:WWF-09-B-01]: Student will identify and categorize at least three common wood defects such as knots, shakes, decay and propose basic remedies.	[SLO:WWF-10-B-01]: Students will evaluate advanced wood defects, such as insect damage and fungal infections.
[SLO:WWF-09-B-02]: Students will classify wood defects based on their impact on structural integrity and aesthetics, producing a comprehensive categorization chart or presentation.	[SLO:WWF-10-B-02]: Student will apply mitigation strategies to treat wood defects i.e. insect damage and fungal infections
Benchmark II: Explain the purpose and methods of air seasoning and kiln seasoning by comparing the advantages and disadvantages of air seasoning and kiln seasoning.	
Student Learning Outcomes	
[SLO:WWF-09-B-03]: Students will explain the purpose and methods of air seasoning and kiln seasoning, creating an informative presentation or report that highlights key differences.	[SLO:WWF-10-B-03]: Students will apply wood seasoning methods (air seasoning and kiln seasoning) and analyze the impact of these seasoning methods on wood properties
[SLO:WWF-09-B-04]: Students will compare and list down the advantages and disadvantages of air seasoning and kiln seasoning.	[SLO:WWF-10-B-04]: Students will apply advanced wood furnishing techniques, including staining and varnishing, by completing a furnishing project that demonstrates mastery of these techniques.

Benchmark III: Student will demonstrate basic and advanced wood furnishing techniques such as sanding, polishing, staining and varnishing with practical application and hands-on projects.	
Student Learning Outcomes	
[SLO:WWF-09-B-05]: Students will demonstrate basic wood furnishing techniques such as sanding and polishing through hands on exercises.	[SLO:WWF-10-B-05]: Students will apply synthetic coloring agents and analyze their impact on wood aesthetics
Benchmark IV: Identify natural wood coloring methods and their effects on different wood types. Apply synthetic coloring agents and analyze their impact on wood aesthetics.	
Student Learning Outcomes	
[SLO:WWF-09-B-06]: Students will identify natural wood coloring methods and explain their effects on different wood types through practical demonstration	

Domain C: Wood Work and Furniture Tools

(Measuring and Marking Tools, Wood Saw/Cutting Tools, :Planes, Wood Chisels, and Gouges, Boring Tools (Bits, Drills, and Braces), Nails and Screws, Types of Screwdrivers and Scrapers, Hammers and Mallets, Files, Holding Tools, and Miscellaneous

1. Marking and measuring tools
2. Cutting tools
3. Planing tools
4. Boring tools
5. Fasteners tools
6. Screwdrivers and Scrapers
7. Striking tools
8. Files, Holding and miscellaneous tools

Standard : Develop comprehensive proficiency in woodworking by demonstrating proper usage of a range of tools. Demonstrate mastery in the safe and effective use of marking and measuring tools, cutting tools, planing tools, and boring tools, ensuring precision in woodworking projects. Safely identify and utilize striking tools, and apply advanced techniques with holding and miscellaneous tools to secure workpieces effectively.

Grade 9	**Grade 10**
Benchmark I: Students will identify and demonstrate the functions of common and advanced marking tools like rulers, squares, and calipers. They will showcase practical proficiency by accurately marking wood for diverse cuts and joints.	
Student Learning Outcomes	

[SLO:WWF-09-C-01]: Students will identify common woodworking measurement tools, including rulers, squares, and calipers and demonstrate their function through hands-on practice.	[SLO:WWF-10-C-01]: Students will identify advanced woodworking measurement tools, including calipers and dial indicators and demonstrate their function through hands-on practice.
[SLO:WWF-09-C-02]: Students will demonstrate proficiency by accurately marking wood for various cuts and joints using the identified measurement tools.	[SLO:WWF-10-C-02]: Students will assess the critical importance of precise measurements through hands-on techniques for various joinery applications.
[SLO:WWF-09-C-03]: Students will demonstrate use of tape measures and rulers, using proper measuring techniques for length, width, and thickness.	[SLO:WWF-10-C-03]: Students will apply their acquired measuring and marking skills in the construction of a small joinery project and demonstrate the proper use of measuring tools.
[SLO:WWF-09-C-04]: Students will practice use of pencils for accurate marking.	[SLO:WWF-10-C-04]: Students will apply advanced techniques, including dado and rabbet cuts, as well as execute bevel cuts with a circular saw.
[SLO:WWF-09-C-05]: Students will demonstrate use of marking gauges and identify their application in woodworking.	[SLO:WWF-10-C-05]: Students will identify and demonstrate the applications of specialty saws (scroll saw, coping saw, tenon saw) through hands-on practices.
[SLO:WWF-09-C-06]:	[SLO:WWF-10-C-06]:

Students will demonstrate marking wood for cuts and joinery, emphasizing precision and clarity in the marking process.	Students will apply learned sawing techniques in the creation of a small woodworking project, emphasizing precision and creativity.
Benchmark II: Students will identify various types of woodworking saws and their applications. They will adhere to safety guidelines and demonstrate proper use of different types of saws for wood-working projects using hands-on practical approach.	
Student Learning Outcomes	
[SLO:WWF-09-C-07]: Students will identify various woodworking saws, distinguishing their types and applications.	[SLO:WWF-10-C-07]: Students will demonstrate practical skills in edge planning for squaring and truing edges, utilizing different types of planes.
[SLO:WWF-09-C-08]: Students will demonstrate use of safety guidelines and proper precautions for different saws, fostering a safe working environment.	[SLO:WWF-10-C-08]: Students will demonstrate basic chiseling techniques for joinery (e.g., mortise and tenon) through hands-on practice in creating simple joints.
[SLO:WWF-09-C-09]: Students will identify and utilize different handsaws (rip saw, crosscut saw, coping saw)	[SLO:WWF-10-C-09]: Students will explore chiseling techniques for shaping wood, engaging in practical exercises to create chamfers and curves.
[SLO:WWF-09-C-10]: Students will demonstrate hands-on proficiency in executing crosscut and rip cuts using handsaws.	[SLO:WWF-10-C-10]:

	Students will apply their plane, chisel, and gouge skills to create a small project, emphasizing precision and creativity in carving and joinery.
[SLO:WWF-09-C-11]: Students will demonstrate the proper use of a circular saw and jigsaw for various woodworking applications.	[SLO:WWF-10-C-11]: Students will demonstrate the application of hand braces and auger bits in boring.
Benchmark III: Students will demonstrate skills through applications of various woodworking planes, chisels, and gouges. They will be able to identify different types, understand their applications, and demonstrate hands-on proficiency in executing surface planning, edge planning, basic chiseling techniques, carving and joinery projects.	
Student Learning Outcomes	
[SLO:WWF-09-C-12]: Students will distinguish between different types of planes, such as block plane, smoothing plane, and jack plane, explain their uses and applications.	
[SLO:WWF-09-C-13]: Students will identify the parts of a plane, explain their functions, and demonstrate the proper setup and maintenance procedures.	
[SLO:WWF-09-C-14]:	

Students will demonstrate applications of surface planning techniques with an emphasis on achieving smooth and flat surfaces.	
[SLO:WWF-09-C-14]: Students will differentiate between types of wood chisels (bench chisel, mortise chisel) and demonstrate their uses and applications.	
[SLO:WWF-09-C-15]: Students will discuss chisel anatomy, explain proper sharpening techniques, and participate in hands-on practice sessions.	
[SLO:WWF-09-C-16]: Students will identify different types of gouges (straight gouge, bent gouge) and demonstrate their uses and applications.	
[SLO:WWF-09-C-17]: Students will discuss the parts of a gouge, learn various carving techniques, and participate in hands-on practice with different gouges.	

Benchmark IV: Students will demonstrate proficiency in utilizing boring tools, including twist drills, auger bits, spade bits, hand drills, hand braces, and specialty bits (Forstner, spade), by explaining their purpose, practicing safety protocols, and executing various boring tasks.	
Student Learning Outcomes	
[SLO:WWF-09-C-18]: Students will distinguish between various boring tools (twist drills, auger bits, spade bits) and explain their purposes and applications.	
[SLO:WWF-09-C-19]: Students will demonstrate an understanding of safety protocols for boring tools like drills and braces	
[SLO:WWF-09-C-20]: Students will explain and demonstrate skills for twist drills and their role in woodworking, engaging in hands-on practice with different sizes of twist drills.	
[SLO:WWF-09-C-21]: Students will demonstrate proficiency in using hand drills for various boring tasks through guided exercises.	
[SLO:WWF-09-C-22]:	

Students will explain the purpose and role of auger bits in woodworking and practice their use with hand braces.	
	[SLO:WWF-10-C-08]: Students will apply their acquired boring tool skills to create a small woodworking project, emphasizing accuracy and the proper use of boring tools.
Benchmark V: Students will demonstrate mastery of fastener tools, including nails and screws, by understanding their types, safety measures, and applications.	
Students Learning Outcomes	
[SLO:WWF-09-C-23]: Students will distinguish between different types of nails(common, finishing, brad, and roofing nails) and screws(wood screws, machine screws, sheet metal screws), explaining their characteristics and when to use each type in woodworking projects.	
[SLO:WWF-09-C-24]:	

Students will demonstrate proper tool handling (Nails and Screws) and use of safety precautions to prevent injuries.	
[SLO:WWF-09-C-25]: Students will demonstrate proficiency in proper nailing techniques through guided practice, emphasizing accuracy and avoiding wood splits.	
[SLO:WWF-09-C-26]: Students will demonstrate proficiency in proper screwing techniques for creation of strong and secure joints.	[SLO:WWF-10-C-09]: Students will explain and demonstrate the application of joinery techniques involving nails and screws using advanced fastening methods for stronger joints.
	[SLO:WWF-10-C-10]: Students will analyze real-world case studies based on effective fastening techniques to enlist the advantages and disadvantages of using nails and screws in woodwork projects.
	[SLO:WWF-10-C-11]: Students will apply their acquired nail and screw skills to create a small woodworking project, emphasizing the selection of the right fastener for each application.
Benchmark VI: Students will demonstrate proficiency in use of screwdrivers and scrapers by explaining their types, anatomy, maintenance, and use of safety measures.	

Students Learning Outcomes	
[SLO:WWF-09-C-27]: Students will distinguish between various types of screwdrivers (flathead, Phillips, Torx, etc.) and explain their specific applications in woodworking	[SLO:WWF-10-C-12]: Students will identify specialty screwdrivers (precision, offset, ratcheting) and explain their uses in specific woodworking tasks
[SLO:WWF-09-C-28]: Students will identify parts of a screwdriver and demonstrate use of proper maintenance techniques for ensuring longevity and optimal performance.	
[SLO:WWF-09-C-29]: Students will demonstrate use of different types of screwdrivers using safety precautions through hands-on practice.	[SLO:WWF-10-C-13]: Students will demonstrate use of specialty screwdrivers (precision, offset, ratcheting) using safety precautions in wood work project/hands-on practical exercises.
[SLO:WWF-09-C-30]: Students will identify different types of scrapers (cabinet, card, curved) and demonstrate their use in woodworking projects through hands-on practice.	SLO:WWF-10-C-14:Students will demonstrate proficiency in using scrapers to remove finish and smooth surfaces to achieve a clean and polished result.
[SLO:WWF-09-C-31]: Students will discuss the importance of keeping scrapers sharp and participate in practical sessions on sharpening and maintaining scrapers.	[SLO:WWF-10-C-15]: Students will demonstrate advanced scraping techniques for fine woodworking and engage in hands-on exercises for intricate scraping tasks.

	[SLO:WWF-10-C-16]: Students will apply their acquired screwdriver and scraper skills to create a small woodworking project, emphasizing precision, finishing, and attention to detail.
Benchmark VII: Students will demonstrate application of hammers and mallets by explaining their types, anatomy, maintenance, and use of safety measures through application of skills in a woodworking project, to showcase precision, shaping, and joinery techniques.	
Students Learning Outcomes	
[SLO:WWF-09-C-32]: Students will distinguish between different types of hammers (claw hammer, ball-peen hammer, framing hammer, etc.) and explain their specific applications in woodworking.	[SLO:WWF-10-C-17]: Students will identify specialty hammers (rubber mallet, dead-blow hammer, sledgehammer) and explain their uses in specific wood working tasks.
[SLO:WWF-09-C-33]: Students will demonstrate proficiency in safely using different types of hammers through hands-on practice, emphasizing driving nails, setting joinery, and shaping wood.	[SLO:WWF-10-C-18]: Students will demonstrate proficiency in safely using different types of specialty hammers through hands-on practical exercises to ensure control and precision.
[SLO:WWF-09-C-34]:	

Students will identify different types of mallets (wooden, rubber, carving mallet) and explain their uses in wood work and furniture making,	
[SLO:WWF-09-C-35]: Students will identify parts of a mallet and demonstrate proper maintenance and use of mallet techniques like carving, shaping, and assembly work.	[SLO:WWF-10-C-19]: Students will demonstrate advanced mallet techniques for joinery and carving through hands-on exercises for intricate woodworking tasks.
	[SLO:WWF-10-C-20]: Students will apply their acquired hammer and mallet skills to create a small woodworking project, emphasizing precision, shaping, and joinery techniques.
Benchmark VIII: Students will demonstrate use of files, holding tools, and other required miscellaneous items by explaining their types, anatomy, maintenance, and use of safety measures.	
[SLO:WWF-09-C-36]: Students will identify and distinguish between different types of files (flat, round, half-round, needle files).	[SLO:WWF-10-C-21]: Students will identify holding tools (clamps, vices, bench dogs) and explain their uses.
[SLO:WWF-09-C-37]:	SLO:WWF-10-C-22: Students will demonstrate safe use of holding tools (clamps, vices, bench dogs) in wood work projects through practical hands on approach.

Students will demonstrate maintenance of files and proper filing techniques like shaping wood, smoothing surfaces, and removing material through hands-on practices.	
[SLO:WWF-09-C-38]: Students will demonstrate safe use of files to prevent injuries.	
	[SLO:WWF-10-C-23]: Students will identify miscellaneous tools (awl, marking knife, doweling jigs) and demonstrate safe use for marking, measuring, and joining in various woodworking tasks.
	[SLO:WWF-10-C-24]: Students will apply their acquired skills with files, holding tools, and miscellaneous items to create a small woodworking project, emphasizing the combination of techniques for a finished product.

Domain D: Wood Glue and Joints

Standard: Develop fundamental knowledge and skills in woodworking, focusing on the proper selection and application of wood glues, along with mastering various joinery techniques.

Grade 9	**Grade 10**

BenchmarkI: Students will demonstrate a mastery of basic and advanced wood glue and joinery techniques through the successful completion woodworking project.	
Student Learning Outcomes	
[SLO:WWF-09-D-01]: Students will identify and select appropriate wood glues for different woodworking projects.	[SLO:WWF-10-D-01]: Students will analyze and compare the structural integrity and aesthetic appeal of various joints, considering the role of wood glue in each case.
[SLO:WWF-09-D-02]: Students will demonstrate the proper application and spreading of wood glue on surfaces to be joined.	
[SLO:WWF-09-D-03]: Students will practice basic woodworking joints, including butt joints and lap joints, using wood glue.	[SLO:WWF-10-D-02]: Students will demonstrate advanced joinery techniques, including dovetail joints and box joints, utilizing wood glue for assembly.
[SLO:WWF-09-D-04]: Students will apply correct clamping techniques when using wood glue for basic joints.	[SLO:WWF-10-D-03]: Students will demonstrate application of specialized gluing techniques, such as bent lamination and veneer bonding, showcasing a mastery of wood glue usage
[SLO:WWF-09-D-05]:	[SLO:WWF-10-D-04]:

Students will identify and select appropriate wood glues based on project requirements, considering factors such as drying time, strength, and wood types.	Students will demonstrate proficiency in selecting and using wood glues with consideration for specific project requirements, such as outdoor use, high-stress, or decorative applications.
	[SLO:WWF-10-D-05]: Students will present a woodworking project that showcases mastery of basic and advanced wood glue and joinery techniques, with an emphasis on precision, durability, and aesthetic appeal

Domain E: Geometrical and Technical Drawings

Standard: Demonstrate skills like technical drawing fundamentals, geometric shapes, and constructions, progressing towards advanced skills in orthographic projection and dimensioning. This proficiency extends to mastering advanced drawing techniques, including the use of computer-aided design (CAD) software for precise and efficient digital designs in woodworking.

Grade 9	**Grade 10**
Benchmark I: Students will demonstrate the use of basic drawing tools, understanding geometric shapes, and fundamental drawing techniques essential for woodworking.	
Student Learning Outcomes	

[SLO:WWF-09-E-01]: Student will explain the role of technical drawings in planning and executing woodworking projects.	
[SLO:WWF-09-E-02]: students will provide an overview of how technical drawings effectively communicate design ideas in the context of woodworking projects.	
[SLO:WWF-09-E-03]: Students will demonstrate the proper usage of basic drawing tools, including ruler, T-square, compass, and protractor, through hands-on exercises, laying the groundwork for precise technical drawing.	
[SLO:WWF-09-E-04]: Students will explore and identify basic geometric shapes relevant to woodworking as foundational elements essential for accurate technical drawings.	[SLO:WWF-10-E-01]: Students will apply construction techniques for circles, angles, and polygons through hands-on exercises, acquiring practical skills in geometric constructions crucial for technical drawing proficiency.
Benchmark II: Students will demonstrate skills in orthographic projection, dimensioning principles, and the application of advanced drawing techniques critical for precision in woodworking projects.	
Student Learning Outcomes	

[SLO:WWF-09-E-05]: Students will explain orthographic projection and its application in technical drawing	[SLO:WWF-10-E-02]: Students will demonstrate orthographic projection skills, applying theoretical knowledge to practical scenarios and ensuring proficiency in projecting three-dimensional objects onto a two-dimensional plane
[SLO:WWF-09-E-06]: Students will demonstrate the process of designing furniture with technical drawings, exploring the integration of design principles and technical skills in creating functional and aesthetically pleasing furniture	
Benchmark III: Students will demonstrate traditional drawing proficiency with modern technology, showcasing their ability to proficiently use computer-aided design (CAD) software for the creation of precise and efficient digital designs in the context of woodworking.	
[SLO:WWF-09-E-07]: Students will explore the basics of Computer-Aided Design (CAD) software used in woodworking, gaining familiarity with the interface and essential tools.	[SLO:WWF-10-E-03]: students will demonstrate proficiency in using CAD software for woodworking, incorporating more advanced tools and features.
[SLO:WWF-09-E-08]: Students will demonstrate the use of fundamental tools and functionalities within the CAD software environment using hand on exercises.	[SLO:WWF-10-E-04]: Students will create a digital design using CAD software, applying learned skills to develop a woodworking project digitally.

Domain F: Wood Veneer, Plywood, Hardboard, and Formica

Standard: Explain the basics of wood veneer, plywood, hardboard, and Formica. Demonstrate application of advanced techniques and combining these materials in woodworking projects. Emphasis will be placed on practical application, material selection, and creative integration, fostering a comprehensive understanding of the properties and uses of each material.

Grade 9	**Grade 10**
Benchmark I: Students will demonstrate the use of wood veneer, plywood, and hardboard, starting with an introduction to wood veneer as a decorative layer and progressing to plywood and hardboard fundamentals. They will explore the types, applications, and basic techniques of each material, laying the foundation for advanced woodworking projects that integrate these versatile materials.	
Student Learning Outcomes	
[SLO:WWF-09-F-01]: Students will explore the wood veneer as a thin decorative layer, exploring various types and their applications in woodworking projects	
[SLO:WWF-09-F-02]: Students will apply veneering techniques such as book matching, slip matching and adhesion methods through demonstrations.	

[SLO:WWF-09-F-03]: Students will identify plywood as a composite wood product, including its types and applications in woodworking.	
[SLO:WWF-09-F-04]: Student will identify and select the right plywood for different projects through discussions and hands-on exercises	
[SLO:WWF-09-F-05]: Student will explain hardboard as an engineered wood product, understanding its characteristics and applications.	[SLO:WWF-10-F-01]: Students will demonstrate cutting and shaping hardboard for various woodworking applications, including tips on finishing surfaces for a polished appearance.
Benchmark II: Students will demonstrate practical skills in cutting, shaping, and finishing hardboard, and gain expertise in applying formica to substrates. Building upon these skills, students will explore the advanced woodworking application of combining various materials, including hardboard and Formica, in the creation of unique and sophisticated projects.	
[SLO:WWF-09-F-06]: Students will categorize Formica as a laminate material by analyzing its durability and decorative possibilities.	[SLO:WWF-10-F-02]: Students will demonstrate the process of applying Formica to different substrates through hands-on exercises to practice application techniques.
	[SLO:WWF-10-F-03]:

	Student will demonstrate designing and construction of a combination of veneer, plywood, hardboard, and Formica through hands-on exercises and practical woodworking projects.

NATIONAL CURRICULUM COUNCIL SECRETARIAT
MINISTRY OF FEDERAL EDUCATION AND
PROFESSIONAL TRAINING, ISLAMABAD
GOVERNMENT OF PAKISTAN