

HSC Industrial Technology Timber: Study Notes

Timber Products and Furniture Technologies · syllabus-mapped notes · exam format, question bank 2015–2025, gap analysis

Sources: NESA HSC exam packs 2015–2025 (papers, marking guidelines, marking feedback) and the Industrial Technology Stage 6 Syllabus. *Italic = check before relying on it.*

1. The exam, the question bank and where the marks are

Written exam: Wednesday 4 November 2026, 1:55–3:30 pm (5 min reading + 1 h 30 min). 40 marks, worth 40% of the HSC exam mark; the Major Project (product + design, management and communication folio) is the other 60% and is marked separately. *Confirm the date and room on your Students Online personal timetable.*

Section	Format	Marks	Suggested time	What it tests
I	Q1–10 multiple choice	10	20 min	Tools, joints, conversion, boards, adhesives, fittings, finishes, simple calculations
II	Q11–15 short answer (1–5 marks each, total 15)	15	35 min	Timber focus-area content; usually one calculation
III	Q16 (a) 3–5 marks + (b) 10–12 marks	15	35 min	Industry Study (common to all focus areas), answered with timber/furniture examples

Question bank: Sections II and III, 2015–2025 (official NESA papers)

Year	Q11	Q12	Q13	Q14	Q15	Q16(a)	Q16(b)
2025	Drawer measuring step (2)	Carcase joint characteristic (2)	Band saw vs table saw use (2)	Bending process for curved legs (4)	Machinery set-up/start-up/maintenance (5)	Legislation, sustainability, environment (5)	Historical developments + manufacturing advances, analyse (10)
2024	Feature adhesive: epoxy (1)	Minimise waste strategy (2)	Mitre vs compound mitre saw (3)	Router feature (4)	WHS risks of recycled timber (5)	Marketing: hierarchical vs flat firm, compare (5)	Structure, production + efficiency, analyse (10)
2023	Cabinet fittings category (1)	Environmental benefit of boards (2)	Finish cost calc (3)	Cutting veneers (4)	Air seasoning, explain (5)	ONE new technology (3)	Mass production + automation, discuss (12)
2022	Machine to dress timber (1)	Why EMC matters (2)	Stool cost calc (3)	Recycling/reusing vs shortages (4)	Knock-down fittings benefits (5)	WHS legislation role (5)	Safety strategies, explain (10)
2021	Identify tool: sliding bevel (1)	Kiln vs air seasoning (2)	Cutting list + cost (3)	Plywood from log (4)	Environmental factors, furniture (5)	Industrial relations issues (5)	Career + training opportunities (10)
2020	Outdoor Australian hardwood (1)	Rounded edges, reasons (2)	Cutting list (3)	Joint for cross support (4)	Outdoor finish + steps (5)	Environmental factors, new site (5)	Strategies to minimise environmental impact, discuss (10)
2019	Plywood property (1)	Sketch carcass joint (2)	Sheets needed calc (3)	Plywood log to sheet (4)	Corner rebate joint process (5)	New/emerging tech benefits (5)	Overcome resistance to new tech, discuss (10)
2018	Tool for glass rebate: router (1)	Check frame square (2)	Board for bathroom cabinet, justify (3)	Inlaying technique (4)	Drawer runner advantages (5)	Land costs + transport (5)	Changes in resource management, evaluate (10)
2017	Tool for internal curve (1)	Recycled timber benefits (2)	Environmental practices in finishing (3)	Dovetail drawer benefits (4)	Laminated rocking-chair part (5)	Training importance (5)	Technical factors + efficiency, analyse (10)
2016	Purpose of face mark (1)	Widening joint with power tool (3)	Oil vs water finishes, compare (3)	Restore chisel edge (3)	Boards vs solid for table top (5)	Risk assessment purpose (5)	Historical developments, explain (10)
2015	Dry cramping purpose (1)	Alternate growth rings (3)	Alternative to traditional joints (3)	Quarter-sawn for fine furniture (3)	Laminated veneer stool steps (5)	Restructuring and quality control (5)	New technology, production + efficiency, assess (10)

Gap and priority analysis

Section III topics by year (Industry Study dot points):

Dot point	Years examined	Last seen	Priority for 2026
Structural (organisation, management, marketing, production/efficiency, restructuring, QC)	2015, 2024	2024	Medium: learn S10/S11
Technical (mechanisation, specialisation, mass production, automation, new technology)	2015, 2017, 2019, 2023	2023	High: most-examined; S4/S5
Environmental and sociological (alternative resources, waste, pollution, sustainability, rehabilitation of sites)	2018, 2020	2020	High: not seen for 5 years; S9
Legislative requirements	2025 (with environment)	2025	Medium: S7
Location	2018, 2020	2020	Medium: S8
Personnel (industrial relations, EEO, unions, contracts, careers, training, multi-skilling)	2017, 2019, 2021	2021	High: due again; S12/S13/S14
WHS (legislation, standards, policing, risk assessment, training, culture, communication)	2016, 2022	2022	High: S1/S2/S3
Historical developments (processes, materials, work practices)	2016, 2025	2025	Lower, but S6 doubles as a technology essay
Never directly asked 2015–2025: rehabilitation of commercial sites; alternative power; workplace culture; WHS communication; specialisation vs multi-skilling; group vs individual contracts	–	–	Know one paragraph on each (see Section 2 notes)

Priority is a judgement from past frequency, not a prediction. NESAs can examine any dot point.

Section II pattern: every year has one 1-mark identify question, one or two 2–3 mark questions, a calculation at Q13 every year 2019–2023 (none in Section II in 2015–2018 or 2024–2025, though 2016 had one in multiple choice), one 4-mark process question, and one 5-mark explain/describe question. Repeat topics: **laminating/bending (2015, 2017, 2025)**, **plywood/veneers (2019, 2021, 2023)**, **seasoning/EMC (2021, 2022, 2023)**, **manufactured boards (2016, 2018, 2019, 2023)**, **finishes (2016, 2017, 2020)**, **environment/recycling (2017, 2021, 2022, 2024)**, **WHS (2024, 2025)**, **joints/fittings (2015, 2017, 2019, 2020, 2022, 2025)**. **Never asked in Section II, so worth one paragraph each:** turning, carving, marquetry/parquetry/intarsia, upholstery and allied materials (glass, metal, polymers), shellac/French polish process, economical sheet layout, adhesive selection (5 marks), hinges/catches/table clips, tree structure.

Common reasons students lost marks (NESA marking feedback 2021–2025): listing instead of describing; answering "advantages/disadvantages" when the question asks for "impact"; general WHS answers instead of risks *specific to recycled timber*; describing plywood manufacture when asked only about *cutting veneers*; describing what saws *look like* instead of their *uses*; not addressing *both* parts of a two-part question (e.g. "historical developments **and** advancements", "sustainable practices **and** environmental impacts"); no focus-area examples; not showing working and units in calculations.

Key verbs: *identify* (name it), *outline* (main features), *describe* (features + characteristics), *explain* (cause → effect, "because... therefore"), *compare* (similarities **and** differences), *analyse* (identify components, relationships and implications), *discuss* (points for **and** against), *evaluate/assess* (make a judgement of value with criteria), *justify* (support with reasons and evidence), *recommend* (give a course of action with reasons).

2. Section III notes: the Industry Study (timber products and furniture)

The HSC Industry Study is a broad study of the industry related to the business you studied in the Preliminary course. Every answer should name **real timber/furniture examples**: a type of firm (sawmill, panel/board plant, furniture factory, kitchen/cabinet maker, custom workshop), a technology (CNC router, beam saw, edge bander, kiln), a material (radiata pine, Tasmanian oak, particleboard, MDF, plywood, CLT) or a law.

2.1 Structural considerations

- **Organisation:** sole trader (owner makes all decisions, unlimited liability, e.g. a custom furniture maker), partnership (2+ owners share decisions and profits), company (Pty Ltd or public; limited liability, more capital, e.g. a large board manufacturer).
- **Management roles and levels:** top (owners/CEO: strategy), middle (production, sales and finance managers), front-line (supervisors, leading hands). **Hierarchical** = many levels, specialised departments, formal control, slow decisions. **Flat** = few levels, owner-manager, fast flexible decisions, multi-skilled staff.
- **Marketing and advertising:** product, price, place, promotion. Large firms: catalogues, showrooms, TV/online campaigns, trade fairs, retail chains. Small firms: website, social media, word of mouth, portfolio, markets, commissions.
- **Production and efficiency:** job (one-off custom), batch (runs of the same design), mass/continuous production. Efficiency = output per input (labour hours, material yield, machine utilisation). Improved by CNC, jigs, production layout, just-in-time ordering, nesting software.
- **Restructuring:** changing ownership, management levels, departments, layout, technology or staffing (downsizing, outsourcing, merging). Short-term disruption and retraining; long-term efficiency and quality gains.
- **Quality control (QC):** inspection at each stage (moisture content checks, dimension checks, finish inspection), standards (e.g. Australian Standards for furniture strength and stability), quality assurance systems, traceability, customer feedback.

2.2 Technical considerations

- **Mechanisation:** machines operated by people replace hand labour (e.g. driver-operated forklift, panel saw, thicknesser). **Automation:** machines controlled by computer run with little human input (CNC routers, CNC beam saws, automatic edge banders, robotic sanding/spraying).
- **Specialisation:** workers repeat one task (fast, but boring, repetitive strain). **Generalisation/multi-skilling:** workers trained across tasks (flexible, motivated, cover absences).
- **Mass production:** standardised parts and production lines; low unit cost; flat-pack with knock-down fittings (e.g. IKEA). Less customisation.
- **New and emerging technologies:** CAD/CAM; CNC nesting routers; handheld CNC (Shaper Origin); 5-axis CNC; laser cutting/engraving; 3D printing for prototypes; drones/LiDAR for forest inventory; kiln control systems; engineered timber (LVL, glulam, CLT); low-VOC finishes and UV-cured coatings; online configurators for custom furniture.

2.3 Environmental and sociological considerations

- **Alternative resources:** power (solar, biomass boilers burning sawdust to heat kilns, off-peak operation), materials (plantation, recycled, certified timber; bamboo; boards from residues), processes (water-based finishes, nesting to reduce waste).
- **Recycling and reusing:** offcuts and sawdust become particleboard, MDF, mulch, animal bedding or fuel; salvaged beams, floorboards and wharf timbers are reused in furniture.

- **Waste management and minimisation:** cutting lists and sheet layouts, nesting software, dust collection, chemical waste disposal, packaging reduction.
- **Pollution:** wood dust (air and health), solvent fumes (VOCs), noise, chemical run-off, formaldehyde emissions from some boards (choose E0/E1).
- **Sustainable development:** meeting today's needs without harming future generations: certified forests (FSC, Responsible Wood/PEFC), replanting, carbon storage in long-life timber products.
- **Rehabilitation of commercial sites:** cleaning up and restoring former mills, timber treatment plants and yards (contaminated soil from preservatives such as CCA), landscaping and replanting after closure or relocation.
- **Legislative requirements:** local (council development approval, zoning, noise limits), state (NSW Protection of the Environment Operations Act 1997 and EPA licences; WHS Act 2011 (NSW); forestry laws; Victoria and WA ended native forest logging from 1 January 2024), federal (Illegal Logging Prohibition Act 2012; Environment Protection and Biodiversity Conservation Act 1999; Fair Work Act 2009). Environmental studies = environmental impact statements/assessments before development.
- **Location:** land costs and availability; transport facilities (highways, rail, ports); workforce; impact on the surrounding population (noise, dust, trucks); resource availability (near plantations and mills, e.g. Oberon, Tumut); geographical factors; waste management.

2.4 Personnel issues

- **Industrial relations:** relationship between employers, employees, unions and government. **Equity/EEO:** fair recruitment and promotion, no discrimination (anti-discrimination laws). **Unions** negotiate pay and conditions. **Group negotiated contracts** = enterprise agreements under the Fair Work Act 2009. **Individual contracts** = an agreement between one employee and the employer (must meet the award minimums, e.g. Timber Industry Award 2020).
- **Career and training opportunities:** apprenticeships (Certificate III in Cabinet Making through TAFE NSW), traineeships, wood machining, CNC operation and programming, furniture design (university/TAFE), finishing/polishing, upholstery, sales, estimating, production management, quality control.
- **Specialisation vs multi-skilling, roles of personnel** (designer, cabinet maker, machinist, CNC programmer, finisher, installer, estimator, supervisor, manager, sales), **work practices** (shift work, teams, flexible hours, outsourcing).

2.5 Work health and safety

- **Government legislation:** WHS Act 2011 (NSW) and Regulation; duties on the PCBU, officers and workers; SafeWork NSW is the regulator.
- **Industry requirements:** standards (Australian Standards, codes of practice e.g. for noise, hazardous chemicals, manual handling); **policing** (inspectors, notices); **prosecution** (fines, court).
- **Risk assessment:** identify, assess (likelihood × consequence), control (hierarchy of control: eliminate, substitute, isolate/engineer, administrative, PPE), review.
- **Safety training and human factors:** induction, machine competency, refresher training; fatigue, distraction, complacency, rushing.
- **Workplace culture and WHS communication:** consultation, HSRs and committees, toolbox talks, signage (prohibition, mandatory, warning, emergency), safety data sheets (SDS) for chemicals.
- **Timber hazards:** blade contact, kickback, wood dust (hardwood dust causes nasal cancer), noise-induced hearing loss, manual handling of sheets, flammable finishes and oily rags, formaldehyde, treated timber, hidden metal in recycled timber.

2.6 Historical developments

Hand tools and craft guilds, then water and steam-powered sawmills (Industrial Revolution), then steam bending and standardised parts (Thonet, 1859), then electric motors and power tools (20th century), then plywood, particleboard and MDF (mid-20th century), then flat-pack (IKEA, 1950s), then CNC and CAD/CAM (late 20th century), then engineered mass timber (CLT, glulam) and digital design and online custom manufacture (21st century). For each change, analyse effects on **manufacturing processes, materials and work practices**, positive and negative.

3. Section II notes: Timber Products and Furniture (HSC focus-area content)

3.1 Timber: structure, properties, terms, defects

- **Tree structure:** bark, phloem (carries food down), cambium (growth layer), sapwood (living, conducts sap, less durable), heartwood (dead, darker, more durable), pith; growth rings = earlywood (spring, lighter) + latewood (summer, denser); medullary rays.
- **Hardwood vs softwood:** botanical, not hardness. Hardwoods = angiosperms (broad leaves, e.g. eucalypts such as Tasmanian oak, blackbutt, spotted gum, jarrah, ironbark; also imported merbau, maple, oak). Softwoods = gymnosperms/conifers (e.g. radiata pine, hoop pine, Douglas fir/Oregon). Red cedar dust is known to cause allergic reactions (2019 MC4).
- **Outdoor Australian hardwoods (2020 Q11):** spotted gum, blackbutt, jarrah, ironbark, tallowwood (durable heartwood).
- **Properties:** figure, grain direction, texture, colour, strength, durability, weight/density, hardness, weathering.
- **Terms:** rough sawn; **DAR** = dressed all round (four machined faces); **PAR** (planed all round); nominal vs actual size; grades; lineal/linear metre; F-grades/MGP (stress grades); green vs seasoned; face side and face edge marks (2016 Q11).
- **Defects:** splits, checks, shakes, knots, warping (bow, spring, cup, twist/wind), collapse, end splits.

3.2 Recovery, conversion and seasoning

- **Conversion:** live/through sawing (parallel cuts, fast, least waste, mix of grain; e.g. radiata pine palings, 2019 MC2); back sawing (rings tangential to face, wider boards, attractive "cathedral" figure but cups); quarter sawing (rings at 45–90° to face: most stable, ray figure, more waste and cost); flitches (large sections for later re-sawing or veneer slicing); burls (abnormal growth, prized figure, 2016 MC3 / 2023 MC9).
- **Seasoning:** air (stack, stickers, cover, end-seal; cheap, slow, to outdoor EMC) vs kiln (controlled heat/humidity/airflow; fast; precise MC; kills insects; energy cost). Solar kilns are a low-energy variation. Ripping = cutting along the grain; cross-cutting = across.
- **EMC:** moisture content in balance with surrounding air; select timber near the EMC of the place of use to prevent shrinking/swelling after construction.

3.3 Timber selection considerations

Plantation timbers (radiata pine, hoop pine; renewable, consistent supply), exotic timbers (imported; check sustainable sourcing and legality, 2024 MC6), recycled/reused timbers (seasoned, character; check for metal and contaminants), "green" timbers (certified sustainable; also *green* can mean unseasoned, so define your use), economical usage and waste minimisation, environmental issues/pollution, sustainability, WHS issues (dust, allergies, toxic treatments).

3.4 Manufactured boards, veneers and adhesives

Board	How it is made	Properties and uses
Plywood	Rotary-peeled veneers, glued with grain at 90°, odd number of plies, hot pressed	Strong in both directions, stable, does not split near edges; marine/exterior grades use phenolic glue. Cabinets, curved work, boxes
Particleboard	Wood chips + resin, formed into a mat and hot pressed	Cheap, stable, flat; poor edge screw-holding; swells if wet (use HMR). Carcasses, benchtops (melamine faced)
MDF	Wood fibres (from refining chips) + resin, hot pressed	Very smooth, machines and paints well, routed edges; heavy, fine dust (wear a respirator). Doors, mouldings, painted furniture

Board	How it is made	Properties and uses
Hardboard	Wet-process fibres pressed with heat, little or no added resin	Thin, dense; drawer bottoms, backs
Blockboard / lamiboard	Core of solid timber strips between veneers	Stiff, lighter; shelving, doors
LVL / glulam / CLT	Veneers or laminations glued with grain mainly parallel (LVL, glulam) or crossed layers (CLT)	Engineered structural members and panels; large spans; mass-timber buildings

- **Veneer cutting:** rotary peeling (continuous sheet, for plywood), flat/crown slicing, quarter slicing (straight striped grain), rift slicing, half-round slicing. Veneers are used for veneering, marquetry (pictures from veneer), parquetry (geometric patterns).
- **Environmental/WHS issues of boards:** use of residues and plantation logs (positive); formaldehyde emissions (choose E0/E1); fine dust when machining MDF; disposal (not easily recycled).
- **Adhesives:** PVA (white glue; ready to use, water soluble, easy clean-up, interior; cross-linking PVA is water resistant), epoxy resin (two-part, waterproof, gap filling, can be tinted as a feature, 2024 Q11), hot melt (fast, temporary/jigs, 2022 MC3), urea-formaldehyde (powder mixed with water; sets by chemical reaction; rigid; interior plywood and laminating, 2023 MC8), resorcinol-formaldehyde (exterior and marine, dark glue line), contact adhesive (both surfaces, bonds on contact; laminates and veneers).

3.5 Fittings and allied materials

Screws (countersunk, round head, raised head, coach screws, chipboard screws with nibs that self-countersink, 2015 MC7; length measured as the part embedded in the material for round heads, 2018 MC8; pitch = distance between threads, 2023 MC6), nails (bullet head, panel pins (use a Warrington hammer), clouts), nuts and bolts, **knock-down fittings** (cam lock, cross dowel, connector bolt, threaded inserts), hinges (butt, piano, concealed/European cup hinges, often soft-close), handles and knobs (snap-off screws let the length be adjusted, 2024 MC8), staples/staple guns (attaching thin sheet backs, 2022 MC4), **drawer runners** (timber runners: cheap, custom, replaceable; metal ball-bearing/full-extension runners: heavy loads, smooth, full access, easy with templates, 2018 Q15, 2025 MC8), table clips/buttons (attach tops while allowing movement), latches, catches, shelf hangers/supports. Allied materials: glass, metal, polymers, upholstery (foam, webbing, fabric), composites; mainly add function and aesthetics (2024 MC5).

3.6 Processes: planning and preparation

- **Planning:** sketches, working drawings (dimensions, scale, sections, cutting list, 2017 MC8), materials list (all supplies accounted for, 2024 MC9), cutting list, calculations, costing. A pictorial drawing shows 3D views, while working drawings give construction details (2025 MC4).
- **Preparation of timber (dressing):** plane the **face** side flat (jointer/planer), then the **face edge** square to it, then thickness on the thicknesser (check grain direction to avoid tear-out, 2015 MC10), then width, then length. Hand: trying plane for straight edges (2019 MC1), jack plane, smoothing plane, then cabinet scraper and abrasive before clear finishing.

3.7 Joints

- **Widening:** dowelled butt, tongue and groove, rebate, groove and feather (loose tongue; also strengthens mitres, 2022 MC8), biscuit (2024 MC2), Domino. Alternate growth rings; clamp with sash cramps (2019 MC7).
- **Framing:** mitre (hides end grain, 2017 MC6, 2023 MC4), halving (tee, cross, corner), dowelled, box pin/finger (drawers and boxes, 2022 MC2), mortise and tenon (through, stopped, haunched, wedged; tenon $\approx 1/3$ thickness), bridle. Frame and panel doors: prepare stiles, then rails, then centre panel (2024 MC10).

- **Carcase:** rebate, scribed (shapes one moulded piece over another, 2022 MC10), dovetail (through, lapped/half-blind for drawer fronts), housing (through or **stopped** to conceal it, 2025 MC1; depth $\approx$ 1/3 thickness, 2021 MC7).
- **Drawer:** dovetails or lap/rebate joints; bottom in a groove, floating to allow movement (2022 MC5).

3.8 Construction techniques

Sawing (rip along the grain, cross-cut across; kerf = width of cut, from the set of the teeth, stops the blade jamming, 2015 MC1), drilling (pilot, then clearance, then countersink, then screw, 2018 MC5; Forstner bit for flat-bottomed blind holes; spade bit: clamp scrap underneath to stop breakout, 2025 MC2), edge treatments (round-over, chamfer, bevel, ovolo, cove, ogee; rounding edges outdoors improves comfort and safety and helps finish adhesion, 2020 Q12), nailing and screwing, sanding, scraping (cabinet scraper for internal curves and tear-out, 2016 MC5), turning (spindle between centres with the tailstock supporting the work, 2025 MC3; faceplate turning for bowls, 2023 MC5), carving, inlaying (router trench + fitted strip, 2018 Q14), marquetry, veneering, parquetry and intarsia, **laminating**, **bending** (steam, kerf, laminate), routing (template/guide bush, bearing-guided bits, plunge cuts). Manufactured boards: economical sheet layout, cutting sheet material (panel saw, scoring blade, CNC), handling (two people/vacuum lifter), assembly.

3.9 Assembly

Test, fit and check joints; **dry cramp** (check fit, set cramps, rehearse the glue-up order, check square and flat, 2015 Q11, 2016 MC6); use of cramps (sash, G, F, quick-grip, strap, band, frame); test for square (equal diagonals) and flatness (straight edge, winding sticks).

3.10 Finishing

Preparation (sand through the grits with the grain, raise the grain, sand again, remove dust), staining, filling (grain filler for open-grained timber; wood filler for imperfections, 2024 MC1), oils (Danish, tung, decking), finishes: oil-based (polyurethane, varnish: durable, amber, slow, flammable) and water-based (fast, clear, low odour; can raise the grain and alter the texture, 2023 MC10), shellac (dissolved in methylated spirits = French polish, fast drying, 2021 MC9, 2022 MC9), spray finishes (lacquers, 2-pack; spray booth with extraction). **Environmental issues:** VOC emissions, solvent disposal, oily-rag fires, overspray; use water-based/low-VOC, filtered booths, approved waste disposal.

3.11 Tools and machinery (school and industry)

- **Hand tools:** saws (rip, cross-cut, tenon/back, dovetail, coping), planes (jack, smoothing, trying, block, rebate, spokeshave for curves), chisels (bevel-edge, mortise, firmer), marking (try square, sliding bevel, marking/mortise gauge for lines parallel to an edge, 2017 MC3), mallet, hammers (claw for extracting nails with a block underneath for leverage, 2021 MC6, 2023 MC3; Warrington for panel pins), cramps.
- **Portable power tools:** drill/driver, jigsaw (internal curves), circular saw, router (rebates, grooves, edges, templates), biscuit joiner, Domino, orbital and belt sanders, nail guns.
- **Machines:** table saw, panel saw, band saw (curves; fine-tooth narrow blades for tight curves and thin stock, 2015 MC8), jointer/planer, thicknesser, mitre/drop saw and compound mitre saw, drill press, mortiser, wood lathe, finisher/disc sander, spindle moulder.
- **Industry only:** CNC routers and nesting machines, CNC beam saws, automatic edge banders, four-sided moulders, wide-belt sanders, multi-borers, veneer presses, vacuum presses, kilns, spray lines, rotary lathes for veneer peeling.
- **Maintenance:** sharpening (grind $\sim$ 25°, hone $\sim$ 30°; honing = finishing a blade's edge on a whetstone, 2015 MC5; a chipped edge must be ground, then honed, 2022 MC6), blade changes with power isolated, cleaning, lubricating, belt checks, logs.

3.12 Calculations (always show working and units)

Volume $\text{m}^3 = L \times W \times T$ in metres; cost = volume $\times \$/\text{m}^3$. Linear metres = number $\times$ length; cost = linear metres $\times \$/\text{m}$. Widening a top: number of boards = top width $\div$ board width (round up); total length = number $\times$ length.

Sheets: pieces per sheet from a layout, then total $\div$ per sheet, rounded up. Finish: area $\times$ coats $\div$ coverage = litres.

Uncertain items are flagged in italics. The syllabus content in this guide follows the Industrial Technology Stage 6 Syllabus (focus area: Timber Products and Furniture Technologies, HSC). NESA re-issued the syllabus in 2013 with OHS renamed WHS; the content dot points are otherwise as listed.