

DESIGN ENGINEERING PATHWAYS

YEAR 7 STORAGE BOX LP

DECLARATIVE KNOWLEDGE I know			PROCEDURAL KNOWLEDGE I can do		
K1	Workshop safety rules		C1	Work safely in a workshop following the workshop safety rules.	
K2	Different materials and adhesives used for storage box production		C2	With help and support research available products to determine different materials and adhesives that would be suitable for use in this project.	
K3	The following SolidWorks tools: Sketch Corner rectangle Circle Smart Dimension Trim entities Boss extrude Mate		C3	With help and support, use SolidWorks to fully create design parts from an existing design.	
K4	Identify the following materials and tools: PVA (wood) glue 3mm Plywood M3x10 countersunk screws M3x10 machine screws M3 nylock nuts Long nose pliers Screwdriver		C4	With help and support, use SolidWorks to fully create a design assembly from existing designs.	
K5	The following Google search tools: Color – Black and white images Type – Line drawings Copy image		C5	With help and support, use the appropriate tools, PVA glue and pre-cut Plywood parts to manufacture a storage box.	
K6	The following TechSoft 2D Designs tools: Layout Paste image Zoom in and out Bitmap vectorising Cutting pathway colours Text tool		C6	With help and support use the laser cutter to engrave images onto the required parts.	
K7	Reflecting on work completing will help improve future learning		C7	With help and support, use progression over time, independently evaluate the quality of the product, related research and design tasks.	
K8			C8	With help and support, identify targets for improvement in future products.	

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