

The Warren Comprehensive School AVCE Log Book

Engineering Processes – Skills Sheet

	Skill	Reference
	<ol style="list-style-type: none"> 1. Material removal (Machine) <ul style="list-style-type: none"> • Centre lathe (Manual) • Centre lathe (CNC) • Milling machine (Manual) • Milling machine (CNC) • Pillar drill 2. Material removal (Hand) <ul style="list-style-type: none"> • Hacksaw/Junior hacksaw/Coping saw/Tenon saw • File – Appropriate shape and course • Tin snips 3. Shaping <ul style="list-style-type: none"> • Vacuum forming • Injection moulding • Sheet bending (Cold) • Sheet bending (Hot) • Casting 4. Assembly and Joining <ul style="list-style-type: none"> • Welding • Brazing • Soldering • Adhesive • Threaded • Riveting 5. Heat and Chemical Treatment <ul style="list-style-type: none"> • Case hardening • Tempering/annealing • Chemical etching 6. Surface finishing <ul style="list-style-type: none"> • Dip coating • Spray painting • Polishing (hand) • Polishing (machine) 7. Production plan for process 8. Service plan for equipment used 9. Risk assessment for the activity 	<ul style="list-style-type: none"> • 1a • 1b • 1c • 1d • 1e • 2a • 2b • 2c • 3a • 3b • 3c • 3d • 3e • 4a • 4b • 4c • 4d • 4e • 4f • 5a • 5b • 5c • 6a • 6b • 6c • 6c