

LESSON PLAN

LESSON PLAN NUMBER: 5

Department: AMA Phase 2 Core Mechanical

Aim: To gain knowledge and understanding of Machine Shop Appreciation CME29**Topic:** Phase 2 ROA Core Mechanical – Machine Shop Appreciation CME29**Previous Knowledge:** Phase 1

Target Time	Record of Achievement Reference	Objectives/Content	Tutor Activity	Learner Activity	Resources		Assessment
					Handouts	Equipment	
Session 1 1.40 hrs (Subject to TTE Lunch & Break Rota)	CME29 <u>Machinshop</u> <u>Appreciation</u> Awareness of using the Milling machine for specific tasks	Classroom Session Objective 1– (<i>The Milling Machine</i>) Milling machine safe operation Setting the head, Setting the workholding devices, Milling cutters –types , safe removal /installation, Machining strategy, speeds/feeds, Establishing workpiece reference points/datum's	Set out the days objectives Re-cap planning Tool-Box Talk Explain the risks Explanation Demonstration Promote discussion Ask open & targeted questions	Group discussion Observation Take notes	The Milling machine	Interactive white board (IWB) Presentation The Milling machine	Observation Product
Session 2 1.40 hrs (Subject to TTE Lunch & Break Rota)	CME29 <u>Machinshop</u> <u>Appreciation</u> Planning & Manufacture of a Hexagonal shear bolt Cont'd	Classroom Session Objective 2 – (The Index Head) Index Plate / Sectors Plain Indexing , Direct Indexing Differential Indexing, Indexing in Degrees, Indexing Operations	Recap/ Bridge last session, intro this session Explanation Demonstration Give practical examples	observation Take notes Undertake written examples of indexing	Indexing	Presentation Indexing	Observation
Session 3 1.40 hrs (Subject to TTE Lunch & Break Rota)	CME29 <u>Machinshop</u> <u>Appreciation</u> Planning & Manufacture of a Hexagonal shear bolt Cont'd	Practical Session Objective 3 – (<i>Hex Bolt</i>) To complete the hexagonal milling operation using the dividing head / Rotary table	Recap/ Bridge last session, intro this session Explanation Demonstration Technical support	safe operation of the Milling Machine Milling operations Interim inspection		Workshop tools Precision measuring tools	Observation Product
Session 4 1.40 hrs (Subject to TTE Lunch & Break Rota)	CME29 <u>Machinshop</u> <u>Appreciation</u> Planning & Manufacture of a Hexagonal shear bolt Cont'd	Practical Session Objective 4 – (<i>Hex Bolt</i>) To complete the hexagonal milling operation using the dividing head / Rotary table	Recap/ Bridge last session, intro this session Explanation Demonstration Technical support Examination of product feedback	safe operation of the Milling Machine Milling operations Final inspection		Workshop tools Precision measuring tools	Observation Product

Equality & Diversity	Differentiated Learning Activities (Highlight or tick where applicable)
<p><u>Challenge stereotypes by:</u></p> <ul style="list-style-type: none"> • Using non discriminatory language. • Using diverse images, names & scenarios. <p><u>Promote a positive learning environment by:</u></p> <ul style="list-style-type: none"> • Being a positive role model. • Encouraging collaborative work. • Valuing individual characteristics and experiences. • Encouraging learners to participate. • Nurturing mutual respect. • Promoting positive behaviour. <p><u>Promote inclusion by:</u></p> <ul style="list-style-type: none"> • Anticipating and addressing potential barriers to learning. • Using accessible resources. 	<ul style="list-style-type: none"> • Mix of individual, paired and group work. <input type="checkbox"/> • Variety of activities for different learning styles. <input type="checkbox"/> • Learner support. <input type="checkbox"/> • Targeted differentiated questioning to check learning with prompts/leads to support less able learners. <input type="checkbox"/> <p><u>Specific Differentiation activities:</u></p> <ul style="list-style-type: none"> • By Extension <input type="checkbox"/> (For example additional practical tasks after completion of ROA content for the most able) • By Group Work <input type="checkbox"/> (For example grouping learners of mixed ability to support each other within the peer group) • By Content. <input type="checkbox"/> (For example study different materials within the same topic area) • By Activities. <input type="checkbox"/> (For example study the same content but do different activities) • By Gradation <input type="checkbox"/> (for example the same information and activities are given as the activity becomes progressively more difficult only the more able complete the difficult tasks)
<p align="center">Individual Learner / Group Targeted Needs / Strategies (List details where applicable)</p>	