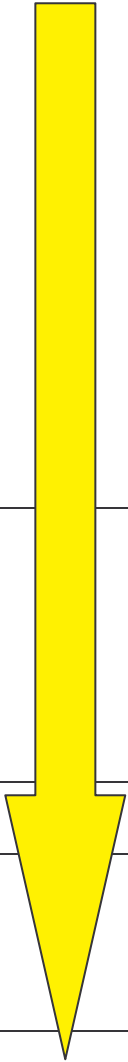


CORE CONTENT: Technological Process:

LEARNING OUTCOME 1:		LEARNING OUTCOME 2:		LEARNING OUTCOME 3:		LEARNING OUTCOME 4:	
TECHNOLOGY SOCIETY AND THE ENVIRONMENT		TECHNOLOGICAL PROCESS		KNOWLEDGE AND UNDERSTANDING		APPLICATION OF KNOWLEDGE	
12.1.1 Predict the impact of future developments in technology on society and environment.	X	12.2.1 Identify, investigate, define and analyse problems in a given real-life situation.	X	12.3.1 Apply the Occupational Health and Safety (OHS) Act and regulations where applicable		12.4.1 Safety and instruments Identify unsafe conditions and acts and apply tools and instruments correctly.	
12.1.2 Respect human rights and analyse issues relating to employment equity.	X	12.2.2 Generate and/or design possible solutions for problems.	X			12.4.2 Electrical applications Construct and analyse single-phase and three phase circuits.	
12.1.3 Describe, explain and respond to medical emergencies in context, taking cognisance of health issues such as HIV/Aids.	X	12.2.3 Make or improve products according to the selected design.	X	12.3.3 Explain three-phase AC generation.		12.4.3 Electronics Construct and analyse electronic circuits	
12.1.4 Analyse how solutions to technological problems in different cultures are combined into an optimum solution	X	12.2.4 Evaluate the product against the initial design.	X	12.3.4 Determine the effect of AC on series and parallel resistor, inductor and capacitor component combination circuits.		12.4.4 Digital electronics Construct and analyse programmable control circuits.	
12.1.5 Identify and investigate possible entrepreneurial opportunities.	X	12.2.5 Present assignments by means of a variety of communication media.	X				
				12.3.6 Explain the operating principles of switching and control circuits.			
				12.3.7 Analyse the output of amplifiers, taking characteristics and feedback into account.			
				12.3.8 Explain the operation and use of three-phase transformers.			
				12.3.12 Explain the operating principles and application of three-phase motors and control.			

TEACHING ACTIVITIES	LEARNERS ACTIVITIES	RESOURCES	ASSESSMENT	DATE COMPLETED
<p>Technological Process:</p> <p>Review/explain the Technological process:</p> <ol style="list-style-type: none"> 1. Identify, investigate, define and analyse problems in a given real-life situation. 2. Generate and/or design possible solutions for problems. 3. Make or improve products according to a selected design. 4. Evaluate a final product against the initial design. 5. Present assignments by means of a variety of communication media. <p>Teacher provides guidance in planning and execution of PAT topic</p>	<p>Learners apply the following principles</p> <ol style="list-style-type: none"> 1. Identify, investigate, define and analyse problems in a given real-life situation. 2. Generate and/or design possible solutions for problems. 3. Make or improve products according to a selected design. 4. Evaluate a final product against the initial design. 5. Present assignments by means of a variety of communication media. <p>and then</p> <ul style="list-style-type: none"> • Present the final solution with working/layout drawings • Present the final solution, or parts thereof, with a 3D pictorial drawing(s), and a model where necessary • Evaluate the whole process 	<p>Models, CAD software, Audio-visual media, Worksheets, Drawing instruments catalogues, internet.</p>	<p>Tools:</p> <ul style="list-style-type: none"> • Memo's • Task lists, • rubrics <p>Method:</p> <ul style="list-style-type: none"> • Teacher <p>Evidence:</p> <ul style="list-style-type: none"> • Task-based 	
<p>Cost Factors</p> <p>Guide learners in costing the PAT</p>	<p>Learners research and compile costing lists.</p>		<p>Presentation portfolio for performance evaluation</p>	
<p>Entrepreneurial opportunities</p>	<p>Research and present <i>Entrepreneurial Opportunities</i> for the scenario in a portfolio of evidence.</p>			



Models	Model the final solution.			
Homework:				
Enrichment/Expanded Opportunities:				
Teacher Reflections:				