

Title	Principles of the refrigeration cycle in food technology				
Ofqual unit ref	L/502/7558				
Level	3	Credit value	4	GLH	32
Learning Outcomes			Assessment Criteria		
The learner will:			The learner can:		
<p>1 Understand the definition and purpose of refrigeration</p> <p>2 Understand the technical aspects of the refrigeration cycle</p> <p>3 Understand refrigerants and latent heat properties in the refrigeration cycle</p> <p>4 Understand the disposal and safety issues relating to refrigeration</p>	<p>1.1 Explain the definition and purpose of</p> <ul style="list-style-type: none"> • refrigeration • refrigerants <p>1.2 Summarise the purpose of the refrigeration process.</p> <p>2.1 Explain how liquid refrigerant takes up heat in an evaporator</p> <p>2.2 Explain how refrigerant vapour is compressed and condensed into a liquid</p> <p>2.3 Explain the purpose of the expansion valve in the circulation of the refrigerant</p> <p>2.4 Explain the purpose of the refrigerant reservoir.</p> <p>3.1 Summarise the substances that are used as refrigerants</p> <p>3.2 Compare the advantages and disadvantages of different types of refrigerants</p> <p>3.3 Explain the term "latent heat of evaporation"</p> <p>3.4 Explain why latent heat of evaporation is important in the refrigeration cycle</p> <p>3.5 Justify why refrigerants need to have a high latent heat capacity.</p> <p>4.1 Explain concerns in the maintenance and disposal of refrigeration equipment including:</p> <ul style="list-style-type: none"> • energy • sustainability • environmental <p>4.2 Summarise the safety precautions required when working with refrigerants.</p>				

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Unit purpose and aim(s)	<p>This unit is designed to assess the underpinning knowledge and understanding of learners in the workplace context, for understanding the principles of the refrigeration cycle in food technology. It can be assessed on or off the job. The learner must demonstrate their current knowledge and understanding, to meet all assessment criteria. Assessment methods appropriate to the needs of the learner must be used to generate satisfactory evidence of knowledge and understanding. The Improve Assessment Strategy for Proficiency Qualifications in Food and Drink sets out the overarching assessment requirements.</p>	