

Title		Principles of freezing methods in food technology			
Ofqual unit ref		F/602/4506			
Level	3	Credit value	4	GLH	30
Learning Outcomes			Assessment Criteria		
The learner will:			The learner can:		
1 Understand how the freezing process preserves and stores foods			1.1 Explain how freezing acts as a preservation method for foods		
			1.2 Explain how freezing effects the storage life of foods		
			1.3 Describe the process of freezing in foods including: <ul style="list-style-type: none"> • ice crystal formation • concentration of dissolved substances • temperature requirements • tempering 		
2 Understand the technical aspects of freezing on foods			2.1 Summarise the effect of freezing on plant cell material		
			2.2 Explain the definition and importance of the thermal arrest period to food product quality		
			2.3 Summarise the affect of freezing on animal tissue		
			2.4 Explain meaning of the term "quick-freezing"		
			2.5 Explain the term "deep-freezing" as defined by the International Institute of Refrigeration		
			2.6 Explain how food products can be individually quick frozen		
			2.7 Clarify the advantages of individually quick freezing vegetables and fruits		
3 Understand freezing methods in food technology			3.1 Explain the use and functionality of the <ul style="list-style-type: none"> • immersion-freezing method • plate freezing method • blast freezing method 		
			3.2 Explain the use and functionality of <ul style="list-style-type: none"> • fluidised bed freezers • cryogenic freezers • liquid carbon dioxide freezers 		
4 Understand the cold chain distribution of frozen foods			4.1 Outline how the cold chain works in the distribution of frozen foods		

Title	Principles of freezing methods in food technology	
Ofqual unit ref	F/602/4506	
4 Understand the cold chain distribution of frozen foods		4.2 Explain the profile of temperature maintenance across the breadth of the cold chain
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 freezing methods 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>	