Content Assessment Tracker
ICTNWK511 Manage Network Security

		Learning Guide	Assessment 1 - Define a process for designing security	Assessment 2 - Identify threats to network security
1	**Define a process for designing security**			
1.1	Define planning phase for network security design	**1.1**	**1**	
1.2	Define building phase for network security design	**1.2**	**2**	
1.3	Define managing phase for network security design	**1.3**	**3**	
2	**Identify threats to network security**			
2.1	Determine why attacks occur	**2.1**		**1**
2.2	Determine who the attack may come from	**2.2**		**2**
2.3	Analyse common types of network vulnerabilities	**2.3**		**3**
2.4	Determine how attacks occur	**2.4**		**4**
2.5	Design a threat model to categorise threats	**2.5**		**5**
3	**Analyse security risks**			
3.1	Determine elements of risk management	**3.1**		
3.2	Determine assets that require protection	**3.2**		
3.3	Categorise assets and calculate their value to the organisation	**3.3**		
3.4	Create a risk management plan	**3.4**		
4	**Create a security design**			
4.1	Determine attacker scenarios and threats	**4.1**		
4.2	Design security measures for network components	**4.2**		

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1	**Define a process for designing security**			
4.3	Obtain feedback and adjust if required	**4.3**		
4.4	Develop security policies	**4.4**		
5	**Design and implement responses to security incidents**			
5.1	Design auditing and incident response procedure	**5.1**		
5.2	Document security incidents	**5.2**		
5.3	Implement configurations aligned with incident response procedure design	**5.3**		
5.4	Test and sign off	**5.4**		
	Foundation Skills			
Writing	Uses factual information and industry related terminology to develop organisational plans, security policies and document security breaches			**5**
Oral Comm.	Uses active listening, observational and questioning techniques in order to identify different perspectives and confirm and clarify understanding			
Numeracy	Calculates equipment costs in order to assess their business related value			
Get the Work Done	Demonstrates a sophisticated understanding of principles, concepts, language and practices associated with the digital world and uses these to troubleshoot and reduce risks Uses digital tools to access and organise complex data and analyse multiple sources of information for strategic purposes Is acutely aware of the importance of understanding, monitoring and controlling access to digitally stored and transmitted information Uses a combination of formal and logical planning processes and an increasingly intuitive understanding of context to plan control methods for managing system security Makes a range of critical decisions in relatively complex situations, taking a range of constraints into account Recognises and addresses complex problems, including systems processes and rapid deployment of solutions to problems involving failure and security incidents		**1,2,3**	**1,2,3,4**
	Performance Evidence - evidence of the ability to:			

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1	**Define a process for designing security**			
PE1	Evidence of the ability to: identify threats to security			**1,2**
PE2	Evidence of the ability to: develop risk management plan			
PE3	Evidence of the ability to: design network security policies			
PE4	Evidence of the ability to: analyse and plan solutions to compromised networks and design incident response			**2**
PE5	Evidence of the ability to: evaluate security information and use it to plan suitable control methods and countermeasures			
PE6	Evidence of the ability to: add network controls, according to system security policies, procedures and risk management plan.			
Note:	If a specific volume or frequency is not stated, then evidence must be provided at least once.			
	Knowledge Evidence - student must:			
KE1	recognise and describe common ICT networks and their configuration	**6.1**		
KE2	identify and describe network attacks, vulnerabilities and related weaknesses of installed infrastructure, including: security technologies	**6.2**		
KE3	identify and describe network attacks, vulnerabilities and related weaknesses of installed infrastructure, including: emerging security issues	**6.3**		
KE4	identify and describe network security measures, including: auditing and penetration testing techniques	**6.4**		
KE5	identify and describe network security measures, including: logging analysis techniques	**6.5**		
KE6	identify and describe network security measures, including: organisational network infrastructure	**6.6**		
KE7	identify and describe network security measures, including: capabilities of software and hardware solutions	**6.7**		
KE8	identify and describe network security measures, including: general features of emerging security policies, with depth in security procedures	**6.8**		

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KE9	identify and describe network security measures, including: network management and security process controls	**6.9**		
KE10	explain network security implementation risk management plans and procedures, including: network security planning	**6.1**		
KE11	explain network security implementation risk management plans and procedures, including: implementation	**6.11**		
KE12	explain network security implementation risk management plans and procedures, including: cost analysis and budgeting.	**6.12**		
	Assessment Conditions			
ASS1	Gather evidence to demonstrate consistent performance in conditions that are safe and replicate the workplace. Noise levels, production flow, interruptions and time variances must be typical of those experienced in the network industry, and include access to:			
	a site or prototype where network security may be implemented and managed			
	network support tools currently used in industry			
	organisational security policies, manufacturer recommendations and security standards.			
ASS1	Assessors must satisfy NVR/AQTF assessor requirements.	**RTO Standard 1**	**RTO Standard 1**	**RTO Standard 1**

Assessment 3 - Analyse security risks	Assessment 4 - Create a security design	Assessment 5 - Design and implement responses to security incidents	Assessment 6 - Knowledge Questions
1			
2			
3			
4			
	1		
	2		

Assessment 3 - Analyse security risks	Assessment 4 - Create a security design	Assessment 5 - Design and implement responses to security incidents	Assessment 6 - Knowledge Questions
	3		
	4		
		1	
		2	
		3	
		4	
4	2,4	1,2,4	
	3		
3			
1,2,3	1,2	3,4	

Assessment 3 - Analyse security risks	Assessment 4 - Create a security design	Assessment 5 - Design and implement responses to security incidents	Assessment 6 - Knowledge Questions
1			
4			
	4		
	2,3,4		
		2,3	
		2,3,4	
			1
			2
			3
			4
			5
			6
			7
			8