DRAFT 1.0 May 2021

all you need to know.

NCFE Level 2 Certificate in Working in the Digital Support Sector (603/7483/4)

Qualification Specification

Contents

Please note this is a draft version of the qualification specification and is likely to be subject to change before the final version is produced for the launch of the qualification.

If you are using this qualification specification for planning purposes, please make sure that you are using the most recent version.

Section 1

About this qualification

Introduction

This qualification specification contains details of all the content required to complete this qualification.

To ensure that you are using the most up-to-date version of this qualification specification, please check the version number and date in the page footer against that of the qualification specification on QualHub.

If you advertise this qualification using a different or shortened name, you must ensure that students are aware that their final certificate will state the full regulated qualification title.

Support handbook

This qualification specification must be used alongside the mandatory support handbook on the qualifications page on QualHub, which contains additional supporting information to help with the planning, delivery and assessment, such as:

- definition of total qualification time (TQT)
- quality assurance
- staffing requirements
- assessment
- qualification support
- diversity and equality

This qualification specification contains all of the qualification-specific information you will need that is not covered in the support handbook.

Qualification summary	
Qualification title	NCFE CACHE Level 2 Certificate in Working in the Digital Support Sector
Qualification number (QN)	603/7483/4
Aim reference	60374834
Total qualification time (TQT)	237
Guided learning hours (GLH)	215, including TBC assessment time
Minimum age	16
Qualification purpose	The qualification is designed to equip students with the technical skills and knowledge to enter junior positions within the digital support sector or to progress their studies onto technical education at level 3
Aims and objectives	This qualification aims to: • focus on the study of the digital support sector • offer breadth and depth of study, incorporating a key core of knowledge • provide opportunities to acquire a number of practical and technical skills The objective of this qualification is to: • equip students with the core knowledge and a wide range of practical skills relevant to roles within the digital support services sector
Rules of combination	Students will undertake both areas of content 1(IT operations support) and area of content 2 (Building and maintaining a network). To achieve the qualification students must attain a minimum of a Pass grade in each of the 2 mandatory externally set, internally marked assessments
Grading	Pass/Merit/Distinction
Assessment method	Externally set and internally marked synoptic assesments
Progression	Students who achieve this qualification could progress to: • T Level Technical Qualification in Digital Support Services (Level 3) (Delivered By NCFE) • Level 2 and 3 IT Apprenticeships • Entry Level IT Technician, IT Support Assistant or other similar job roles
Regulation information	This is a regulated qualification. The regulated number for this qualification is 603/7483/4.

Funding	This qualification may be eligible for funding. For further guidance on funding, please contact your local funding provider.

Entry guidance

This qualification is designed for students who wish to develop technical skills and knowledge to enter junior positions within the digital support sector or to progress their studies onto technical education at level 3.

Entry is at the discretion of the centre. However, students should be aged 16 or above to undertake this qualification.

There are no specific prior skills/knowledge a student must have for this qualification. However, students may find it helpful if they have already achieved a level 2 qualification.

Centres are responsible for ensuring that this qualification is appropriate for the age and ability of students. They need to make sure that students can fulfil the requirements of the qualification and comply with the relevant literacy, numeracy and health and safety aspects of this qualification.

Students registered on this qualification should not undertake another qualification at the same level with the same or a similar title, as duplication of learning may affect funding eligibility.

Achieving this qualification

To be awarded this qualification, students must achieve a minimum of a pass grade in each of the 2 mandatory externally set, internally marked assesments.

Areas of content

The following is a summary of the themes included within each area of content.

Area of content	Level	Theme
Area of content 1 - IT operations support	2	Working in the digital support services sector Problem solving and troubleshooting End user computing support

Area of content	Level	Theme
Area of content 2 - Building and maintaining a network	2	Principles of cyber security Working in a project team Networking

How the qualification is assessed

Assessment is the process of measuring a student's skill, knowledge and understanding against the standards set in a qualification.

This qualification has two assessments which are both externally-set by NCFE and internally-marked by centres. Both assessments contain extended tasks which assess knowledge and practical skills.

Students must attain a minimum of a pass in **both** assessments to achieve the Level 2 Certificate in Working in the Digital Support Sector.

The assessments have been designed to validly assess knowledge and skills through real-world tasks which reflect typical activities that students will be required to carry out when working in junior roles in the Digital Support Sector.

The assessments also contain the tasks that students will undertake if they progress onto higher level digital qualifications, including T Levels.

Assessment and grading guidance

The following table provides an overview of the themes covered in each assessment and assessment weighting.

Assessment	Weighting	Content assessed	Grade
1. IT operations support	TBC	• Working in the digital support services sector • Problem solving and troubleshooting • End user computing support	P/M/D
2. Building and maintaining a network	TBC	• Principles of cyber security • Working in a project team • Networking	P/M/D
Overall qualification grade: NYA/P/M/D			

This qualification has **2** assessments. They will be sat in separate assessment windows, which will be scheduled at different points during the academic year.

Assessment 1 - IT operations support

Assessment methods	Description
Extended tasks assessing knowledge and skills from area of content 1.	• Externally set by NCFE • Tasks are internally marked by centres using levels-based mark schemes • Externally quality assured by NCFE • The completion time for the assessment is TBC hours • The assessment will take place during a window in TBC, specified by NCFE • The assessment must be completed under controlled conditions and supervised by the teacher • The assessment will target assessment objectives TBC • The assessment requires TBC. Full details of the resources required for delivery are provided in Section TBC of the Qualification Specification and in the sample assessment materials

Assessment 2 - Building and maintaining a network

Assessment methods	Description
Extended tasks assessing knowledge and skills from area of content 2.	• Externally set by NCFE • Internally marked by centres using levels-based mark schemes • Externally quality assured by NCFE • The completion time for the assessment is TBC hours • The assessment will take place during a window in TBC, specified by NCFE

	• The assessment must be completed under controlled conditions and supervised by the teacher • The assessment will target assessment objectives TBC • The assessment requires TBC. Full details of the resources required for delivery are provided in Section TBC of the Qualification Specification and in the sample assessment materials

A result that does not achieve a Pass grade will be graded as a not yet achieved grade. Students may have the opportunity to resit. - TBC

For further information, centres should refer to the regulations for the conduct of external assessment and qualifications specific instructions for delivery documents available on the policies & documents page on QualHub. - TBC

Assessment objectives

The assessments are mapped against assessment objectives (AOs). These AOs provide a consistent framework for students and are applied synoptically, allowing students to show their knowledge, understanding and skills from across the full breadth and depth of the qualification.

The AOs that will be assessed against the content in this qualification are:

AO1	**Recall knowledge and show understanding** The emphasis here is for students to recall and communicate the fundamental elements of knowledge and understanding.
AO2	**Apply knowledge and understanding** The emphasis here is for students to apply their knowledge and understanding to real-world contexts and novel situations, including finding creative solutions.
AO3	**Analyse and evaluate knowledge and understanding** The emphasis here is for students to develop analytical thinking skills to make reasoned judgements and reach conclusions.
AO4	**Demonstrate and apply technical skills and processes** The emphasis here is for students to demonstrate the essential technical skills relevant to Data Analytics, by applying the appropriate processes, tools and techniques.

Assessment objective weightings

The table below shows the weightings for each of the AOs.

AOs	Assessment 1	Assessment 2	Overall weighting
AO1	TBC	TBC	TBC
AO2	TBC	TBC	TBC
AO3	TBC	TBC	TBC
AO4	TBC	TBC	TBC
Overall weighting of assessments	**TBC**	**TBC**	**100%**

The table below shows the weightings for the assessment tasks and the relevant AO(s) assessed in each task.

Assessment	Task	Task weighting	AO weighting
1	1	TBC	TBC
	2	TBC	TBC
	3	TBC	TBC
	4	TBC	TBC
	5	TBC	TBC
	6	TBC	TBC
	7	TBC	TBC
2	1	TBC	TBC
	2	TBC	TBC
	3	TBC	TBC
	4	TBC	TBC

Assessment windows

For assessments sat in windows, the centre must enter students to the specified window. This will be either a set date and time assessment or a window in which the assessment will be completed. - TBC

For qualifications with 'entry on registration', the centre will choose the assessment window at the point of registering the student. The last date that we will accept student work for a specified assessment window is by that assessment window's cut-off date. – TBC

Where qualifications have external assessment, centres must have entered students using the Portal to access the assessment. - TBC

Centres must enter students at least 10 working days in advance of the assessment window to avoid late entry fees. - TBC

If applicable, pre-release material will be made available by NCFE in advance of the assessment. All centres with entries will be notified.- TBC

The assessment material will be sent out in time for the start of the assessment window. Assessment materials must be kept secure at all times. - TBC

On completing their work at the end of the assessment window, students must sign the assessment declaration to authenticate the work produced as their own.

Awarding the final grade

Each assessment is graded pass, merit or distinction. The grades for both assessments are aggregated to give an overall grade of pass, merit or distinction for the qualification.

Students must achieve a minimum of a pass in both assessments to achieve the overall qualification. If a student receives a not yet achieved in either of the assessments, they will not achieve the overall qualification.

How grading works - link to grading calculator TBC

Worked example eg a table TBC

Descriptors

Descriptors have been written for the AO(s) assessed in each task. The descriptors are pitched at different levels in language and expectation and describe the student's performance at that band.

Assessors will use the descriptors to determine the banding decision for each AO in each task. This banding is based on the assessment of the evidence that the student submits for each task.

Overall grading descriptors

To achieve a pass, students will able to:

- TBC

To achieve a distinction, students will able to:

- TBC

Results - TBC

Resits – TBC

For further information on assessment, please refer to the user guide to the external quality assurance visit report.

Whilst NCFE does not anticipate any changes to our aggregation methods or any overall grade thresholds, there may be exceptional circumstances in which it is necessary to do so to secure the maintenance of standards over time. Therefore, overall grade thresholds published within this qualification specification may be subject to change.

Section 2

Areas of content

Areas of content

This section provides details of the mandatory teaching content for this qualification.

The numbering is sequential throughout the themes within the areas of content from the first knowledge statement, following on through the skills statements. The ‘K’ and ‘S’ indicate whether the statement belongs to knowledge or skills.

The explanation of terms explains how the terms used in the areas of content are applied to this qualification. This can be found in section 3.

For further information or guidance about this qualification, please contact our customer support team.

Area of content 1 - IT operations support

Theme title 1: Working in the digital support services sector

Knowledge - What you need to teach

The student must understand:

K1.1 Typical roles and responsibilities in the digital support services sector:

- security based roles:
  - maintaining day-to-day security of an organisation's network
  - searching and detecting potential security threats and managing any corrective actions
  - devising solutions and monitoring the performance of the solution to protect an organisation's network
  - maintaining cyber security compliance of the physical network
- network based roles:
  - setting up and configuring network devices and external network connectivity
  - using digital tools to troubleshoot and manage network performance
  - managing and maintaining physical and virtual networks
- end user support-based roles:
  - supporting and coaching users of digital technologies
  - troubleshooting and resolving user enquiries of digital technologies
  - installing and configuring client-based devices
- infrastructure based roles:
  - installing, managing, and supporting server hardware
  - installing, managing, and supporting storage and back up
  - creating and supporting virtual services
- database support roles:
  - creating, managing, and maintaining databases
- cabling based roles:
  - installing, terminating, testing, and certifying network cable infrastructure
  - troubleshooting issues with cable network

K1.2 How digital roles may differ in industry:

- software used (for example, in manufacturing 3D technologies are used for printing and in construction they are used for building designs)
- hardware used (for example, in retail electronic point of sale machines are used and in financial industry computers are used)
- different technical requirements from the end user (for example, manufacturing will be linked to production equipment and finance to electronic transactional systems)
- different environments (for example, cabling roles may be carried out in either an office environment or construction site or smaller vs larger companies)

K1.3 The importance of following professional standards in the workplace:

- to maintain safe working practices
- to comply to legislation, policies, and procedures
- to maintain positive working relationships
- to maintain organisational security and confidentiality

K1.4 The importance of CPD and keeping up to date with industry developments:

Theme title 1: Working in the digital support services sector

- to maintain up-to-date knowledge with current trends and emerging technologies
- to have awareness of current threats and vulnerabilities
- to keep own digital skills up to date (for example, the ability to deploy latest patches)
- to protect the organisation from outdated practice
- to support career progression

K1.5 Opportunities that may contribute to career progression:

- obtaining qualifications through further and higher education programmes
- undertaking apprenticeships
- experience in the workplace
- obtaining professional certification
- membership of professional bodies

K1.6 The importance of communication skills to digital employers:

- to enable technical information to be relayed to different stakeholders
- to reduce technical errors (for example, repeat ticket incidents from poor articulation) and incidents
- to enable ideas to be expressed clearly and concisely, using a variety of communication methods (for example, using a slide deck to support verbal communication)

K1.7 The importance of team working skills to digital employers:

- to enable solutions to problems be found quickly
- to enable the organisation to work efficiently
- to enable colleagues to learn from each other

Theme title 2: Problem solving and troubleshooting

Knowledge and skills - What you need to teach

The student must understand:

K1.8 The difference between problem solving and troubleshooting:

- troubleshooting:
  - process of diagnosing the source of a problem
- problem solving:
  - the process of finding solutions to difficult or complex issues

K1.9 Types of problems that can occur within the following specialisms:

- infrastructure (for example, server goes offline or device failure)
- digital support (for example, accidental deletion of a file, installing new software or connecting a new printer)
- cabling (for example, network cables are not properly installed)

K1.10 How these problems may impact on a business:

Theme title 2: Problem solving and troubleshooting

- cost (for example, cost of network downtime)
- time (for example, amount of time taken to restore loss of data)
- resource (for example, employees are not able to meet deliverables as online tools are unavailable or additional resources are required to solve the problem)
- reputation and profile (for example, decreased customer confidence)

K1.11 The importance of using a troubleshooting methodology:

- to establish a starting point
- to provide a systematic approach to problem solving
- to eliminate potential causes of a problem
- to reduce unnecessary time and cost of solving a problem
- to allow the potential causes of an issue to be analysed and discounted until the cause is found

K1.12 How to use OSI model to assist troubleshooting:

- using top down or bottom-up approach
- testing the devices or services on each layer
- establishing if the fault lies in a particular layer, then fixing the fault if required or moving on to the next layer

K1.13 The functions of the layers within the OSI model:

- Layer 7 – Application:
  - enabling users and applications to access the network services
- Layer 6 – Presentation:
  - connecting hardware and software resources
  - translating the data format so that it can be understood by the network
  - encrypting data
- Layer 5 – Session:
  - establishing a connection between processes running on different applications (for example, devices computers or servers)
  - managing connections and exchanges between applications (for example, set-up, coordination and termination)
- Layer 4 – Transport:
  - coordinating the size, rate, and destination of data transfer
- Layer 3 – Network:
  - routing the physical path of data over a network between devices such as routers, switches
- Layer 2 - Data Link:
  - transferring data between nodes and network entities
  - encoding and decoding data packets in bits
- Layer 1 – Physical:
  - providing the physical requirements to access the network
  - conveying the raw bit stream at the electrical and mechanical level

K1.14 Typical problems which can occur at each layer:

- Layer 7 – Application:
  - software bugs (for example, application crashing when sending data too quickly)
  - incorrect host names or address

Theme title 2: Problem solving and troubleshooting

- Layer 6 - Presentation:
  - issues with data encryption and decryption, (for example, invalid SSL certificates)
  - character code translation errors, (for example, the wrong keyboard layout)
- Layer 5 - Session:
  - issues with remote procedure calls (for example, RPC errors)
  - issues with network duplex (for example, full duplex, half duplex, etc.) resulting in connection errors
- Layer 4 - Transport:
  - issues with tunnelling such as Internet Protocol Security (IPsec errors)
  - issues with the Transmission Control Protocol (TCP errors)
  - issues with the User Datagram Protocol (UDP errors)
- Layer 3 - Network:
  - issues with routing (for example, routing protocol errors)
  - packet delivery errors (for example, dropped or lost packets)
- Layer 2 - Data Link:
  - Media Access Control (MAC errors)
  - Logical Link Control (LLC errors)
  - Point to Point Protocol (PPP) errors
- Layer 1 - Physical:
  - cable pin errors (for example, cables terminated incorrectly or with breaks)
  - bit rate control errors (for example, duplex, half duplex or simplex)

The student must be able to:

S1.15 Apply a structured approach to solving a problem:

- identifying the problem:
  - investigating the scope of the problem by asking open and probing questions
- gathering information regarding the likely cause:
  - identifying the area affected
  - looking for authorised and unauthorised changes that may have occurred
  - identifying the most likely source of the problem
- generating and evaluate possible solutions:
  - establishing if the issue is known and whether a solution has been documented
  - identifying alternative solutions to the problem
  - identifying the implications of applying the solutions
- establishing a plan of action and resolve the problem:
  - developing a timeline outlining the actions to be taken
  - identifying who is responsible for the actions
  - implementing planned solution
- recording findings, actions, and outcomes:
  - describing the issue identified using technical language
  - describing the solution implemented
  - evaluating the success of the solution

Theme title 3: End user computing support

Knowledge and Skills - What you need to teach

The student must understand:

K1.16 The functions of infrastructure and digital support services:

- infrastructure deals with the physical resources that are necessary to enable the use of data, computerised devices, methods, systems, and processes
- support services deals with the monitoring, maintenance and upgrades of software and computer systems

K1.17 The functions of the following infrastructure components:

- servers:
  - providing functionality for applications or devices
  - managing access to resources and devices (for example, files and folders or printers and scanners)
  - providing shared storage
- uninterruptable power supply (UPS):
  - ensuring consistent power supply to all components and prevent damage caused by spikes
  - providing battery power back up to the equipment for a short period allowing graceful shut down if the power fails
- air conditioning unit:
  - supplying cooling to all the data centre components to ensure they don't exceed maximum operating temperature
- environmental monitor:
  - monitoring general room conditions (for example, heat and moisture)
  - generating an alarm if the levels set are breached
- databases:
  - storing large amounts of data
  - facilitating the encryption of data to prevent compromise
- applications and services:
  - providing functionality to the end user (for example, email client)
- Cloud:
  - offering offsite back up and storage
  - offering offsite, cloud managed computer resource (for example, virtual servers or virtual desktops)
  - allowing for scalable storage without the need for additional hardware
- physical or virtual workstation (for example, desktop, laptop, tablet or virtual desktop infrastructure (VDI)):
  - allowing end users to access company applications and shared services within the network

K1.18 The functions of the following hardware components:

- central processing unit (CPU) processors:
  - receive data and provide an appropriate output through performing fetch, decode and execute instructions
- memory:
  - used to store information that can be used immediately
- storage:
  - used to store a retrieve permanent / semi-permanent data
  - hosts the operating system

Theme title 3: End user computing support

- input/output devices:
  - send and receive data from one system to another/others

K1.19 The functions of the following network components:

- router:
  - connecting multiple devices to the network, and to connect the devices to each other
  - sending data packets between networks
- switches:
  - operating on a logical level, ensuring quicker and more reliable data transfers and data can flow both ways (full duplex)
- hub:
  - operating on a physical level connecting multiple devices to a network
  - allowing these devices to share information
- bridges:
  - connecting multiple networks together
  - separating a network into segments and therefore increasing speed and reliability
- network interface cards (NICS):
  - connecting a computer to a computer network using a fibre or copper cable
- wireless access points (WAP):
  - broadcasting a signal through a physical device which allows Wi-Fi devices to connect to a network
  - extending the wireless coverage of an existing network and increase the number of users that can connect to it

K1.20 The functions of a range of servers:

- domain services:
  - storing data and managing user functions
  - controlling access to resources (for example, by username/password)
- web:
  - storing, processing and delivering web pages and services to computers that connect to it
- mail:
  - storing and encrypting incoming and outgoing mail for distribution to local users
- file:
  - sharing information over a network
  - providing disrupted storage, preventing against the failure of a storage device
- application:
  - allowing access to shared applications (for example, customer relationship management (CRM) or finance applications)

K1.21 Characteristics of different networks:

- Personal Area Network (PAN):
  - interconnected devices centred around an individual person (for example, an individual's computer and smartphone being connected)
- Local Area Network (LAN):
  - interconnected devices within a limited area (for example, a single office space)
- Wide Area Network (WAN):
  - interconnected devices spanning across a wide area (for example, multiple offices)
- Metropolitan Area Network (MAN):
  - interconnected devices within a specific geographic area (for example, a college campus)

Theme title 3: End user computing support

- Virtual Private Network (VPN):
  - secure site to site connection between distinct remote sites usually over the internet
  - traffic is encrypted and can mask device IP address
- Storage Area Network (SAN):
  - dedicated network of storage devices, providing high performance storage in high-speed traffic applications

K1.22 The function of different network protocols:

- Dynamic Host Configuration Protocol (DHCP):
  - assigning IP address to the network end points
- Domain Name System (DNS):
  - translating domain names into IP addresses
- Hypertext Transfer Protocol (http):
  - transmitting data over the internet
- Hypertext Transfer Protocol Secure (https):
  - transmitting encrypted data over the internet
- Transmission Control Protocol/Internet Protocol (TCP/IP):
  - suite of protocols allowing computers to communicate using data packets over a network

K1.23 Differences between virtual and physical networks:

- a physical network connects physical hardware that resides on the network
- a virtual network connects virtual machines and devices regardless of their location, using software

K1.24 The purpose of ticket management systems:

- storing and managing IT requests in a central location
- helping standardise input requests and workflow
- managing the request or incident from when they're logged to resolution
- categorising requests or incidents to analyse trends
- monitoring and reporting on service level agreements (SLAs) and metrics (for example, first-time fix and ticket volumes)

K1.25 Difference between a service request, an incident, and a problem:

- service requests are non-critical requests from a user for something to be provided, usually low risk (for example, request for additional software)
- incidents are usually unplanned interruption of service (for example, repair a corrupted file)
- problems are a cause or potential cause of one or more incidents

K1.26 Information which can be captured within a ticket:

- user details
- user details of the request or incident, including hardware or software details
- date and time the ticket was logged and the name of the assignee
- record of interactions and solutions attempted
- details of expected delays or delivery times
- resolution of the request or incident

Theme title 3: End user computing support

K1.27 The process of ticket management:

- receiving ticket
- categorising and assigning the request
- ensuring all information required is included within the ticket, respond to user if required
- assessing the urgency of the request and prioritise
- deciding on action to resolve the request or incident
- establishing if escalation to second line is required
- closing ticket and informing user of ticket resolution

K1.28 Considerations for escalation of a request or incident:

- the incident or request is outside scope of practice
- impact of the issue on the wider business
- the request or incident incident may impact multiple users
- recurrence of requests or incidents may require further investigation

K1.29 Purpose of a service level agreement (SLA):

- setting expectations for the resolution of the request or incident
- helping to prioritise workloads
- setting out the quality of service provided to a business
- setting out the services provided to a business

The student must be able to:

S1.30 Install and configure an operating system:

- selecting the appropriate operating system for a computer:
  - identifying user and system requirements including functional requirements
  - comparing the compatibility of the operating system with computer components
  - ensuring the OS meets the required performance of the computer (for example, CPU, memory and graphics support the proposed use)
  - selecting an approved distribution point with an approved version of the operating system
- installing a client/desktop operating system:
  - selecting appropriate installation location (for example, deleting current partitions)
  - accessing and installing the operating system software
  - executing the set-up application
  - following the set-up wizard instructions
  - creating admin account and password
  - identifying the features required for the purpose (for example, do you need all the personalisation settings for a work system)
- configuring a client/desktop system:
  - connecting to the internet
  - installing most recent updates and drivers
  - setting up a standard user account and password
  - installing an appropriate application (for example, internet browser)

S1.31 Be able to install and configure a local printer:

- connecting the printer to the appropriate computer port using the correct cable type

Theme title 3: End user computing support

- connecting the printer to the correct power supply
- powering on printer and allowing it to complete power on self-test
- downloading and installing the correct printer driver for the operating system
- printing a test page ensuring the printer has adequate supplies of toner, ink and paper where appropriate
- troubleshooting any errors, if necessary

S1.32 Be able to install and configure software (for example, updates, applications):

- identifying the suitable software to be installed (for example, utility software, or drivers)
- downloading an approved version of the software from an approved source
- opening the software programme, installing and following the steps according to the manufacturer's instructions
- checking software has been successfully installed
- documenting the version installed
- troubleshooting any errors, if necessary

S1.33 Be able to install an upgrade and a replacement component for a comuter:

- identifying compatibility of the component or upgrade for the computer (for example, form factor of a mother board)
- shutting down computer and removing power cable safely
- removing static build up (for example, using an anti-static mat and attaching anti-static strap to wrist and earth)
- opening the computer case safely
- removing old component according to manufacturers instructions, if applicable
- installing the upgrade or replacement according to manufacturer's instructions
- reassembling the computer case ensuring all parts are correctly secured
- powering on the computer
- checking and documenting the upgrade and replacement has been successful
- troubleshooting any errors, if necessary

Area of content 2 - Building and maintaining a network

Theme title 4: Principles of cyber security

Knowledge and Skills - What you need to teach

The student must understand:

K2.1 The importance of cyber security to:

- an organisation:
  - to comply with legislation and the impact of non-compliance
  - to protect data and information including customer data and company data
  - to maximise competitive advantage (for example, having advanced protection methods to increase customer confidence in the organisation)
- an individual:
  - to protect personal data such as card details, address or contact details
  - to prevent identity fraud

Theme title 4: Principles of cyber security

- to stay safe online
- to prevent attacks (for example, ransomware)
- to protect online presence (for example, 2-factor authentication to prevent account compromise)

K2.2 the potential impact of poor cyber security to:

- an organisation:
  - physical/digital (for example, damage to equipment, damage or loss of data or restriction or blocking of customer access)
  - financial (for example, fines and penalties or loss of income, damage to property or systems)
  - reputational (for example, loss of customers, damage to brand and business value)
- an individual:
  - physical/digital (for example, loss of access, damage to equipment or loss of personal data)
  - financial loss (for example, bank account compromise, damage to property or systems)
  - psychological (for example, embarrassment, stress or depression)
  - social (for example, loss of social status or friends**)**

K2.3 The purpose of legislation relating to cyber security:

- Data Protection Act (2018) including General Data Protection Regulation (GDPR) 2018:
  - to control the way information is handled and to give legal right to people who have information stored about them
  - to protect an individual's rights and freedoms relating to their personal data
  - to maintain the 7 principles for processing personal data:
    - lawfulness, fairness and transparency
    - purpose limitation
    - data minimisation
    - accuracy
    - storage limitation
    - integrity and confidentiality
    - accountability
- Computer Misuse Act (1990):
  - to protect personal data from unauthorised access and modification

K2.4 the importance of complying with legislation:

- maximising an organisation's reputation
- ensuring adherence to best practice in priority areas (for example, protection of servers)
- avoiding penalties and fines
- avoiding criminal prosecution

K2.5 Definitions of the following terms in relation to cyber security:

- vulnerability:
  - a weakness which can be exploited by a cyber-attack to gain unauthorised access to or perform unauthorized actions on a computer system
- threat:
  - an event which has the potential to adversely affect an organisations network and compromises the internal connected systems
- attack:

Theme title 4: Principles of cyber security

- an attempt by hackers to damage or destroy a computer network or system
- protection:
  - securing an organisations infrastructure, constantly remaining vigilant to threats and prevent any breaches or scanning for vulnerabilities and remediation
- recovery:
  - reinstating data or disaster recovery planning to maintain business continuity

K2.6 Different types of cyber threats:

- Distributed Denial of Service (DDoS):
  - shutting down a server, service or website making it inaccessible to its users
  - tactics may include overloading a server, service or website with requests which results in failure
- social engineering such as phishing or pharming:
  - manipulating people to disclose personal or organisation information
  - tactics may include deceptive emails, texts or websites, redirecting internet users from a real to a fake website
- hacking:
  - grey hat – looking for vulnerabilities in a system without permission
  - black hat – malicious attack of a systems security for personal gain
  - tactics may include keylogging to covertly record the keystrokes a person is making in order to steal information
- viruses such as malicious software or ransomware:
  - causing unauthorised disabling or compromise of a system
  - stealing data from business or individual devices
  - blocking access to devices or data and demanding payment
  - tactics may include introducing viruses through vulnerabilities in a network or commuting devices

K2.7 How cyber threats can occur:

- accidental:
  - downloading files from unreliable sources onto an organisation's network
  - opening a phishing email or hyperlink
  - having a weak password policy
  - using the same password for multiple accounts
  - writing passwords down where they can be easily found
- intentional:
  - disclosing passwords and other information to unauthorised individuals
  - purposeful introduction of a virus onto an organisations network
  - targeting an attack on an organisation's network

K2.8 Sources of, and potential reasons for, cyber threats:

- internal, for example:
  - individual employed by a company (such as, a disgruntled employee)
  - contractor (such as, a lack of awareness of organisational security)
  - customer (such as, hacking into an unsecure network for personal gain
- external, for example:
  - competitor (such as, denial of service attack to stop customer's using their service)
  - hacker (such as, gaining access into a complex secure system for notoriety)
  - terrorists and organised crime groups (such as, enabling promotion of the group or cause)

Theme title 4: Principles of cyber security

- nation states (such as, disrupting economic activity or further their agenda)

K2.9 Logical protection measures and how they may improve cyber security:

- username and password:
  - restricting access to systems
- 2-factor authentication:
  - adding an extra layer of protection, making it more difficult for attackers to gain access to information or online accounts
- anti-virus software:
  - detecting, blocking, or preventing virus attacks
  - removing viruses, malware, or ransomware
  - providing end point detection and response
  - warning users of dangerous or unsecure websites
  - protecting online accounts with password encryption
- endpoint detection and response (EDR)
  - actively scanning assets for any unusual activities
- firewalls:
  - filtering unwanted traffic
  - providing a controlled inbound access to systems such as remote desktops
- encryption at rest and in-transit:
  - protecting sensitive data
- secure back up of data:
  - reducing the threat of data loss because of a cyber-attack

K2.10 Physical protection measures and how they may improve cyber security:

- Closed Circuit Television (CCTV):
  - deterring or preventing unauthorised access to buildings or secure areas
- access controls (for example, radio-frequency identification (RFID) badges or keypads):
  - preventing or limiting access
- staff training:
  - increasing awareness and responsibilities of cyber threats

K2.11 Methods of maintaining cyber security:

- managing user privileges for example removing permissions from ex-employees
- scheduling scans to identify any suspicious files and move them
- using vulnerability scanning to ensure any system weaknesses are highlighted and remediated
- creating user accounts allows activity to be attributed to an individual and allows levels of access to be granted to authorised users
- monitoring network activity logs for unusual activity and respond to anomalies effectively
- checking for and installing system and security updates

The student must be able to:

S2.12 Set up cyber security controls:

- create user accounts on a client computer:
  - adding an account
  - adding a username

Theme title 4: Principles of cyber security

- setting up strong passwords on user accounts with password reminders and secret questions
- following sequential steps to complete the set up

- install anti-virus software and run a scan:
  - selecting the recommended antivirus software from an approved source
  - following sequential steps to install the antivirus software on to the device
  - recording antivirus software version and date of scan
  - running an initial scan
  - scheduling a recurring scan
- set up file permission:
  - selecting the resource to change permissions
  - selecting the users or group you wish to set the permissions for
  - selecting the appropriate permission level (for example, using active directory groups and policies to control and limit access)

Theme title 5: Working in a project team

Knowledge and skills - What you need to teach

The student must understand:

K2.13 The roles and responsibilities of a project team:

- project board:
  - being responsible for overall project
  - agreeing to the commencement and closure of projects
- project manager:
  - planning and coordinating project activity
  - managing resources, including staff and budget and project documents
  - allocating work to team managers
  - liaising with other stakeholders (for example, external suppliers)
  - managing risks and issues
  - reporting progress including status updates
- team manager/leader:
  - managing the day-to-day workload of the team
- team member:
  - carrying out the project tasks
- project stakeholders:
  - providing input into project requirements
  - using or purchasing the project outputs

K2.14 The aims of different phases of a project:

- initiation:
  - generating and evaluating a problem to be solved or an opportunity for improvements
  - agreeing the project scope
  - agreeing to proceed with the project
  - identifying what needs achieved at the end of the project
  - setting milestones/sprint times
  - identifying resources that are available to the project
  - identifying potential stakeholders

Theme title 5: Working in a project team

- planning:
  - exploring in detail how objectives will be achieved in terms of:
    - individual responsibilities
    - resources
    - timescales
  - gathering the requirements of the project and prioritising
- control:
  - performing the planned work
  - monitoring and controlling the work being completed within the project
- implementation:
  - rolling out the output produced by the project
- review:
  - reviewing project outcomes
  - investigating lessons learned
  - exploring what could be improved

K2.15 The importance of using milestones in a project:

- breakdown the project into manageable pieces
- identify how long a project may take to complete
- to allow for the tracking of progress
- to identify early on if a project is going off track
- to manage priorities and deadlines

K2.16 The purpose of common documents used within a project:

- project plan:
  - breaks down the project into tasks that can be assigned to a group or individual and be tracked to completion
- business case:
  - highlights the case for change
  - makes the case for the project being undertaken, including:
    - financial justification
    - identifies the problem or improvement looking to be addressed
    - intended project outputs or results
    - availability of the output or results
  - identifies the project scope, specifically stating what is in-scope and what is out of scope
- risk register:
  - ensures that all risks or issues are recorded, managed, and monitored throughout the project
- product description:
  - describes the output or 'product' the project is seeking to deliver, including:
  - features and benefits of the output or product
  - functionality of the output or product

K2.17 How risks can be categorised within a project:

- numerical system:
  - risks are assigned scores based on:
    - the likelihood of the risk occurring (for example, 1 to 3, 3 being highly likely to occur)
    - the severity of impact if risk occurs (for example, 1 to 3, 3 being high impact if the risk event were to occur)

Theme title 5: Working in a project team

  - the 2 scores are then multiplied to get an overall risk score
- RAG rating:
  - risks are determined using a traffic light system
    - red - high risk requiring immediate action or escalation
    - amber - moderate risk that needs to be observed closely
    - green - low risk with no immediate action required

K2.18 The principles of risk escalation within a project:

- assigning risk tolerances to roles within the project group:
  - within tolerance - agreed level of risk that is acceptable to the role
  - outside of tolerance: risks that exceed agreed tolerance and must be escalated to the next role up (for example, team manager escalates to project manager)
- risk responses that could be applied:
  - accept: the impact of the risk is deemed acceptable
  - avoid: change the course of action to avoid the identified risk
  - mitigate: reduce the impact or probability of the identified risk
  - transfer: transfer the risk to a 3rd party

K2.19 The considerations to make when scoping a project:

- the goals of a project and project outputs
- the defined features and functions of the product trying to be achieved
- the number of business units the project effects
- the amount or breadth of work required for project success
- resource requirement (for example, costs and time)

K2.20 The benefits of project scoping:

- to fully understand the project requirements
- to ensure that issue being addressed is understood in full before proceeding with a project
- to provide information for inclusion in the business case

K2.21 The importance of establishing a clear project scope:

- to ensure the project sticks to the original agreed plan or goals
- to clearly define the outputs the project is looking to achieve
- to provide clarity on project roles and decision making
- to provide clarity on the approach to creating the required outputs

K2.22 Factors which may define the success of a project:

- the project was delivered on time
- the project was delivered to the agreed quality standards
- the outputs are fit for purpose
- the overall cost of delivering the output compared with budgeted costs (for example, did project come in under, on, or over budget)
- any additional unintended benefits (for example, through exploration of one system solution discovering a solution to a problem outside of the current projects scope)

The student must be able to:

Theme title 5: Working in a project team

S2.23 Produce a basic project plan:

- scope out project requirements, including:
  - identifying the resources required for the project, including staff
  - outlining the aims of the project
  - defining the project tasks, task durations and any task dependencies
  - planning the length of the project
- identify and record possible risks associated with the project, including:
  - the consequences if the risk is not addressed
  - categorising each identified risk (for example risk score or RAG rating)
  - providing proposed mitigation to address the risk
- identify and record key project milestones:
  - identifying key stages of project delivery (for example identifying appropriate software, testing on systems, staff training)
  - producing a timeline for the milestones
  - identifying the goals which are required to be met within each milestone (for example decide upon software to take forward)
  - identifying how long will it take to achieve each goal
- define the success criterion for the project:
  - identifying the specific criteria, the success of the project will be judged by (for example, the overall cost of the project, the project was delivered on time or the outputs are fit for purpose)

Theme title 6 Networking

Knowledge and Skills - What you need to teach

The student must understand:

K2.24 The purpose of the following network components:

- floor port:
  - to provide access to underfloor cables and sockets while keeping floors free from wiring
  - to provide a secure termination point for network wiring
- patch panel:
  - to allow the moving of signal flow to a server or switch connection of a network and removes the need for plugging and unplugging cables directly into a server
- cable containment:
  - to provide a stable and secure route for cables and provide protection from interference
- network cables:
  - to connect and transfer data and information between computers and devices in a network

K2.25 A range of factors that influence an organisation's network requirements:

- business need (for example, what is the main use or bandwidth requirement)
- budget (for example, cost constraints)
- physical space (for example, available space for the equipment)
- devices (for example, the number and types of device required)
- topology (for example, physical or logical topology)
- applications and needs (for example, software requirements)

Theme title 6 Networking

- security (for example, physical or logical security)

K2.26 Principal considerations when designing and constructing a network:

- safety of the network:
  - selecting the appropriate cable pathways
  - ensuring appropriate heating and ventilation
  - ensuring appropriate cable selection and protection
- performance:
  - establishing required network bandwidth
  - ensuring correct cable lengths
  - establishing number of users and devices which requires access to the network
  - avoiding excessive manipulation of cables (for example, bending)
  - checking quality and reliability of connectors
  - ensuring adequate power supply for the network
- security requirements:
  - establishing a data centre or server room with restricted access
  - ensuring panels, data panels etc. are locked
  - restricting or removing chance of outside interference with cables
  - installing environmental controls (for example, environmental monitoring for fire or water)
- best practice approaches:
  - producing a full network diagram showing all components
  - labelling cables for easier identification
  - keeping cable organised to prevent restricted air flow
- legal and regulatory requirements:
  - complying with relevant legislation and ISO requirements

K2.27 Purpose of a network diagram:

- to provide a schematic or map to illustrate the nodes and connections within a network (network architecture)

K2.28 Common symbols used when creating a network diagram:

- server
- router
- cloud
- switch
- bridge
- access points (for example, WIFI access point)
- terminal (for example, network computer)
- network printer
- network scanner
- firewalls
- external connectivity (for example, internet)

K2.29 Purpose of network topology diagram:

- to identify the logical data flow through a network
- to determine the required routes for traffic
- to determine placement of firewalls – to protect the internal network

Theme title 6 Networking

- to determine the component placement is in line with the required use (for example, don't connect a router directly to a server)

K2.30 Characteristics of different network topologies:

- bus:
  - all nodes are directly connected, every station receives all traffic, and all traffic has the same priority
- ring:
  - the nodes are connected in a closed loop configuration
  - connected directly to the adjacent devices
- star:
  - used in LAN network
  - all nodes are connected to a central connection point
- full mesh:
  - all nodes are connected to each other this means that the information can travel directly to other devices
  - commonly used for wireless networks

K2.31 Advantages and disadvantages of different network topologies:

- bus:
  - advantages: easy to install, cheap
  - disadvantages: doesn't offer a secured connection if main cable fails the whole network will fail
- ring:
  - advantages: data collisions are reduced as data flow is only in one direction
  - disadvantages: if a device or cable is faulty then the whole network fails
- star:
  - advantages: the data is transmitted at high speed as there are no data collisions,
  - disadvantages: expensive to install compared to ring and bus and if the central hub fails so does the network
- full mesh:
  - advantages: can transmit high volumes of information, information can be rerouted, relatively reliable
  - disadvantages: expensive, complex to install

K2.32 Advantages and disadvantages of wired and wireless networks:

- wired network:
  - advantages:
    - allows more control over the nodes that connect to a network
    - usually more secure than a wireless network
    - can be faster than wireless and are less likely to be affected by interference
  - disadvantages:
    - difficult and expensive to maintain
    - large number of cables are required
    - users are only able to access the network via a cable or connect to a port therefore providing limited mobility for users
- wireless network:
  - advantages:
    - ease of adding new nodes without interrupting the network
    - users can access the network from anywhere, within a given range

Theme title 6 Networking

        - less cables to organise and maintain
    - disadvantages:
        - can be less secure than a wired network
        - usually slower than a wired network

K2.33 Considerations when choosing cables:

- type of network
- bandwidth (for example, the amount of data transfer required will dictate the category of cable)
- cost
- maximum distance of a cable run

K2.34 The strengths and limitations of different cable materials:

- copper:
    - strengths: reliable, relatively cheap and easy to install
    - limitations: problems with signal loss over long distances which may reduce transmission speeds, cable deteriorates over time
- fibre optic:
    - strengths: allows fast transmission of data over long distances
    - limitations: expensive and can break if they are bent

K2.35 Characteristics of fibre optic and different copper cables:

- fibre optic:
    - made from glass or plastic core surrounded in glass cladding
    - thin and flexible tubes
    - a single fibre can transfer 1 Petabytes per second over a distance of 50 kilometres
- twisted pair:
    - consists of two insulated conductors twisted together in the shape of a spiral
    - can be shielded or unshielded:
        - unshielded twisted pair (UTP) can support a high data rate
        - Shielded Twisted Pair (STP) have an extra covering which give extra protection from electromagnetic interference
- Coaxial:
    - inner conductor surrounded by an insulating layer, surround by a conductive shielding

K2.36 Differences between Cat 5e and Cat 6 cables:

- Cat 5e operating frequency is 100MHz and Cat 6 operating frequency is 250MHz
- Cat 5e can support data transfer speeds up to 1Gbps and Cat 6 can support data transfer speeds up to 10Gbps
- Cat 5e cables cost less than Cat 6
- Cat 6 offers higher network speeds over shorter distances

K2.37 How to select the correct cable type based upon proposed use:

- Cat 5e:
    - when runs are less than 100M between network hardware
    - when the max speed required is 1Mbs
- Cat 6:

Theme title 6 Networking

  - where runs are less than 100M between network hardware, however if you intend to run 10Mbps then Cat6 is limited to 55m
  - if you need > 55m at 10Mbps you will need to use Cat6a
  - when the max speed required is 10Mbs
- Untwisted Shielded Pair (UTP):
  - when the cables are not being run close to or in parallel with electrical wires
  - when the cables not being run next to equipment which generates electromagnetic interference
- Shielded Twisted Pair (STP):
  - when cables may be being run close to or in parallel with electrical wires
  - when cables may be being run next to equipment which generates electromagnetic interference
- fibre optic:
  - when very high data bandwidth required
  - when a core network is required to connect multiple switches or routers together
  - when high speed access to a SAN infrastructure is required

K2.38 Features of the following network cable connectors:

- RJ-45:
  - used for copper cables
  - to connect computers or other network elements to each other
  - features 8 pins to which wire strands are connected
- standard connector (SC):
  - used for fibre optic cable
  - push-pull connector that locks in place with a locking tab
- local connector (LC):
  - used for fibre optic cable
  - push-pull connector that locks in place with a latch
  - smaller than SC connectors

K2.39 The importance of network testing:

- to ensure the network is fully connected
- to ensure there is no short circuit
- to ensure the network is performing to expected levels
- to ensure the heat outlets are performing as expected
- to comply with ISO and regulatory standards
- to comply with standards to achieve certification

K2.40 The purpose of the following tools when fitting network cables:

- crimpers:
  - used for attaching termination jacks (RJ45) to a cable
- cable testers:
  - used to make sure the cable has no errors
- cable stripper:
  - used to strip insulation from the cable
- cable cutter:
  - used to cut the cable to the correct length
- punch down tool:
  - used to terminate the cable on to a patch panel or data socket

Theme title 6 Networking

- flooring panel lifters:
  - used to lift false floor covering so you can access cables/connectors under the floor
- light meters:
  - used to test the performance / error state of a fibre cable
- torches:
  - used to see under floors and inside data cabinets

The student must be able to:

S2.41 Be able to install and configure a network printer:

- accessing system settings for installing a network printer
- selecting printer from network printers available
- searching or adding a network port if there no network printers available
- connecting and installing the printer
- downloading or copying driver from driver location, if prompted
- printing a test page, ensuring the printers has adequate supplies of toner, ink and paper
- troubleshooting any errors, if necessary

S2.42 Be able to create a network diagram for a proposed network:

- identifying the technical requirements for the network, including:
  - type of network required (for example, LAN, WAN)
  - topology requirements
- identifying the principal components required:
  - hardware requirements
  - printer and application sharing requirements
  - external connectivity requirements and associated security measures (for example, firewalls)
- identifying the connections between the nodes in network

S2.43 Be able to prepare and terminate Cat 5e cables:

- selecting the suitable equipment
- preparing the cable:
  - measuring 1.5 inches from the end of the cable and striping the outer core at that point, leaving 1.5 inches of twisted wire
  - removing the pull cord if present
- arranging the wires into the correct sequence:
  - white orange
  - orange
  - white green
  - blue
  - white blue
  - green
  - white brown
  - brown
- inserting the wires into the correct connector:
  - collecting all the wires into a flat line, ensuring the wires stay in the correct order
  - measuring that the wires fit inside the RJ45 connector jack correctly
  - trimming the wires in a straight-line using wire cutters so they fit into the jack

Theme title 6 Networking
○ placing the wires into the jack, pushing forward until the wires are at the end, and the start of the insulation is inside the jack • using the crimping tool correctly to crimp the RJ45 connector • repeating the steps above for the other end of the cable **S2.44 Perform a connection test to confirm cable is live:** • connecting one end of the cable to the ‘transmit’ port, which could be labelled TX • connecting the other end of the cable to the ‘receive’ port, which could be labelled RX • starting the tester which will test each pin, lights up in sequence over both sets of LEDs • checking all 8 LED’s illuminate on both ends the cable • troubleshooting any errors, if necessary

Assessment strategy

Knowledge statements:

- assessors will need to be both occupationally knowledgeable and qualified to make assessment decisions
- internal quality assurers will need to be both occupationally knowledgeable and qualified to make quality assurance decisions

Competence/skills statements:

- assessors will need to be both occupationally competent and qualified to make assessment decisions
- internal quality assurers will need to be both occupationally knowledgeable and qualified to make quality assurance decisions

Section 3

Explanation of terms

Explanation of terms

Knowledge amplification words

This table explains how the terms used at level 2 in the areas of content are applied to this qualification (not all words are used in this qualification).

The student must understand:

Causes and effects:	**Definitions:**
How…	The specifics of how one factor can impact/influence/affect others
(Potential) implications of…	The possible future effects of a chosen course of action
Characteristics and comparisons:	**Definitions:**
Functions of…	The action or role performed by...
Principles of...	Underlying theory, rule or practice of...
Purpose of...	The underpinning reason for the existence of...
Importance of ...	The significance or value of...
Characteristics/features of…	Distinguishing features or qualities of...
Links/connections between…	Relationship between two or more things
Strengths of...	The advantages of...
Limitations of…	The restricting factors...
Differences between…	The opposing characteristics existing between two or more things
Functions and processes:	**Definitions:**
Stages of…	Point or period in a sequential process
The application of...	The use of…
How to...	The steps or actions required to...
Function of...	The role/purpose of...
Considerations when making decisions…	Factors to be taken into account...
Best practice for…	Optimal approach for...

Regulations and responsibilities:	**Definitions:**
Regulations (decide on level of required detail - overview of legislation vs full understanding)…	Rules set by an external authority/regulator
Roles of [employees/employers]…	The position or purpose of someone or something
Responsibilities of [employees/employers]…	Required actions and considerations
Scope of practice...	The limits of an individual's competence or responsibilities
Potential impacts of not adhering to regulations/legislation/codes of practice…	The consequences of not meeting minimum requirements
Potential impacts of not adhering to regulations/legislation/codes of practice…	The consequences of not meeting minimum requirements

Skills Verbs

This table explains how the terms used at level 2 in the areas of content are applied to this qualification (not all verbs are used in this qualification).

Apply	Link existing knowledge to new or different situations.
Assess	Consider information in order to make decisions.
Classify	Organise according to specific criteria.
Compare	Examine the subjects in detail looking at similarities and differences.
Define	State the meaning of a word or phrase.
Demonstrate	Show an understanding of the subject or how to apply skills in a practical situation.
Describe	Write about the subject giving detailed information.
Differentiate	Give the differences between 2 or more things.
Discuss	Write an account giving more than one view or opinion.
Distinguish	Show or recognise the difference between items/ideas/information.
Estimate	Give an approximate decision or opinion using previous knowledge.

Explain	Provide details about the subject with reasons showing how or why. Some responses could include examples.
Give (positive and negative points…)	Provide information showing the advantages and disadvantages of the subject.
Identify	List or name the main points (some description may also be necessary to gain higher marks when using compensatory marking)
Illustrate	Give clear information using written examples, pictures or diagrams.
List	Make a list of key words, sentences or comments that focus on the subject.
Perform	Do something (take an action/follow an instruction) that the question or task asks or requires.
Plan	Think about and organise information in a logical way. This could be presented as written information, a diagram, an illustration or other suitable format.
Provide	Give relevant information about a subject.
Reflect	Students should look back on their actions, experiences or learning and think about how this could inform their future practice.
Select	Choose for a specific purpose.
Show	Supply sufficient evidence to demonstrate knowledge and understanding.
State	Give the main points clearly in sentences.
Use	Take or apply an item, resource or piece of information as asked in the question or task.

Section 4

Additional information

Additional information

Resource requirements (You must select one of the following options)

There are no mandatory resource requirements for this qualification/these qualifications, but centres must ensure students have access to suitable resources to enable them to cover all the appropriate learning outcomes.

(For non-CBQ)

To assist in the delivery of this qualification/these qualifications, centres/students should have access to the following mandatory resource(s) <insert specific resources>.

Support for centres

Qualification factsheet

This document outlines the key information of this qualification for the centre, student and employer.

Useful websites

Centres may find the following websites helpful for information, materials and resources to assist with the delivery of this qualification:

- www.ncsc.gov.uk/
- www.apm.org.uk/

These links are provided as sources of potentially useful information for delivery/learning of this subject area. NCFE/CACHE do not explicitly endorse any learning resources available on these websites. For official NCFE/CACHE endorsed learning resources, please see the additional and teaching materials sections on the qualification page on QualHub.

Learning resources

We offer a wide range of learning resources and materials to support the delivery of our qualifications. Please check the qualifications page on QualHub for more information and to see what is available for this qualification.

Contact us

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DRAFT 1.0 May 2021
Information in this qualification specification is correct at the time of publishing but may be subject to change.

**** To continue to improve our levels of customer service, telephone calls may be recorded for training and quality purposes.***