

Qualification specification

**NCFE Level 4 Diploma: Digital Accessibility
Specialist**

QN: 603/7750/1



Qualification summary

Qualification title	NCFE Level 4 Diploma: Digital Accessibility Specialist		
Ofqual qualification number (QN)	603/7750/1	Aim reference	60377501
Guided learning hours (GLH)	510	Total qualification time (TQT)	1200
Minimum age	18+		
Qualification purpose	<p>This qualification is designed to give learners the knowledge and associated skills and behaviours required to work in a variety of roles in digital accessibility. It will also prepare learners to progress to further study and apprenticeships in this area.</p> <p>This qualification is designed for learners who want to upskill or retrain within the digital sector. It is also suitable for learners who want to further their studies in the digital sector. This higher technical qualification (HTQ) will give learners the skills, knowledge and behaviours to meet specific employer needs and industry requirements.</p>		
Grading	Pass/merit/distinction		
Assessment method	Occupationally Relevant Simulated Project Assessments (ORSPA): Externally set, internally assessed and externally quality assured. Learners must complete 4 ORSPAs as part of this qualification.		
Apprenticeship standards	<p>This HTQ content has been aligned with the Digital Accessibility Specialist apprenticeship standard.</p> <p>This HTQ is designed to be delivered as a standalone qualification which is an alternative to an apprenticeship. It does not form part of an apprenticeship.</p>		

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Section 1: introduction

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.

A higher technical qualification (HTQ) is a prestigious, kite-marked qualification aimed at meeting employers' needs and increasing learner engagement in level 4 or 5 technical education. For more information about HTQs, please visit www.instituteforapprenticeships.org/higher-technical-qualifications.

This HTQ content has been aligned with the Digital Accessibility Specialist apprenticeship standard.

This qualification aims to:

- provide the knowledge, skills and behaviours that are needed to enter occupations across the country
- be understood and recognised as high-quality by employers and so have national labour market currency
- give learners confidence that those qualifications are recognised by employers and are perceived to be a credible, prestigious, and distinct pathway

Aims and objectives

This qualification aims to:

- focus on the study of digital accessibility within the digital 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 objectives of this qualification are to provide learners with knowledge, skills and behaviours related to the following themes:

- digital accessibility landscape
- legal requirements
- manage projects accessibly
- guidelines for inclusive design
- digital assistive technologies
- user research
- quality assurance testing and auditing
- digital accessibility culture

Support handbook

This qualification specification must be used alongside the mandatory support handbook on the qualifications page on the NCFE website, which contains additional supporting information to help with the planning, delivery and assessment.

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

Entry guidance

This qualification is designed for learners who want to begin or advance their career within digital accessibility. It is also suitable for learners who wish to progress to further study in this specialised area.

Entry is at the discretion of the centre.

There are no specific prior skills/knowledge a learner must have for this qualification. However, learners may find it helpful if they have already achieved a level 3 qualification.

Centres are responsible for ensuring that all learners are capable of achieving the learning outcomes and complying with the relevant literacy, numeracy and health and safety requirements.

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

Achieving this qualification

Diploma

To be awarded this qualification, learners are required to successfully complete all mandatory themes.

To achieve this qualification, learners must successfully demonstrate their achievement of all learning outcomes of the content as detailed in this qualification specification.

Total qualification time (TQT) and independent learning hours for this qualification

The expectation for independent study (non-guided learning hours) is much greater at level 4 and 5 than for lower-level qualifications. This is reflected in the total qualification time (TQT) which has been set for this qualification. Independent study hours are essential for personal development and reflection, allowing learners to develop transferable skills such as time management, goal setting and self-motivation.

Some examples of activities which can be included in independent learning hours include:

- preparation for assessments
- practising skills
- reading articles/texts from a recommended reading list
- research and inquiry
- watching videos/listening to podcasts
- reviewing recordings/notes from study sessions
- peer activities, including peer feedback, meetings and discussions
- reflection

Progression including job roles

Learners who achieve this qualification could progress to the following:

- employment:
 - accessibility tester
 - digital accessibility specialist
 - accessibility consultant
 - accessibility specialist
 - accessibility subject matter expert
- further education:
 - related apprenticeships
- higher education

Staffing requirements

Centres delivering any of NCFE's qualifications must:

- have a sufficient number of appropriately qualified/experienced assessors to assess the volume of learners they intend to register
- have a sufficient number of appropriately qualified/experienced internal quality assurers to internally quality assure the anticipated number of assessors and learners
- ensure that all staff involved in assessment and internal quality assurance are provided with appropriate training and undertake meaningful and relevant continuing professional development
- implement effective internal quality assurance systems and processes to ensure all assessment decisions are reliable, valid, authentic, sufficient and current. This should include standardisation to ensure consistency of assessment
- provide all staff involved in the assessment process with sufficient time and resources to carry out their roles effectively

Resource requirements

Providers must ensure that the learner has access to the necessary materials, resources and workspaces for delivery and assessment.

- computer
- internet access
- software:
 - word processing (for example, MS Word, Google Docs)
 - presentation (for example, MS PowerPoint, Google Slides)
 - spreadsheet (for example, MS Excel, Google Sheets)
 - project management (for example, MS Project)
 - database software (for example, MS SQL, phpMyAdmin)
 - web browsers (for example, Chrome, Firefox, Edge)
 - assistive technologies (for example, VoiceOver, NVDA, Voice Control, Windows Speech Recognition)
 - front end web development tools (for example, Sublime Text, Notepad++) and/or website builders (for example, WordPress, Wix)
 - video/audio recording software and hardware
- data sources (for example, online, social media, analytical)
- research resources (for example, online, books, journals)

Real work environment (RWE) recommendation

Where the assessment requirements for a qualification allow, it is essential that centres wishing to operate a RWE do so in an environment that reflects a real work setting and replicates the key characteristics of the workplace in which the skill to be assessed is normally employed. This is often used to support simulation. Use of a RWE is not mandatory for this qualification.

How the qualification is assessed

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

The assessment consists of 4 components:

- ORSPA:
 - accessibility guidance report
 - legal compliance guide
 - design project
 - accessibility testing

Resubmission

For the occupationally relevant simulated project assessments, one resubmission will be allowed for learners who fail a component on the first attempt. In these circumstances, learners can only achieve a pass grade for the relevant components.

Resit

Learners may resit a component that is graded as not yet achieved. There is no limit on the number of resit attempts, however, the assessments are only offered once per year.

Learners must have completed all assessment components to gain the NCFE Level 4 Diploma: Digital Accessibility Specialist (603/7750/1).

All the evidence generated by the learner will be assessed against the standards expected of a level 4 learner for each learning outcome.

For the delivery of assessments please refer to the centre guidance and sample assessment materials found on our website.

External assessment

Each learner is required to undertake 4 external assessments.

External assessments are set by NCFE and marked by the centre. The assessment assesses learners' knowledge, skills and behaviours from across the qualification content.

Assessment	Themes	Knowledge and skills statements
ORSPA 1 - accessibility guidance report (20%)	Themes 1, 2, 4, 5, 8	K1.1, K1.3, K1.4, K2.1, K2.3, K4.1, S4.1, K5.5, K8.1, S8.1
ORSPA 2 - legal guide and presentation (20%)	Themes 1, 2, 5, 8	K1.2, K2.1, K2.2, S2.1, K5.1, K5.2, K5.3, K8.1, K8.2, S8.1
ORSPA 3 - design project (30%)	Themes 1, 2, 3, 4, 5, 8	K1.1, K.2.3, K3.1, K3.2, S3.2, K4.1, K4.2, S4.1, K5.1, K5.4, K5.5, K5.6, K8.1, S8.1
ORSPA 4 - accessibility testing (30%)	Themes 3, 5, 6, 7	S3.1, K5.2, S5.1, S5.2, S5.3, K6.1, S6.1, K7.1, K7.2, S7.1

The external assessment consists solely of or of a combination of:

- independent self-study (ORSPAs) – these are completed independently by learners

The assessment is administered under specified assessment conditions.

Assessment	Hours/timings
1: ORSPA - accessibility guidance report	10 hours (3 week window)
2: ORSPA - legal compliance guide	12 hours (4 week window)
3: ORSPA - design project	18 hours (4 week window)
4: ORSPA - accessibility testing	18 hours (4 week window)

For further information, centres should refer to the regulations for the conduct of external assessments and qualification specific instructions for delivery documents, available on the policies & documents page on the NCFE website.

Where qualifications have external assessment, centres must have entered learners using the Portal to access the assessment.

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

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

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

Enquiries about results

All enquiries relating to learners' results must be submitted in line with our enquiries and appeals about results and assessment decisions policy, which is available on the policies & documents page on the NCFE website.

Assessment windows

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

For qualifications with 'entry on registration', the centre will choose the assessment window at the point of registering the learner.

The NCFE Level 4 Diploma: Digital Accessibility Specialist consists of four assessments with the following windows:

Assessment	Window	Themes covered
1: ORSPA - accessibility guidance report	3 week window, starting the second half of November	Themes 1, 2, 4, 5, 8
2: ORSPA - legal compliance guide	4 week window, starting 1 February	Themes 1, 2, 5, 8
3: ORSPA - design project	4 week window, starting late March	Themes 1, 2, 3, 4, 5, 8
4: ORSPA - accessibility testing	4 week window, starting late May	Themes 3, 5, 6, 7

Assessment windows have been set to ensure centres have time to deliver relevant content before the assessment is sat. In each case, centres should review the coverage, including detailed coverage listed in the External Assessment table above, to plan their delivery.

Grading information

To achieve the qualification, learners must achieve at least a pass in all of the assessments.

The learner's final qualification grade is made up of an aggregation of their achievement in each of the assessments, based on the assessments' proportional importance to the final grade – this is represented as a percentage weighting.

Assessments are assigned an incremental weighting based on their percentage weighting. Each grade is assigned a points value: pass = 1, merit = 3 and distinction = 5. The value of each grade in each assessment is determined by multiplying the incremental value by the grade value.

Assessment	Percentage weighting	Incremental weighting	Distinction		Merit		Pass	
			Grade value	Points	Grade value	Points	Grade value	Points
1: Accessibility guidance report	20%	4	5	20	3	12	1	4
2: Legal compliance guide	20%	4	5	20	3	12	1	4
3: Design project	30%	6	5	30	3	18	1	6
4: Accessibility testing	30%	6	5	30	3	18	1	6

The points achieved in each assessment are summed and the total is used to determine the overall qualification grade based on the following values:

Points score	Grade
80–100	Distinction
40–79	Merit
20–39	Pass
0–19	NYA

Assessment grading

Assessment tasks for the ORSPAs are set by NCFE and assessed by the centre.

ORSPAs are judged by the centre using level of response grade descriptors, ranging from zero evidence (and therefore no achievement) through near pass, pass, merit and distinction standards. In each case, these descriptors are written to reflect the mid-point, rather than the borderline, of that standard.

This approach, including the use of a near pass grade, allows for a degree of compensation across the tasks and assessments, to ensure that the final grade fairly reflects the learner's achievement against the standard.

Overall grade boundaries are set at a mid-point between bands. For example, the overall pass boundary lies at the mid-point between bands 1 and 2, which are aligned to the grading standard associated with the near pass and pass grades respectively. The near pass grade allows learner evidence that may be

below the pass standard, but still represents some achievement, to be recognised in the final assessment grade.

The grade boundaries are aligned to the qualification level grade descriptors at pass and distinction. These descriptors have been written as a description of the typical or mid-point pass and distinction standard required in the context of the purpose of the qualification.

This means that a learner will have to demonstrate the grade standard in at least half of the tasks, with the remaining half being demonstrated at the band below, in order to achieve the minimum requirement for the grade. The grading model also allows a compensatory approach to be taken for all possible combinations of assessment decisions. For example, whilst a learner will achieve an overall distinction if they achieve 50% of tasks at distinction standard and 50% at merit, they can also achieve an overall distinction if they achieve a pass standard in some tasks but compensate for this by achieving more than 50% of tasks at distinction.

A grading calculator has been provided to produce assessment grades based on task-based assessment decisions. Centres should use this calculator to calculate their overall assessment grades before submission of grades to NCFE. Values have been provided in the tables below for information.

Assessment 1: ORSPA - accessibility guidance report

Task	Weighting	Band			
		N	P	M	D
Total	100%	20	40	60	80
1	50%	10	20	30	40
2	50%	10	20	30	40

Assessment 2: ORSPA - legal compliance guide

Task	Weighting	Band			
		N	P	M	D
Total	100%	20	40	60	80
1	40%	8	16	24	32
2	60%	12	24	36	48

Assessment 3: ORSPA - design project

Task	Weighting	Band			
		N	P	M	D
Total	100%	20	40	60	80
1	100%	20	40	60	80

Assessment 4: ORSPA - accessibility testing

Task	Weighting	Band			
		N	P	M	D
Total	100%	20	40	60	80
2	40%	8	16	24	32
3	40%	8	16	24	32
4	20%	4	8	12	16

Qualification grade descriptors

The following descriptors represent the standard expected of a learner at the relevant grade. They describe the mid-point or typical standard for that grade (they do not attempt to describe the borderline pass or borderline distinction standard – rather the mid-point or typical standard for that grade):

Grade	Demonstration of attainment
Pass	The evidence is logical and displays relevant accessibility knowledge in response to the demands of the briefs.
	The learner makes use of relevant knowledge and understanding, including how it informs practices of the digital sector, and demonstrates an understanding of accessibility, standards or approaches associated with these job roles.
	The learner makes use of facts/theories/approaches/concepts and is able to demonstrate a reasonable breadth and depth of knowledge and understanding.
	The learner is able to identify information from appropriate sources and makes use of appropriate information, including appraising the relevance of information, and can combine information to make decisions that are relevant to the context of the brief.
	The learner makes judgements and takes action, or seeks clarification with guidance, and is able to solve problems (which are routine in the context of the brief) in simulated scenarios.

	The learner is able to demonstrate skills and knowledge of concepts and techniques reflected in the digital sector and applies these across different organisational and audience requirements.
	The learner shows an understanding of problems that have not been seen before, using their knowledge and understanding to find solutions to problems and make justifications for strategies for problem solving.
	The learner demonstrates a reasonable understanding of impairments and potential accessibility barriers and resolution through identification of responsibilities and managing reasonable adjustments in accordance to accessibility guidelines.
	The learner is able to provide advice and guidance in relation to legislation and security regulations within the digital landscape.
	The learner can demonstrate a range of accessibility features to enhance web and mobile performance whilst showing an awareness for assistive technology.
	The learner shows an understanding of the principles of application testing using various testing methods to ensure accessibility standards and guidelines are adhered to.
Merit	The evidence is reasonably logical and displays relevant accessibility knowledge in response to the demands of the briefs.
	The learner demonstrates a range of knowledge and understanding, including how it informs practices of the digital sector, and demonstrates an understanding of accessibility, standards or approaches associated with these job roles.
	The learner demonstrates a range of facts/theories/approaches/concepts and able to evidence a good breadth and depth of knowledge and understanding.
	The learner is able to identify information from a wide range of sources and makes valid use of appropriate information, including appraising the relevance of information, and can combine information to make decisions that are relevant to the context of the brief.

	<p>The learner makes valid judgements and takes appropriate action, or seeks clarification with guidance, and is able to solve problems (which are in the context of the brief) in simulated scenarios.</p>
	<p>The learner demonstrates a range of knowledge, relevant concepts and techniques reflected in a relevant digital sector role and applies this across organisational and audience requirements to tackle problems that have not been seen before, using their knowledge to analyse and find suitable solutions to the problems.</p>
	<p>The learner can demonstrate a good understanding of problems that have not been seen before, using their knowledge and understanding to find relevant solutions to problems and make justifications for strategies for problem solving, with an ability to explain their reasoning.</p>
	<p>The learner demonstrates a range of knowledge of impairments and potential accessibility barriers and is able to provide a resolution through relevant identification of responsibilities and managing reasonable adjustments in accordance with accessibility guidelines.</p>
	<p>The learner is able to provide valid advice and guidance to ensure compliance with legislation and security regulations within the digital landscape.</p>
	<p>The learner can identify and implement a range of accessibility features to enhance web and mobile performance whilst showing a good awareness for assistive technology.</p>
	<p>The learner shows a good understanding of the principles of application testing, demonstrating a good range of valid testing methods to ensure accessibility standards and guidelines are adhered to.</p>
Distinction	<p>The evidence is highly logical and detailed and provides an informative and relevant response to the demands of the brief.</p>
	<p>The learner makes very effective use of relevant knowledge and has very good understanding of the practices of the sector and demonstrates a very well developed and effective understanding of the different perspectives and approaches associated with the digital sector.</p>
	<p>The learner makes good use of facts/theories/approaches/concepts, demonstrating breadth and depth of knowledge and understanding and selects appropriate skills/techniques/methods.</p>

	<p>The learner is able to accurately identify information from a wide and relevant range of sources and makes very good use of appropriate information, including effectively appraising the relevance of information and can combine information to make coherent and logical decisions that address the context of the brief well.</p>
	<p>The learner makes well-founded judgements and takes highly appropriate action, including seeking clarification and guidance and is able to use that to problem solve in a way that is relevant and effective (in the context of the brief), and can reflect on scenarios to draw useful conclusions.</p>
	<p>The learner demonstrates excellent knowledge of relevant concepts and techniques reflected in a relevant digital sector role and applies this across a variety of organisational and audience requirements to tackle problems that have not been seen before, using their knowledge to analyse and find suitable and lasting solutions to the problems.</p>
	<p>The learner can examine data and information in context and apply appropriate analysis in confirming or refuting conclusions and carrying out further work to justify strategies for solving problems, giving explanations for their reasoning that are thoroughly backed up and rationalised.</p>
	<p>The learner demonstrates very good knowledge of impairments and potential accessibility barriers and is able to provide a valid and reliable resolution through highly accurate identification of responsibilities and managing reasonable adjustments in accordance with accessibility guidelines.</p>
	<p>The learner is able to provide highly accurate and valid advice and guidance to ensure compliance with legislation and security regulations within the digital landscape.</p>
	<p>The learner makes well-founded judgements and takes highly effective action with regards to accessibility feature implementation to greatly enhance web and mobile performance whilst demonstrating an excellent awareness of assistive technology.</p>
	<p>The learner makes very effective use of relevant knowledge and has very good understanding of the principles of application testing demonstrating an excellent understanding of a wide range of relevant testing methods to ensure accessibility standards and guidelines are accurately adhered to.</p>

NCFE does not anticipate any changes to our aggregation methods or any overall grade thresholds; however, 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 changes.

Section 2: qualification content

This section provides details of the structure and content of this qualification.

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

Behavioural framework

Embedded within higher technical qualifications is the opportunity for learners to develop behaviours relevant to their chosen discipline, in line with the qualification's knowledge and skills.

The following table identifies opportunities to demonstrate the behaviours – embedded within the skills – that will be assessed as part of this higher technical qualification. Learners may also naturally demonstrate these behaviours elsewhere, beyond the listing below. All listed behaviours are subject to assessment.

B1: Driven in the field of accessibility and the wider digital sphere

B2: Proactively inclusive

B3: Manages time effectively and adheres to timescales when producing work product

B4: Inquisitive, innovative and forward-thinking regarding digital technologies which could have beneficial implications for disabled individuals

	Behaviours			
Themes	B1	B2	B3	B4
1: Digital accessibility landscape	K1.3, K1.4	K1.3, K1.4		K1.3, K1.4
2: Legal requirements	K2.3	K2.1, K2.3		
3: Managing projects accessibly		K3.1	K3.1, K3.2 S3.1, S3.2	
4: Guidelines for inclusive design	K4.1 S4.1	K4.1, K4.2 S4.1		K4.1, K4.2 S4.1
5: Digital assistive technologies	S5.3	K5.1, K5.2, K5.3, K5.4, K5.5 S5.1, S5.2, S5.3		K5.1, K5.2, K5.3, K5.4, K5.5, K5.6 S5.1, S5.2, S5.3
6: User research		K6.1 S6.1	K6.1 S6.1	K6.1 S6.1
7: Quality assurance testing and auditing		K7.2 S7.1		
8: Digital accessibility culture	K8.2, K8.3	K8.2, K8.3		K8.2, K8.3

Theme 1: Digital accessibility landscape

Knowledge – What you need to teach	
K1.1	<p>The learner must understand the states and categories of impairment and potential barriers to accessibility</p> <ul style="list-style-type: none"> • states of impairment: <ul style="list-style-type: none"> ○ permanent – a long-lasting impairment, unlikely to be resolved or improved ○ temporary – a prolonged impairment, likely to be resolved or improved ○ situational – an impairment brought about by the environment an individual is in • categories of impairment: <ul style="list-style-type: none"> ○ auditory: <ul style="list-style-type: none"> ▪ hearing loss, hearing impairment ▪ potential barriers to accessibility: <ul style="list-style-type: none"> • audio content without captions or transcripts • media players without caption display or volume control • web-based services requiring voice-only interaction • lack of supplementary sign language ▪ permanent (for example, deafness) ▪ temporary (for example, ear infection) ▪ situational (for example, a noisy environment) ○ visual: <ul style="list-style-type: none"> ▪ impaired vision, blind, colour blind ▪ potential barriers to accessibility: <ul style="list-style-type: none"> • user interface elements lacking in semantic information • elements that cannot be resized • videos without text or audio descriptions • images with no equivalent text for those using a screen reader ▪ permanent (for example, sight loss) ▪ temporary (for example, cataracts) ▪ situational (for example, direct bright light) ○ cognitive, learning, neurological and neurodiverse: <ul style="list-style-type: none"> ▪ impairment in mental functioning, communication and/or social skills ▪ potential barriers to accessibility: <ul style="list-style-type: none"> • complex navigation and page layouts • complex sentences • moving or blinking content • background audio that cannot be turned off ▪ permanent (for example, dyslexia) ▪ temporary (for example, stroke) ▪ situational (for example, environmental distraction) ○ motor: <ul style="list-style-type: none"> ▪ low or no motor function (for example, paralysis, low level of fine motor control) ▪ potential barriers to accessibility: <ul style="list-style-type: none"> • missing visual and non-visual orientation cues • tasks with insufficient time limits • controls with no equivalent text alternatives • websites without full keyboard support ▪ permanent (for example, one arm) ▪ temporary (for example, broken arm) ▪ situational (for example, carrying bags in one arm)

	<ul style="list-style-type: none"> ○ speech: <ul style="list-style-type: none"> ▪ speech impediment ▪ potential barriers to accessibility: <ul style="list-style-type: none"> • web-based services requiring voice-only interaction • phone calls as the only form of communication with an organisation ▪ permanent (for example, laryngectomy) ▪ temporary (for example, sore throat) ▪ situational (for example, exam conditions)
K1.2	<p>The learner must understand the principles and applications of data ethics and their implications for wider society</p> <ul style="list-style-type: none"> • principles of ethical data collection and usage: <ul style="list-style-type: none"> ○ transparency ○ fairness ○ accuracy ○ privacy ○ accountability • implications of the use of data, automation and artificial intelligence (AI) on wider society: <ul style="list-style-type: none"> ○ loss of privacy: <ul style="list-style-type: none"> ▪ digital footprint ▪ surveillance ○ changing behaviours: <ul style="list-style-type: none"> ▪ social skills ▪ scalable remote engagement, wider peer and professional networks ▪ creation and curation of a digital identity ○ communication access: <ul style="list-style-type: none"> ▪ resistance to technological change ▪ potential isolation: <ul style="list-style-type: none"> • transition to remote communication and services • limited digital skills or technology • remote location (for example, limited mobile data coverage) ▪ improved access to information (for example, educational, online employment searches, access to 24/7 NHS advice) • impact of assistive technologies' use of data, automation and AI for people with impairments: <ul style="list-style-type: none"> ○ implications: <ul style="list-style-type: none"> ▪ cost ▪ personal data ▪ policy
K1.3	<p>The learner must understand the purpose of reasonable adjustments and their importance for accessibility</p> <ul style="list-style-type: none"> • reasonable adjustments – actions by service provider to make digital content available to people with a range of impairments: <ul style="list-style-type: none"> ○ compliance with legislation and guidelines ○ avoidance of discrimination ○ ensures digital application is available to people with disabilities ○ increases usability
K1.4	<p>The learner must understand the responsibilities of managing reasonable adjustments digitally</p>

- | |
|---|
| <ul style="list-style-type: none">• anticipatory – pre-empt the needs of people with disabilities and required adjustments• continuing – continuous review of existing adjustments to meet requirements• reasonable – factors to consider in order to determine what is fair and sensible:<ul style="list-style-type: none">○ timeline for implementation○ budget○ size of website○ level of exclusion |
|---|

DRAFT

Theme 2: Legal requirements

Knowledge – What you need to teach	
K2.1	<p>The learner must understand the implications of conformance with international accessibility legislation for organisations and users</p> <ul style="list-style-type: none"> • Equality Act 2010: <ul style="list-style-type: none"> ○ Section 21(1) – prohibits discrimination by providers of services, goods and facilities ○ Section 20(6) – service providers must provide reasonable adjustments to ensure disabled people can access services • Public Sector Bodies (Websites and Mobile Applications) (No. 2) Accessibility Regulations 2018: <ul style="list-style-type: none"> ○ compliance of public sector websites or mobile apps with POUR ○ website must have accessibility policy • Accessible Canada Act C81 2018: <ul style="list-style-type: none"> ○ public websites must be accessible ○ identify, remove and prevent barriers to accessibility • Convention on the Rights of Persons with Disabilities (CRPD): <ul style="list-style-type: none"> ○ Article 9 Accessibility – removal of barriers to accessibility to information, communications and electronic services ○ Article 21 – Freedom of expression and opinion and access to information – appropriate measure for all people with disabilities to seek, receive and impart information • ISO 30071-1:2019 – Information technology: <ul style="list-style-type: none"> ○ code of practice for creating accessible information and communications technology (ICT) products and services • essential components of web accessibility: <ul style="list-style-type: none"> ○ Web Content Accessibility Guidelines (WCAG) <ul style="list-style-type: none"> ▪ legally enforced in Equality Act 2010 through provision of services including web services ○ Authoring Tool Accessibility Guidelines (ATAG): <ul style="list-style-type: none"> ▪ guidelines for accessibility of authoring tools ○ User Agent Accessibility Guidelines (UAAG): <ul style="list-style-type: none"> ▪ guidelines for accessibility of user agents • Americans with Disabilities Act (ADA) Section 508: <ul style="list-style-type: none"> ○ references WCAG ○ accessibility of electronic and information technology • EN301 549: <ul style="list-style-type: none"> ○ references WCAG ○ specifies accessibility requirements for ICT
K2.2	<p>The learner must understand the application of digital security regulations and case law to the wider digital landscape</p> <ul style="list-style-type: none"> • General Data Protection Regulation (GDPR)/Data Protection Act (DPA) 2018: <ul style="list-style-type: none"> ○ processes: <ul style="list-style-type: none"> ▪ data preparation ▪ data analysis ▪ data storage ▪ data disposal ▪ data dissemination ○ Principles of Privacy by Design:

	<ul style="list-style-type: none"> ▪ accountable business practices: <ul style="list-style-type: none"> • proactive not reactive • privacy by default • privacy embedded into design ▪ network infrastructure: <ul style="list-style-type: none"> • full functionality • end-to-end security ▪ information technology: <ul style="list-style-type: none"> • visibility and transparency • respect for user privacy • Copyright, Designs and Patents Act 1988: <ul style="list-style-type: none"> ○ processes: <ul style="list-style-type: none"> ▪ reuse of information ▪ reuse of media ▪ reuse of computer code and applications ▪ reuse of references • Digital Economy Act 2017: <ul style="list-style-type: none"> ○ processes: <ul style="list-style-type: none"> ▪ communication and sharing of data ▪ use and storage of intellectual property (IP) • precedent-setting case law: <ul style="list-style-type: none"> ○ National Association of the Deaf et al. v Netflix, Inc., 2012 <ul style="list-style-type: none"> ▪ violated ADA ▪ content inaccessible to those with hearing impairment ○ Robles v Domino’s Pizza LLC, 2019 <ul style="list-style-type: none"> ▪ violated ADA ▪ website inaccessible to screen reader users ○ Mallon v AECOM, 2021 <ul style="list-style-type: none"> ▪ AECOM failed to make reasonable adjustments for online job application process
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<p>K2.3</p>	<p>The learner must understand the management and integration processes for accessibility in an organisation</p> <ul style="list-style-type: none"> • management and integration: <ul style="list-style-type: none"> ○ a culture of accessibility: <ul style="list-style-type: none"> ▪ regular continuous professional development (CPD) ▪ presentations, question and answer (Q&A) and open forums ▪ organisational accessibility policies ○ reasonable adjustments for employees: <ul style="list-style-type: none"> ▪ Access to Work (AtW) ○ project and product delivery: <ul style="list-style-type: none"> ▪ prioritisation of accessibility within projects ○ continual inclusive usability testing ○ integrating accessibility specific to team disciplines (for example, development, design, test, product, business analysts, delivery)
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<p>Skills – What you need to teach</p>	
<p>S2.1</p>	<p>The learner must be able to apply digital security regulations to the role of an accessibility specialist</p> <ul style="list-style-type: none"> • review requirements of the task being carried out

	<ul style="list-style-type: none"> • assess implications of relevant digital security regulations: <ul style="list-style-type: none"> ○ GDPR/DPA 2018 ○ Copyright, Designs and Patents Act 1988 ○ Digital Economy Act 2017 • undertake task in compliance with identified relevant digital security regulations • review compliance of completed task
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Theme 3: Managing projects accessibly

Knowledge – What you need to teach	
K3.1	<p>The learner must understand the principles of project management and implementation of accessibility within project management</p> <ul style="list-style-type: none"> • project management life cycles: <ul style="list-style-type: none"> ○ linear ○ iterative ○ hybrid ○ incremental ○ evolutionary • project management methodologies: <ul style="list-style-type: none"> ○ waterfall ○ agile: <ul style="list-style-type: none"> ▪ Scrum ▪ Kanban ▪ eXtreme Programming (XP) ▪ Lean ○ PRINCE2 ○ Six Sigma • implementation of accessibility: <ul style="list-style-type: none"> ○ plan – integration of accessibility by design ○ design – design and user requirements considered at conceptual stage <ul style="list-style-type: none"> ▪ cost analysis ○ implementation – development of product in compliance with the planned design and timeframes <ul style="list-style-type: none"> ▪ risk analysis ○ testing and evaluation – continuous testing against user and accessibility requirements and guidelines ○ evolution – flexibility to support future adaptation
K3.2	<p>The learner must understand the stages and application of issue management</p> <ul style="list-style-type: none"> • stages of issue management: <ul style="list-style-type: none"> ○ identification ○ logging ○ categorisation ○ prioritisation ○ response and resolution • application of issue management: <ul style="list-style-type: none"> ○ triage: <ul style="list-style-type: none"> ▪ prioritisation:

	<ul style="list-style-type: none"> • importance of product • time/work required to resolve • users impacted and severity of impact • urgency • reputation management <ul style="list-style-type: none"> ▪ accessibility considerations • major incident management • root cause analysis: <ul style="list-style-type: none"> ○ response tools: <ul style="list-style-type: none"> ▪ 5 Whys (5Y) ▪ fishbone diagram ▪ Pareto chart ▪ Failure Mode and Effects Analysis (FMEA): <ul style="list-style-type: none"> • definition of the problem • data collection • cause identification • prioritisation of causes
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Skills – What you need to teach	
S3.1	<p>The learner must be able to apply root cause analysis to problem resolution</p> <ul style="list-style-type: none"> • select appropriate response tool • define and assess the problem • collect data to support analysis of problem • identify causes of problem • prioritise problem causes and determine root cause • select and implement solutions in line with timescales
S3.2	<p>The learner must be able to apply professional leadership skills with internal and external stakeholders to achieve a specific goal</p> <ul style="list-style-type: none"> • assess specific goal requirements • apply leadership skills to develop and maintain professional relationships with stakeholders in order to achieve specific goal: <ul style="list-style-type: none"> ○ communication skills as part of a team and individually: <ul style="list-style-type: none"> ▪ written ▪ verbal ○ interpersonal skills: <ul style="list-style-type: none"> ▪ assertiveness ▪ problem solving ▪ negotiation ▪ listening ▪ decision making ○ workload management skills: <ul style="list-style-type: none"> ▪ delegation ▪ project planning and time management • review outcomes against goal requirements

Theme 4: Guidelines for inclusive design

Knowledge – What you need to teach	
K4.1	<p>The learner must understand the principles of and conformance to Web Content Accessibility Guidelines (WCAG)</p> <ul style="list-style-type: none"> • WCAG and WCAG2ICT: <ul style="list-style-type: none"> ○ principles: <ul style="list-style-type: none"> ▪ perceivable to users: <ul style="list-style-type: none"> • text alternatives for non-text content (for example, braille, large print, text-to-speech) • time-based media (for example, pre-recorded audio/video) • adaptable • distinguishable ▪ operable navigation and components: <ul style="list-style-type: none"> • keyboard accessible • enough time (for example, to read/use content) • seizures and physical reactions (for example, flash and animation) • navigable • input modalities (for example, pointer gestures) ▪ understandable text content: <ul style="list-style-type: none"> • readable • predictable • input assistance (for example, to correct/avoid mistakes) ▪ robust to support interpretation: <ul style="list-style-type: none"> • compatible (for example, with current/future users, assistive technology) ○ conformance to WCAG requirements: <ul style="list-style-type: none"> ▪ Level A conformance: <ul style="list-style-type: none"> • web page meets all Level A success criteria ▪ Level AA conformance: <ul style="list-style-type: none"> • web page meets all Level A and Level AA success criteria ▪ Level AAA conformance: <ul style="list-style-type: none"> • web page meets all Level A, Level AA and Level AAA success criteria
K4.2	<p>The learner must understand the implications of standards and guidelines in the design and development of an application's user experience</p> <ul style="list-style-type: none"> • EN 301 549 European Standard for digital accessibility: <ul style="list-style-type: none"> ○ specifies accessibility requirements for information and communications technology • ADA Section 508: <ul style="list-style-type: none"> ○ eliminates barriers in information and communications technology • ISO9241 – Ergonomics of human-system interaction: <ul style="list-style-type: none"> ○ requirements for the underlying ergonomic principles of hardware and software • The 7 Principles of Universal Design: <ul style="list-style-type: none"> ○ equitable ○ flexible ○ simple and intuitive ○ perceptible information ○ tolerance for error ○ low physical effort ○ size and space

Skills – What you need to teach	
S4.1	<p>The learner must be able to apply accessibility guidelines in the design and development of digital solutions</p> <ul style="list-style-type: none">• review the requirements of digital solution• review requirements of relevant accessibility guidelines, standards and regulations• select appropriate platform for digital solution• design and develop solution:<ul style="list-style-type: none">○ incorporate The 7 Principles of Universal Design:<ul style="list-style-type: none">▪ equitable use▪ flexibility in use▪ simple and intuitive use▪ perceptible information▪ tolerance for error▪ low physical effort▪ size and space for approach and use○ apply accessibility features within productivities suites (for example, reading level, colour contrast)• apply and conform with the requirements of relevant accessibility guidelines, standards and regulations

Theme 5: Digital assistive technologies

Knowledge – What you need to teach	
K5.1	<p>The learner must understand a range of accessibility features within operating systems and applications and recommended utilisation for end users</p> <ul style="list-style-type: none"> • accessibility features: <ul style="list-style-type: none"> ○ display and readability features: <ul style="list-style-type: none"> ▪ font and icon size: <ul style="list-style-type: none"> • resizable ▪ colour: <ul style="list-style-type: none"> • high contrast • dark mode • colour inversion • colour filters/overlays ▪ screen resolution ▪ cursor: <ul style="list-style-type: none"> • size • blink rate ▪ motion reduction ▪ magnifier ▪ keyboard features: <ul style="list-style-type: none"> ▪ sticky keys ▪ keyboard layout ▪ onscreen keyboard ○ pointer features: <ul style="list-style-type: none"> ▪ snap to ▪ pointer speed ▪ pointer trails ▪ show location of pointer ▪ pointer schemes ▪ click lock ○ sound and speech features: <ul style="list-style-type: none"> ▪ volume ▪ screen reader ▪ standalone text-to-speech functionality ▪ speech recognition ▪ standalone speech-to-text functionality ▪ notifications ▪ visual alerts as an alternative to sound alerts ○ gesture control: <ul style="list-style-type: none"> ▪ touch and hold ▪ scroll ▪ zoom ▪ swipe ○ haptic technology: <ul style="list-style-type: none"> ▪ vibration ▪ rumble • considerations for recommendation: <ul style="list-style-type: none"> ○ end user requirements ○ end user knowledge and experience ○ system functions

	<ul style="list-style-type: none"> ○ system limitations ○ requirements of work being carried out
K5.2	<p>The learner must understand the process of developing mobile applications</p> <ul style="list-style-type: none"> • creation of installable software bundles: <ul style="list-style-type: none"> ○ native – developed using technologies native to the targeted OS: <ul style="list-style-type: none"> ▪ supports accessibility application programming interfaces (APIs) of targeted OS ▪ languages and tooling <ul style="list-style-type: none"> • iOS: <ul style="list-style-type: none"> • Swift • Objective-C • Xcode • Android: <ul style="list-style-type: none"> • Kotlin • Java • Android Studio ○ cross-platform native – developed using technologies non-native to targeted OS: <ul style="list-style-type: none"> ▪ supports accessibility APIs specific to products ▪ languages and tooling: <ul style="list-style-type: none"> • React Native • React • Xamarin • .NET • C# • Flutter • Dart ○ cross-platform hybrid – web application developed using web technologies to resemble a mobile application: <ul style="list-style-type: none"> ▪ supports Accessible Rich Internet Applications (ARIA) specification in addition to accessibility APIs specific to products ▪ languages and tooling: <ul style="list-style-type: none"> • Ionic • Cordova • HTML • CSS • JavaScript • communication with backend services: <ul style="list-style-type: none"> ○ transport mechanism: <ul style="list-style-type: none"> ▪ HTTP/HTTPS: <ul style="list-style-type: none"> • request and response • half duplex ○ status codes: <ul style="list-style-type: none"> ▪ success: <ul style="list-style-type: none"> • 200 ▪ redirection: <ul style="list-style-type: none"> • 301, 302, 303 ▪ error: <ul style="list-style-type: none"> • client: <ul style="list-style-type: none"> • 400, 401, 403, 404, 410 • server: <ul style="list-style-type: none"> • 500, 502, 503, 504 ○ HTTP methods:

	<ul style="list-style-type: none"> ▪ GET ▪ POST ▪ PUT ▪ DELETE ○ WebSocket protocol: <ul style="list-style-type: none"> ▪ event-driven ▪ full duplex ○ events: <ul style="list-style-type: none"> ▪ open ▪ closed ▪ message received ▪ error ○ formats: <ul style="list-style-type: none"> ▪ JavaScript Object Notation (JSON) ▪ Extensible Markup Language (XML) ○ authentication strategies: <ul style="list-style-type: none"> ▪ API keys ▪ OAuth ▪ Basic Auth (HTTP/HTTPS) • testing of application on target devices
K5.3	<p>The learner must understand the function and features of accessibility APIs within mobile application development</p> <ul style="list-style-type: none"> • accessibility APIs: <ul style="list-style-type: none"> ○ facilitates two-way communication between an OS or application and assistive technologies ○ allows assistive technologies to interact with onscreen elements ○ allows an application to manipulate the information received by assistive technologies • features: <ul style="list-style-type: none"> ○ iOS: <ul style="list-style-type: none"> ▪ user interface (UI) frameworks – provide out of the box accessibility when stock elements are used: <ul style="list-style-type: none"> • SwiftUI • UIKit ▪ attributes: <ul style="list-style-type: none"> • Label • Value • Hint ▪ common traits: <ul style="list-style-type: none"> • Button • Link • Image • SearchField • KeyboardKey • StaticText • Header • TabBar • Selected • NotEnabled • Adjustable • AllowsDirectInteraction • StartsMediaSession • UpdatesFrequently

	<ul style="list-style-type: none"> ▪ accessibility service and settings detection: <ul style="list-style-type: none"> • IsVoiceOverRunning • IsSwitchControlRunning • AccessibilityReduceMotion • AccessibilityDifferentiateWithoutColor ▪ hiding views ▪ custom actions ▪ magic tap ○ Android: <ul style="list-style-type: none"> ▪ stock widgets provide out of the box accessibility: <ul style="list-style-type: none"> • TextView • EditText • Button • RadioButton • CheckBox • Spinner ▪ attributes: <ul style="list-style-type: none"> • Android:contentDescription • Android:hint • Android:accessibilityHeading ▪ accessibility service and settings detection: <ul style="list-style-type: none"> • isEnabled
K5.4	<p>The learner must understand the components of website design and their application to enhance the accessibility of services</p> <ul style="list-style-type: none"> • HyperText Markup Language (HTML): <ul style="list-style-type: none"> ○ provides the structure of a web page ○ HTML elements label pieces of content (for example, header, paragraph) ○ HTML elements tell the browser how to display content ○ service accessibility enhancements: <ul style="list-style-type: none"> ▪ use of semantic HTML ▪ skip links ▪ groupings ▪ alt text ▪ headings ▪ links between form labels and their input • ARIA – a specification to manipulate what information is returned to assistive technologies querying a web browser: <ul style="list-style-type: none"> ○ states: <ul style="list-style-type: none"> ▪ checked ▪ current ▪ expanded ▪ hidden ▪ pressed ▪ invalid ▪ selected ○ properties: <ul style="list-style-type: none"> ▪ describedby ▪ label ▪ labelledby ▪ live (polite and assertive) ▪ required ▪ valuemin

	<ul style="list-style-type: none"> ▪ valuemax ▪ valuenow ▪ valuetext ○ roles: <ul style="list-style-type: none"> ▪ alert ▪ alertdialog ▪ application ▪ article ▪ banner ▪ button ▪ checkbox ▪ combobox ▪ complementary ▪ contentinfo ▪ dialog ▪ heading ▪ link ▪ list ▪ listbox ▪ listitem ▪ main ▪ menu ▪ menubar ▪ menuitem ▪ navigation ▪ option ▪ progressbar ▪ radio ▪ region ▪ search ▪ slider ▪ status ▪ tab ▪ tablist ▪ tabpanel ▪ tree ▪ treeitem • Cascading Style Sheets (CSS) – describes how HTML elements are displayed and styled: <ul style="list-style-type: none"> ○ service accessibility enhancements: <ul style="list-style-type: none"> ▪ colour contrast ▪ responsive design ▪ reflow ▪ font legibility • JavaScript (JS) – manipulates HTML and implements complex web page features: <ul style="list-style-type: none"> ○ service accessibility enhancements: <ul style="list-style-type: none"> ▪ dynamic content
<p>K5.5</p>	<p>The learner must understand the functionality of assistive technologies and their interaction with other digital technologies to enhance accessibility</p> <ul style="list-style-type: none"> • auditory: <ul style="list-style-type: none"> ○ hearing aids: <ul style="list-style-type: none"> ▪ amplifies volume ▪ interaction with digital technologies:

	<ul style="list-style-type: none"> • receives audio input from a device (for example, hearing loop, mobile phone) and amplifies volume • visual: <ul style="list-style-type: none"> ○ screen reader: <ul style="list-style-type: none"> ▪ converts text into synthesised speech or braille: <ul style="list-style-type: none"> • braille hardware (for example, braille display) ▪ audible content and keyboard navigability ▪ navigation strategies dependent on application: <ul style="list-style-type: none"> • tabbing • navigation by elements (for example, headings and links) • element lists ▪ interaction with digital technologies: <ul style="list-style-type: none"> • assesses OS and applications in use to present screen contents in an accessible format • provides a linear view of the content of the application in use ○ screen magnifier: <ul style="list-style-type: none"> ▪ manipulates a screen or part of a screen to enhance the visibility of the screen content ▪ interaction with digital technologies: <ul style="list-style-type: none"> • modifies graphical representation of screen content based on the user requirements (for example, increasing size of text, inverting colours) • cognitive, learning, neurological and neurodiverse: <ul style="list-style-type: none"> ○ text-to-speech reading functionality: <ul style="list-style-type: none"> ▪ reads text content aloud (for example, word processed documents, webpages) ▪ interaction with digital technologies: <ul style="list-style-type: none"> • processes text based on user requirements and reads aloud using a synthesised voice ○ reader views: <ul style="list-style-type: none"> ▪ filters webpage to display only key content ▪ interaction with digital technologies: <ul style="list-style-type: none"> • analyses the markup (HTML) and styling (CSS) of a webpage to determine important and unimportant pieces of content, then displays key content only • motor: <ul style="list-style-type: none"> ○ adapted pointing devices (for example, trackball, eye tracker): <ul style="list-style-type: none"> ▪ allows a user to manipulate a cursor with minimal physical movement ▪ interaction with digital technologies: <ul style="list-style-type: none"> • presents as a mouse to the host device whilst providing a control interface to the user that is more accessible than a conventional mouse ○ switch entry devices: <ul style="list-style-type: none"> ▪ provides an alternate navigation method for keyboard-navigable content ▪ interaction with digital technologies: <ul style="list-style-type: none"> • presents as a keyboard to the host device whilst providing a control interface to the user that is more accessible than a conventional keyboard • speech: <ul style="list-style-type: none"> ○ ARC apps: <ul style="list-style-type: none"> ▪ speaks either pre-set phrases or text that is inputted in real time by the user ▪ interaction with digital technologies: <ul style="list-style-type: none"> • installed onto a device using device-specific input methods to process and read aloud text
K5.6	<p>The learner must understand the security considerations related to the installation and utilisation of assistive technologies</p> <ul style="list-style-type: none"> • first party:

	<ul style="list-style-type: none"> ○ assistive technologies provided as part of a device or OS ● third party: <ul style="list-style-type: none"> ○ assistive technologies available for a device or OS that are not first party ● installation and utilisation: <ul style="list-style-type: none"> ○ software: <ul style="list-style-type: none"> ▪ OS settings (for example, colour filters, cursor size) ▪ assistive technology software (for example, speech recognition, screen reader) ▪ drivers for installation ○ hardware connectivity: <ul style="list-style-type: none"> ▪ wired (for example, USB port) ▪ wireless (for example, Bluetooth, WiFi) ● security considerations: <ul style="list-style-type: none"> ○ first or third party: <ul style="list-style-type: none"> ▪ number of vendors to be trusted ○ installation of software required for functionality of assistive technology ○ restricted permissions: <ul style="list-style-type: none"> ▪ misidentification of software version ○ outdated software: ○ restricted use of personal software and hardware ○ mitigation: <ul style="list-style-type: none"> ▪ contact IT department to arrange exception ▪ use of most up to date version of software ▪ use of first party assistive technology where possible
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Skills – What you need to teach	
S5.1	<p>The learner must be able to use hardware and software based assistive technologies</p> <ul style="list-style-type: none"> ● review requirements of use: <ul style="list-style-type: none"> ○ testing ○ learning ○ training others ● select and use appropriate assistive technology in line with requirements
S5.2	<p>The learner must be able to assess an individual’s access requirements and identify appropriate accessibility solutions</p> <ul style="list-style-type: none"> ● assess individual's access requirements: <ul style="list-style-type: none"> ○ ensure appropriate assessment style for individual ● review requirements and identify appropriate assistive technologies or adaptive strategies ● communicate identified assistive technologies and/or adaptive strategies to the individual: <ul style="list-style-type: none"> ○ ensure appropriate communication style for individual
S5.3	<p>The learner must be able to keep continuous professional development (CPD) updated using a range of appropriate sources</p> <ul style="list-style-type: none"> ● sources: <ul style="list-style-type: none"> ○ online content: <ul style="list-style-type: none"> ▪ social media ▪ blogs ▪ vlogs ○ conference content

	<ul style="list-style-type: none">○ email newsletters○ books and magazines
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Theme 6: User research

Knowledge – What you need to teach	
K6.1	<p>The learner must understand the process of hosting accessibility testing</p> <ul style="list-style-type: none"> • set-up and preparation: <ul style="list-style-type: none"> ○ audience recruitment: <ul style="list-style-type: none"> ▪ in line with specific demographic requirements or specialist population: <ul style="list-style-type: none"> • social media • snowball recruiting • specialist agencies • previous participants • user base ○ user logins and access to specialist software ○ user consent (for example, observers, photos/videos, screen recording) ○ user comfort: <ul style="list-style-type: none"> ▪ confidence with digital interaction ▪ use of user's own device or provision of device ▪ physical comfort of set-up ▪ pre-brief: <ul style="list-style-type: none"> • synopsis of activities expected to complete • sending out materials in advance ○ preparation time: <ul style="list-style-type: none"> ▪ pre-checking ○ creating discussion guide or scheduling document: <ul style="list-style-type: none"> ▪ questions ▪ prompts • inclusive usability testing: <ul style="list-style-type: none"> ○ moderated: <ul style="list-style-type: none"> ▪ facilitated session ○ unmoderated: <ul style="list-style-type: none"> ▪ participants answer questions independently ○ remote: <ul style="list-style-type: none"> ▪ participants and researcher are in separate locations ○ methodologies: <ul style="list-style-type: none"> ▪ concurrent think aloud: <ul style="list-style-type: none"> • participant thinks aloud as they complete the activity ▪ retrospective probing: <ul style="list-style-type: none"> • participant completes entire session unaided • participant is asked questions following completion of all tasks

Skills – What you need to teach	
S6.1	<p>The learner must be able to prepare and facilitate accessible activities to meet organisational and audience requirements</p> <ul style="list-style-type: none"> • recruitment of users in line with requirements: <ul style="list-style-type: none"> ○ demographic ○ number of participants to meet format requirements:

	<ul style="list-style-type: none">▪ workshops▪ surveys▪ interviews▪ inclusive usability testing▪ focus groups• prepare for activities in line with requirements:<ul style="list-style-type: none">○ environment○ resources○ equipment○ software• apply reasonable adjustments based on audience requirements:<ul style="list-style-type: none">○ auditory○ visual○ cognitive, learning, neurological and neurodiverse○ motor○ speech• run activities:<ul style="list-style-type: none">○ workshops○ surveys○ interviews○ inclusive usability testing○ focus groups• troubleshoot issues with assistive technologies:<ul style="list-style-type: none">○ identify and rectify issues:<ul style="list-style-type: none">▪ equipment▪ software• conclude activities:<ul style="list-style-type: none">○ gather and record feedback○ analysis of gathered data
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Theme 7: Quality assurance testing and auditing**Knowledge – What you need to teach****K7.1 The learner must understand the principles and applications of testing types**

- testing approaches:
 - automated testing:
 - tests carried out by an automated testing tool
 - manual testing:
 - tests carried out in a manual process by a tester
- testing types:
 - functional testing:
 - unit testing:
 - tests function of lines or pathways of code
 - tests that appropriate semantics are included
 - component testing:
 - tests function of a block of code
 - tests that appropriate semantics are included
 - integration testing:
 - tests how components interact and process functions
 - system testing:
 - tests an entire system, application or feature within an application:
 - integration of subsystems
 - tests compliance with design and accessibility requirements
 - acceptance testing:
 - tests that the application works as expected for end user
 - tests user accessibility requirements
 - regression testing:
 - tests functions to ensure changes have not caused new accessibility violations following implementation of a new application feature
 - non-functional testing:
 - performance testing:
 - tests function speed
 - load testing (for example, Distributed Denial-of-Service (DDoS))
 - stress testing
 - security testing:
 - authorisation and authentication
 - ethical hacking
 - usability testing:
 - tests usability of a system with end user (for example, intuitiveness, understandability, navigability)
 - compatibility testing:
 - browser testing – applications are accessible in different browsers and versions
 - OS testing – applications are accessible in different OSs and versions
 - device testing – applications are accessible on different devices
 - assistive technologies testing – applications operate as expected in different device and software combinations
- accessibility findings:
 - testing documentation:
 - test cases:

	<ul style="list-style-type: none"> • logging of defects • development of new code • retesting of new code ▪ accessibility reports ○ impact of testing documentation on accessibility: <ul style="list-style-type: none"> ▪ review of existing design system: <ul style="list-style-type: none"> • adaptations to comply with appropriate guidelines and standards ▪ review of processes and policies
K7.2	<p>The learner must understand the process of auditing digital applications against criteria for assistive technologies</p> <ul style="list-style-type: none"> • definition of audit criteria against standards and guidelines • definition of user journeys: <ul style="list-style-type: none"> ○ linear/non-linear: <ul style="list-style-type: none"> ▪ loops ○ common journeys and/or unavoidable pages (for example, settings) • automated testing: <ul style="list-style-type: none"> ○ testing against standards and guidelines ○ use of appropriate tools • manual testing: <ul style="list-style-type: none"> ○ testing using assistive technologies (for example, screen readers, screen magnifiers, speech-to-text, literacy aids) • collation of results: <ul style="list-style-type: none"> ○ categorisation of problems based on what is being tested: <ul style="list-style-type: none"> ▪ by success criterion ▪ by page • production of reports: <ul style="list-style-type: none"> ○ details of problems ○ recommendations for fixes ○ issuing of report to relevant stakeholders • creation of public accessibility statements detailing compliance and/or non-compliance

Skills – What you need to teach	
S7.1	<p>The learner must be able to carry out accessibility testing in line with accessibility standards and guidelines</p> <ul style="list-style-type: none"> • select and apply appropriate testing type • carry out tests against a design system • review and assess testing results • record testing results

Theme 8: Digital accessibility culture

Knowledge – What you need to teach	
K8.1	<p>The learner must understand the types of communication mediums and the requirements of a range of audiences</p> <ul style="list-style-type: none"> • communication mediums: <ul style="list-style-type: none"> ○ pre-recorded videos ○ slide presentations ○ direct message or email exchanges: <ul style="list-style-type: none"> ▪ small group or individual ○ in-person or remote training workshops ○ business reports: <ul style="list-style-type: none"> ▪ title page ▪ abstract ▪ table of contents ▪ introduction ▪ methods and findings ▪ conclusions and recommendations ▪ references ▪ appendices ○ huddles ○ whiteboard sessions • tailoring content of communication to meet audience requirements: <ul style="list-style-type: none"> ○ technical and non-technical language ○ simple language ○ formal and informal approaches ○ role-specific language ○ determination of individual preferences for disability language ○ condensed overviews and summaries ○ project-specific information sharing ○ technical demonstrations ○ layout: <ul style="list-style-type: none"> ▪ discoverable content ▪ left alignment of text ▪ unjustified text • audiences: <ul style="list-style-type: none"> ○ developers ○ designers (for example, visual, content, interaction, service) ○ user researchers ○ assistive technology users ○ testers ○ business analysts ○ product ○ management and other stakeholders
K8.2	<p>The learner must understand the process required to conduct training with a range of audiences</p> <ul style="list-style-type: none"> • process: <ul style="list-style-type: none"> ○ preparation: <ul style="list-style-type: none"> ▪ audience accessibility requirements

	<ul style="list-style-type: none"> ▪ reasonable adjustments (for example, content warnings for motion) ▪ checks and use of accessibility technologies and aids (for example, simple language, high contrast slides, screen readers) ▪ tailor content research to audience type (for example, managers, designers, developers, researchers, users) ○ post-training activity: <ul style="list-style-type: none"> ▪ gathering of feedback on the accessibility of training (for example, lessons learned)
K8.3	<p>The learner must understand the types of technologies and aids that can be applied when presenting information to meet audience requirements</p> <ul style="list-style-type: none"> • technologies and aids for presentation: <ul style="list-style-type: none"> ○ verbal or visual content warning (for example, animation, disturbing content, flashing) ○ describe onscreen content verbally ○ microphones ○ captions • target requirements: <ul style="list-style-type: none"> ○ awareness of accessibility requirements ○ adjustments to meet accessibility requirements ○ researching of key facts and figures relating to accessibility in order to inform use of technologies and aids

Skills – What you need to teach	
S8.1	<p>The learner must be able to create documents presented appropriately for a range of audiences</p> <ul style="list-style-type: none"> • review audience type and requirements • select appropriate communication medium for audience • research information (for example, statistics, terminology) to support document creation • create appropriate documentation to meet audience requirements: <ul style="list-style-type: none"> ○ business reports ○ business cases ○ usability testing findings ○ general information and documentation • present information in line with audience requirements • share information with audience through appropriate communication medium

Section 3: explanation of terms

This table explains how the terms used at level 4 in the content are applied to this qualification (not all verbs are used in this qualification).

Analyse	Break the subject or complex situations into separate parts and examine each part in detail. Identify the main issues and show how the main ideas are related to practice and why they are important. Reference to current research or theory may support the analysis.
Critically analyse	This is a development of 'analyse' which explores limitations as well as positive aspects of the main ideas in order to form a reasoned opinion.
Clarify	Explain the information in a clear, concise way showing depth of understanding.
Classify	Organise accurately according to specific criteria.
Collate	Collect and present information arranged in sequence or logical order which is suitable for purpose.
Compare	Examine the subjects in detail, consider and contrast similarities and differences.
Critically compare	This is a development of 'compare' where the learner considers and contrasts the positive aspects and limitations of the subject.
Consider	Think carefully and write about a problem, action or decision showing how views and opinions have been developed.
Demonstrate	Show an in-depth understanding by describing, explaining, or illustrating using examples.
Describe	Provide a broad range of detailed information about the subject or item in a logical way.
Discuss	Write a detailed account which includes contrasting perspectives.
Draw conclusions (which...)	Make a final decision or judgement based on reasons.
Evaluate	Examine strengths and weaknesses, arguments for and against and/or similarities and differences. Judge the evidence from the different perspectives and make a valid conclusion or reasoned judgement. Apply current research or theories to support the evaluation.
Critically evaluate	This is a development of 'evaluate' where the learner debates the validity of claims from the opposing views and produces a convincing argument to support the conclusion or judgement.
Explain	Apply reasoning to account for how something is or to show understanding of underpinning concepts. Responses could include examples to support these reasons.

Identify	Apply an in-depth knowledge to give the main points accurately (a description may also be necessary to gain higher marks when using compensatory marking).
Justify	Give a detailed explanation of the reasons for actions or decisions.
Reflect	Learners should consider their actions, experiences or learning and the implications of these in order to suggest significant developments for practice and professional development.
Review and revise	Look back over the subject and make corrections or changes based on additional knowledge or experience.
Summarise	Give the main ideas or facts in a concise way to develop key issues.

Section 4: support

Support materials

The following support materials are available to assist with the delivery of this qualification and are available on the NCFE website:

- evidence and grading tracker
- learning resources
- qualification fact sheet

Useful websites

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

- www.instituteforapprenticeships.org/
- www.legislation.gov.uk/
- www.w3.org/standards/
- www.webaim.org/

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

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