Digital Apprenticeship Guide

London Councils

Managed by

CHR Solutions

In partnership with

loti

[Draft] report, version 1.6
August 2022

Contents

1. Introduction 1

2. Digital apprenticeship standards 2

2.1 Digital apprenticeship standards 2

2.2 Digital apprenticeship standard off-the-job learning 3

2.3 Digital apprenticeship standard training provision 3

2.4 End point assessment 3

3. Overview of digital apprenticeship standards 5

Level 3 standards 8

3.1 Data Technician Apprenticeship (Level 3) 8

3.2 Software Development Technician Apprenticeship (Level 3) 8

3.3 Cyber Security Technician Apprenticeship (Level 3) 8

3.4 Digital Support Technician Apprenticeship (Level 3) 9

3.5 Network Cable Installer (Level 3) 9

3.6 IT Solutions Technician Apprenticeship (Level 3) 9

3.7 Information Communication Technician Apprenticeship (Level 3) 10

Level 4 standards 10

3.8 Data Analyst Apprenticeship (Level 4) 10

3.9 Data Protection & Information Governance Apprenticeship (Level 4) 10

3.10 Business Analyst Apprenticeship (Level 4) 11

3.11 Software Developer Apprenticeship (Level 4) 11

3.12 Software Tester Apprenticeship (Level 4) 11

3.13 DevOps Engineer Apprenticeship (Level 4) 12

3.14 Digital Accessibility Apprenticeship (Level 4) 12

2.15 Cyber Security Technologist Apprenticeship (Level 4) 12

3.16 Application Support Lead Apprenticeship (Level 4) 13

3.17 Network Engineer Apprenticeship (Level 4) 13

3.18 Digital Community Manager Apprenticeship (Level 4) 13

Level 6 standards 13

3.19 Digital & Technology Solutions Professional Degree Apprenticeship (Level 6) 14

3.20 Digital user experience (UX) professional Degree Apprenticeship (Level 6) 14

3.21 Data Scientist Degree Apprenticeship (Level 6) 14

3.22 Creative Digital Design Professional Degree Apprenticeship (Level 6) 15

3.23 Cyber Security Technical Professional Degree Apprenticeship (Level 6) 15

Level 7 standards 15
3.24 Digital and Technology Solutions Specialist Degree Apprenticeship (Level 7) 15
3.25 Artificial Intelligence (AI) Data Specialist Degree Apprenticeship (Level 7) 15
3.26 Game Programmer Degree Apprenticeship (Level 7) 16

4. Digital apprenticeship training providers 17

5. End-point assessment organisations 19

6. Funding of digital apprenticeships 21
6.1 Overview 21
6.2 The Apprenticeship Levy 21

1. Introduction

This guide provides an overview of digital apprenticeships currently available.

It includes descriptions and links to the digital apprenticeship standards available for delivery at levels 3, 4, 6 (degree) and 7 (masters).

Each digital standard is summarised, and the end point assessment methods are listed. Live links are provided to the standards, the registered training providers and end point assessment (EPA) organisations.

2. Digital apprenticeship standards

2.1 Digital apprenticeship standards

There are 26 digital apprenticeship standards available currently for delivery. All apprenticeship standards can be accessed from the full list published on the Government approved apprenticeship standards website: https://www.instituteforapprenticeships.org/apprenticeship-standards

Links are provided for each apprenticeship standard in section 2 of this guide. Links to training providers and end point assessment organisations are provided in sections 3 and 4 of this guide.

Key points about the digital apprenticeship standards:

- Employers set standards – working together to define occupational competence for defined occupations.
- Standards define what a fully competent person in that occupation should be able to do by the end of the apprenticeship.
- The standards define the minimum requirement for an apprentice to be assessed as being fully competent in that occupation.
- Standards define the outputs, in terms of duties, skills, knowledge and behaviours relevant to the occupational role.
- Competence is assessed through an employer-defined end-point assessment (EPA) process.
- Some apprenticeships can include vendor qualifications as defined by employers.
- Apprentices who pass are awarded a grade and completion certificate.

For each defined apprenticeship occupation, the key documented outputs are:

- Employer-defined standards of competence which provide a statement of what full competence looks like for that occupation.
- An employer-defined approach to end-point assessment which sets out how the competence of the apprentice will be assessed at the end of their apprenticeship.

Standards have been designed to be relevant and applicable to all employers of people in that occupation across a wide variety of different sectors and of different sizes. The approach to assessment has also been designed to be appropriate, relevant and feasible in a wide range of contexts while also ensuring consistency across these contexts.

The Institute for Apprenticeships and Technical Education (IFATE) approves and reviews apprenticeship standards and assessment plans. Once approved, and a funding band has been allocated, they are published on the IFATE website. For each published standard there are two key documents:

- *The standard*: this sets out the minimum and mandatory requirements. Any apprenticeship programme must include everything on the standard – although some employers may choose to do more. Apprentices must be able demonstrate the application of all of these skills, knowledge and behaviours to pass.
- *The assessment plan*: this sets out how the end-point assessment organisation will undertake end-point assessment and will award a grade.

These documents should be read together.

The subset of digital apprenticeship standards currently approved for delivery are shown in section 2.

2.2 Digital apprenticeship standard off-the-job learning

One of the most important apprenticeship rules is the requirement that every apprentice must spend at least 20% of their time on off-the-job training. Some employers have expressed concerns about that, but it seems that these concerns, at least in part, are due to a lack of understanding about what the requirement means in practice. Below, is a definition of what is eligible and some examples which should be helpful for providers and employers.

Definition - Off-the-job training must amount to 20% of the apprentice's contracted employment hours across the whole apprenticeship. So, it doesn't have to be the traditional day release model – the 20% could be in blocks or even hourly. It is up to the employer.

Off-the-job does NOT necessarily mean time spent in the classroom. The key is that it is time spent when the apprentice is not doing their normal work.

Things that CAN be included (examples)

- The teaching of theory (for example, lectures, role playing, simulation exercises, online learning)
- Practical training; shadowing; mentoring; industry visits; working with a different team to normal to expand experience; study time)
- Time spent with a mentor

Things that CANNOT be include (examples)

- English and maths (this is funded separately)
- Progress reviews or on-programme assessment required for the apprenticeship Standard
- Training which takes place outside the apprentice's paid working hours

2.3 Digital apprenticeship standard training provision

Training providers are listed on the register of training providers against each

apprenticeship standard they are approved to deliver training for. There are a mix of local and national providers offering a range of types of apprenticeship training delivery engagement, across face to face, blended and online.

A link to training providers for each digital apprenticeship standard is provided in section 3.

2.4 End point assessment

The approach to end-point assessment (EPA) has been designed to be appropriate, relevant and feasible for apprentices employed in SMEs as well as larger organisations and to ensure consistency across these contexts.

Employers have adopted the following broad principles to inform the approach to end-point assessment:

- Assessment is driven by the standards and covers the full competencies across knowledge, skills and behaviours.
- Assessment motivates the apprentice to achieve high standards in the quality of their work and encourages the development of sophisticated workplace behaviours to support their professional development. The determinants of pass and distinction grades give apprentices a clear goal to aim for.
- The assessment process is designed to add value to both apprentices and employers.
- The assessment will position the apprenticeship not just as a job but as the starting or continuation point for a career in the industry.
- The assessment tools are designed to replicate, as far as possible, live workplace scenarios and activity.
- An assessment methodology comprising a mixed set of tools enables the apprentice to play to their strengths and ensures that they are not disadvantaged by the restriction of one assessment method on one occasion only.
- Grading supports the apprentice to achieve the highest standards.

End-point assessment of digital apprenticeships – how it works in practice

Apprenticeship assessment all occurs at the end of an apprenticeship and is a service provided by an end-point assessment organisation. End-point assessment takes place toward the end of the apprenticeship, usually in the last 2-3 months. End-point assessment can only take place when the apprentice has completed all on programme learning, produced a portfolio of evidence and the employer determines that the apprentice is ready for the EPA.

End-point assessment is made up of a minimum of two types of assessment - each of which contributes something different to the assessment process. The types of end point assessment offered se include:

- Knowledge test
- Practical project
- Presentation
- Scenario test

- Professional discussion

A link to end point assessment organisations for each digital apprenticeship standard is provided in section 4.

Grading

- The grading takes after the interview
- It is based on all of the evidence that has been looked at in the end-point assessment.
- There is only one grade for the apprenticeship.
- The purpose of grading is to motivate apprentices and to differentiate between those at the minimum level and those who are significantly above the minimum level.

Grading is done by the independent assessor, based on a holistic assessment of everything the assessor has seen. Details of grading criteria are found in the assessment plan and/or occupational brief.

3. Overview of digital apprenticeship standards

The table overleaf shows the digital apprenticeship standards that are available for digital roles at Levels 3, 4, 6 and 7.

Level 3

- Data technician
- Software development technician
- Cyber security technician
- Digital support technician
- Network cable installer
- IT solutions technician
- Information communications technician
- Radio network technician

Level 4

- Data analyst
- Data protection and information governance practitioner
- Business analyst
- Software developer
- Software tester

- DevOps engineer
- Digital accessibility specialist
- Cyber security technologist
- Applications support lead
- Network engineer
- Digital community manager

Level 6

- Digital and technology solutions professional (integrated degree) – with 6 pathways - data analyst, business analyst, software engineer, cyber security analyst, IT consultant, network engineer
- Digital user experience (UX) professional (integrated degree)
- Data scientist
- Creative digital design professional (integrated degree)
- Cyber security technical professional

Level 7

- Digital and technology solutions specialist (integrated degree) – with 14 pathways
- Artificial intelligence (AI) data specialist
- Game programmer

Table 1 - Digital apprenticeship standards by theme and level

Topic	Level 3	Level 4	Level 6 (Degree apprenticeship)	Level 7 (MSc apprenticeship)
Multi-pathway				Digital and technology solutions specialist (integrated degree)
Data	Data technician	Data analyst	Digital and technology solutions professional (data analyst)	Artificial intelligence (AI) data specialist
		Data protection and information governance practitioner	Data scientist	Game programmer
Business Analysis		Business analyst	Digital and technology solutions professional (business analyst)	
Software Development	Software development technician	Software developer	Digital and technology solutions professional (software engineer)	
		Software tester		
		DevOps engineer		
User centred design		Digital accessibility specialist	Digital user experience (UX) professional (integrated degree)	
Creative			Creative digital design professional (integrated degree)	
Cyber Security	Cyber security technician	Cyber security technologist	Digital and technology solutions professional (cyber security)	
			Cyber security technical professional	
IT Support	Digital support technician	Applications support lead		
Infrastructure	Network cable installer	Network engineer		
	IT solutions technician			
Telecoms	Information communications technician			
Digital engagement		Digital community manager		

Level 3 standards

3.1 Data Technician Apprenticeship (Level 3) – last updated: 18/01/2022

The Data Technician Apprenticeship develops apprentices to be able source, format and present data securely in a relevant way for analysis using basic methods. It also gives apprentices a clear understanding of the current and future technologies that underpin the storage, processing, analysis and sharing of data.

For the Level 3 Data Technician Apprenticeship, the EPA consists of a Scenario Demonstration with questioning and a Professional Discussion underpinned by a portfolio of evidence, with the independent assessor.

On completion of the Level 3 Data Technician Apprenticeship, progression routes available to learners include:

- Level 4 Data Analyst
- Level 6 Data Scientist (integrated degree)
- Level 6 Digital and technology solutions professional (integrated degree)

3.2 Software Development Technician Apprenticeship (Level 3) – last updated: 05/04/2022

The Software Development Technician apprenticeship supports the apprentice to operate as a junior member of a software development team, to build simple software components (whether web, mobile or desktop applications) to be used by the team as part of larger software development projects or by end users. They will interpret simple design requirements for discrete components of the project under supervision.

For the Level 3 Software Development Technician Apprenticeship, the EPA consists of a Knowledge Test composed of 2 units, and a Presentation and Interview also composed of 2 units, with the independent assessor.

3.3 Cyber Security Technician Apprenticeship (Level 3) – last updated: 01/04/2021

The Cyber Security Technician Apprenticeship trains the apprentice to implement a series of technical, procedural and physical controls to monitor, detect and respond to a wide range of cyber security threats and maintain business continuity.

The apprentice will learn about cyber risk and mitigation with a focus on maintaining the confidentiality, integrity and availability of digital data. They will use their skills and experiences to feed into policy decisions of a cyber security awareness culture within the business.

For the Level 3 Cyber Security Technician Apprenticeship, the EPA consists of:

- A Scenario Demonstration with questioning
- A Professional Discussion underpinned by a portfolio
- A Knowledge Test of evidence

On completion of the Level 3 Cyber Security Technician Apprenticeship progression routes available to learners include:

- Level 4 Cyber Security Technologist
- Level 6 Digital and Technology Solutions Professional (Integrated Degree)
- Level 6 Cyber security technical professional (Integrated Degree)

3.4 Digital Support Technician Apprenticeship (Level 3) – last updated: 04/08/2022

The Digital Support Technician apprenticeship develops the apprenticeship to provide support to users to maximise the effective use of digital office technologies, productivity software and digital communications, including collaborative technologies and digital information systems.

This is an options-based apprenticeship with optional pathways for Digital Applications Technician and Digital Support Technician.

The EPA consists of a project with a report output and a professional discussion underpinned by a portfolio of evidence to be collected throughout the apprenticeship. The project will be based on suggested project titles and detailed specification.

On completion of the Level 3 Digital Support Technician Apprenticeship, progression routes available to learners include:

- Level 4 Network Engineer
- Level 4 Cyber Security Technologist
- Level 6 Digital and technology solutions specialist (integrated degree)

3.5 Network Cable Installer (Level 3) – last updated: 18/01/2022

The Network Cable Installer apprenticeship supports apprentices to install, terminate, test and certify network cable infrastructure components in accordance with National and International industry standards. This enables all types of digital devices including computers, servers, smart devices, security equipment, wireless access points, access control, building management systems and lighting systems to communicate between each other, internally, nationally and globally.

The EPA consists of a practical demonstration and questions together with a professional discussion underpinned by a portfolio of evidence to be collected throughout the apprenticeship.

On completion of the Level 3 Network Cable Installer apprenticeship, progression routes available to learners include:

- Level 4 Network Engineer
- Level 6 Digital and technology solutions specialist (integrated degree)

3.6 IT Solutions Technician Apprenticeship (Level 3) – last updated: 18/02/2019

The IT Solutions Technician apprenticeship develops the apprenticeship to design,

develop, test, and implement IT solutions including hardware infrastructure (such as servers and networks) and software (such as operating systems, middleware and applications)

This is an options-based apprenticeship with optional pathways for IT Software Solutions Technician and IT Hardware Solutions Technician.

The EPA consists of a knowledge test and project presentation with an interview.

On completion of the Level 3 IT Solutions Technician Apprenticeship, progression routes available to learners include:

Level 4 DevOps Engineer

Level 4 Software Developer

Level 4 Software Tester

Level 4 Network Engineer

Level 6 Digital and technology solutions specialist (integrated degree)

3.7 Information Communication Technician Apprenticeship (Level 3) – last updated: 14/05/2021

The Information Communication Technician (ICT) Apprenticeship trains apprentices to implement and maintain IT systems for their business.

This is an options-based apprenticeship with optional pathways for Support Technician, Network Technician and Digital Communications Technician.

The EPA consists of a Professional Discussion underpinned by a portfolio of evidence, along with a Project Report with questioning. The project may be based on a specific problem, a recurring issue, an idea/opportunity or providing a service.

On completion of the Level 3 IT Solutions Technician Apprenticeship, progression routes available to learners include:

Level 4 Network Engineer

Level 4 Cyber Security Technologist

Level 6 Digital and technology solutions specialist (integrated degree)

Level 4 standards

3.8 Data Analyst Apprenticeship (Level 4) – last updated: 01/06/2021

The Data Analyst Apprenticeship develops employees to extract, manipulate, model, visualise and present data to provide business insight.

The EPA consists of a Project Proposal with a presentation and questioning and a Professional Discussion underpinned by a portfolio of evidence with the independent assessor.

On completion of the Level 4 IT Data Analyst Apprenticeship, progression routes available to learners include:

Level 6 Data Scientist (integrated degree)

Level 6 Digital and technology solutions professional (integrated degree)

3.9 Data Protection and Information Governance Apprenticeship (Level 4) – last updated: 30/03/2022

The Data Protection and Information Governance Apprenticeship develops apprentices to manage personal and commercial data processing and provide regulatory and technical advice and guidance providing assurance to key stakeholders and regulators of compliance with information governance (IG) and data protection (DP) requirements.

The EPA consists of a project report with a presentation and questions, and a Professional Discussion underpinned by a portfolio of evidence with the independent assessor.

On completion of the Level 4 IT Data Protection and Information Governance Apprenticeship, progression routes available to learners include:

Level 6 Digital and technology solutions professional (integrated degree)

Level 6 Data scientist (integrated degree)

3.10 Business Analyst Apprenticeship (Level 4) – last updated: 01/06/2021

The Business analyst apprenticeship develops apprentices to conduct business modelling, identify system requirements and determine, and present, solutions that deliver business improvement and benefits.

The EPA consists of a Project Proposal with a Presentation and Questioning and a Professional Discussion underpinned by a Portfolio with the independent assessor.

On completion of the Level 4 Business Analyst Apprenticeship, progression routes available to learners include:

Level 6 Digital and Technology Solutions Professional (Integrated Degree)

3.11 Software Developer Apprenticeship (Level 4) – last updated: 14/07/2021

The Software Developer Apprenticeship trains apprentices to become competent software developers, working across the front-end, logic and data layers.

The EPA consists of a work-based Project and a Professional Discussion underpinned by a Portfolio with the independent assessor.

On completion of the Level 4 Software Development Apprenticeship, progression routes available to learners include:

Level 6 Digital and Technology Solutions Professional (Integrated Degree)

3.12 Software Tester Apprenticeship (Level 4) – last updated: 28/07/2022 (new standard introduced)

The Software Tester Apprenticeship trains apprentices on how to conduct various testing activities across the software development lifecycle to ensure the software meets the business' functional, security, performance, usability and other relevant quality requirements.

The EPA consists of Scenario-based tests with questioning and a Professional Discussion underpinned by a Portfolio with the independent assessor.

On completion of the Level 4 Software Tester Apprenticeship, progression routes available to learners include:

Level 6 Digital and Technology Solutions Professional (Integrated Degree)

3.13 DevOps Engineer Apprenticeship (Level 4) – last updated: 12/03/2020

The DevOps Engineer Apprenticeship trains the apprentice in the practices and process of developing, testing and deploying working software faster, more efficiently, and more reliably through automation and harmonisation of systems and tools. It provides a good understanding of software development practices, including the required programming/scripting skills and an understanding of live operations at the deployment end – on premises or cloud infrastructure, source control management and CI/CD implementation.

The EPA consists of a Project with Practical Assessment and a Professional Discussion underpinned by a Portfolio with the independent assessor.

On completion of the Level 4 DevOps Engineer Apprenticeship, progression routes available to learners include:

Level 6 Digital and Technology Solutions Professional (Integrated Degree)

3.14 Digital Accessibility Apprenticeship (Level 4) – last updated: 07/07/2021

The Digital Accessibility Apprenticeship trains the apprentice to provide advice on accessibility best practice, helping organisations (externally and internally) to meet organisational, national and international accessibility standards and collaborate to ensure an inclusive user experience and compliance with relevant legislation.

The EPA consists of a Work-based project report and presentation, a knowledge test, and a Professional Discussion underpinned by a Portfolio with the independent assessor.

On completion of the Level 4 Digital Accessibility Apprenticeship, progression routes available to learners include:

Level 6 Digital and Technology Solutions Professional (Integrated Degree)

Level 6 Digital User Experience (Integrated Degree)

3.15 Cyber Security Technologist Apprenticeship (Level 4) – last updated: 04/05/2021

The Cyber Security Technologist (CST) Apprenticeship trains the apprentice to implement a series of technical, procedural and physical controls to monitor, detect and respond to a wide range of cyber security threats.

The apprentice is trained in cyber risk and mitigation, maintaining the confidentiality, integrity and availability of digital data. They will use their skills to feed into policy decisions of a cyber security awareness culture within the business.

This is an options-based apprenticeship with optional pathways for Cyber Security Engineer, Cyber Risk Analyst and Cyber Defender and Responder.

- Cyber Security Engineer designs, develops and implements security solutions across a network
- Cyber Risk Analyst assesses, analyses and mitigates cyber-related risk
- Cyber Defender and Responder configures and monitors security systems and responds to incidents/security breaches

The EPA consists of a Scenario Demonstration with questioning, a project report, a knowledge test, and a Professional Discussion underpinned by a Portfolio with the independent assessor.

On completion of the Level 4 Cyber Security Technologist, progression routes available to learners include:

Level 6 Digital and Technology Solutions Professional (Integrated Degree)

Level 6 Cyber security technical professional (Integrated Degree)

3.16 Application Support Lead Apprenticeship (Level 4) – last updated: 9/11/2021

The Application Support Lead Apprenticeship equips the apprentice with the knowledge and skills to provide tactical advice, training and support on core technology applications (both hardware and software) to internal colleagues and external clients and customers to enhance and enable the delivery of application-based products and services.

The EPA consists of a project report with questions, a knowledge test, and a Professional Discussion underpinned by a portfolio of evidence with the independent assessor.

On completion of the Level 4 Application Support Lead Apprenticeship, progression routes available to learners include:

Level 6 Digital and Technology Solutions Professional (Integrated Degree)

3.17 Network Engineer Apprenticeship (Level 4) – last updated: 01/06/2021

The Network Engineer Apprenticeship develops apprentices to design, build and

secure multi-vendor networks, including how Networking Infrastructure is installed, secured and maintained both physical and software defined networks.

The EPA consists of a Simulated Assessment and questioning and a Professional Discussion underpinned by a portfolio of evidence with the independent assessor.

On completion of the Level 4 Network Engineer Lead Apprenticeship, progression routes available to learners include:

Level 6 Digital and Technology Solutions Professional (Integrated Degree)

3.18 Digital Community Manager Apprenticeship (Level 4) – last updated: 30/04/2021

The Digital Community Manager Apprenticeship trains apprentices to support facilitating and instigating direct communication online between the end user or customer and the organisation.

The EPA consists of a Scenario Test with questioning, and a Professional Discussion underpinned by a Portfolio with the independent assessor.

On completion of the Level 4 Digital Community Manager Apprenticeship, progression routes available to learners include:

Level 6 Digital and Technology Solutions Professional (Integrated Degree)

Level 6 standards

3.19 Digital and Technology Solutions Professional (Integrated Degree) Apprenticeship (Level 6) – last updated: 13/05/2019 (in revision)

The Digital and Technology Solutions Professional Degree Apprenticeship provides apprentices with the broad technical understanding to operate as part of a wider team working with specialists in the analysis, design, build, evaluation and security of software, data solutions, services and networks. This includes the ability to build business cases, work with end-users, and build the solution.

This is an options-based apprenticeship. In addition to the core programme there are six optional pathways for specialisations in Software Engineering, Data Analysis, Network Engineering, Business Analysis, IT Consulting or Cyber Security Analysis.

The EPA consists of a work-based project report and panel presentation underpinned by a Portfolio.

On completion of the Level 6 Digital and Technology Solutions Professional Degree Apprenticeship, progression routes available to learners include:

Level 7 Digital and Technology Solutions Specialist (Integrated Degree)

Level 7 Artificial intelligence (AI) data specialist

Level 7 Game programmer

3.20 Digital user experience (UX) professional (Integrated Degree) Apprenticeship (Level 6) – last updated: 16/02/2022

The Digital user experience (UX) professional Degree Apprenticeship develops apprentices' fundamental skills in user experience (UX) design and management. This includes how to investigate, analyse and design online interactions and the skills to deliver, improve and optimise digital products and services.

The EPA consists of a work-based Project Report and Presentation with Questioning, and a Professional Discussion underpinned by a Portfolio.

On completion of the Level 6 Digital user experience (UX) professional Degree Apprenticeship, progression routes available to learners include:

Level 7 Digital and Technology Solutions Specialist (Integrated Degree)

3.21 Data Scientist (Integrated Degree) Apprenticeship (Level 6) – last updated: 17/08/2018

The Data Scientist Degree Apprenticeship trains apprentices to address real-world data challenges and prepares them to confidently work with different types of data, formats and models from a variety of sources.

The EPA consists of a Knowledge Test, work-based Project Report and Presentation with Questioning, and a Professional Discussion underpinned by a Portfolio.

On completion of the Level 6 Data Scientist Degree Apprenticeship, progression routes available to learners include:

Level 7 Digital and Technology Solutions Specialist (Integrated Degree)

Level 7 Artificial intelligence (AI) data specialist

3.22 Creative Digital Design Professional (Integrated Degree) Apprenticeship (Level 6) – last updated: 04/02/2022

The Creative Digital Design Professional Degree Apprenticeship trains apprentices to produce compelling digitally enabled design solutions to internal and/or external clients, across a range of sectors and for a range of different contexts. They implement design concepts to develop and communicate new products and to provide design solutions utilising digital design technologies. They are responsible for creating digital design solutions for a wide range of areas including online services, installations, design for devices, interactive services and mobile applications.

The EPA consists of a Project Report and Presentation with Questioning, and a Professional Discussion underpinned by a Portfolio.

On completion of the Level 6 Creative Digital Design Professional Degree Apprenticeship, progression routes available to learners include:

Level 7 Digital and Technology Solutions Specialist (Integrated Degree)

3.23 Cyber Security Technical Professional (Integrated Degree) Apprenticeship (Level 6) – last updated: 22/11/2021

The Cyber Security Technical Professional Degree Apprenticeship trains apprentices to research, analyse, model, assess and manage cyber security risks. They also design, develop, justify, manage and operate secure solutions, and detect and respond to incidents. They work in accordance with applicable laws, regulations, standards and ethics.

The EPA consists of a Practical Test, and a Professional Discussion underpinned by a Portfolio.

On completion of the Level 6 Cyber Security Technical Professional Degree Apprenticeship, progression routes available to learners include:

Level 7 Digital and Technology Solutions Specialist (Integrated Degree)

Level 7 standards

3.24 Digital and Technology Solutions Specialist (Integrated Degree) Apprenticeship (Level 7) – last updated: 13/05/2019

The Digital and Technology Solutions Specialist Degree Apprenticeship will help transform apprentices from a technical professional into a technical specialist. It will build leadership and technology management skills while deepening knowledge of the chosen specialist route.

This is an options-based apprenticeship. In addition to the core programme there are eleven optional pathways for Software engineering specialist, Data analytics specialist, Digital business and enterprise systems architecture specialist, System test and assurance specialist, IT strategy specialist, IT business analysis specialist, Network engineering specialist, IT operations management specialist, IT project management specialist, Cyber security technology specialist and IT / digital futures management specialist.

The EPA consists of a work-based project report and professional discussion underpinned by a Portfolio.

3.25 Artificial Intelligence (AI) Data Specialist (Integrated Degree) Apprenticeship (Level 7) – last updated: 30/04/2021

The Digital and Technology Solutions Specialist Degree Apprenticeship trains apprentices to understand the statistical and mathematical foundations and have advanced practical knowledge of AI and machine learning methodologies applied to complex datasets to meet business objectives.

The EPA consists of a work-based Project Report and questions, a Technical Test and Professional Discussion underpinned by a Portfolio.

3.26 Game Programmer (Integrated Degree) Apprenticeship (Level 7) – last updated: 10/08/2021

The Game Programmer Degree Apprenticeship trains apprentices to create dependable and efficient gaming software within the constraints of real-time graphical

environments running on contemporary gaming platforms. This includes gameplay mechanics, asset pipelines, and custom technologies. Apprentices will build on a core knowledge of games development and develop skills in both game software programming and game technology programming.

The EPA consists of a work-based Project Presentation and Professional Discussion underpinned by a Portfolio.

4. Digital apprenticeship training providers

Level 3

- Data technician (46 training providers)
- Software development technician (60 training providers)
- Cyber security technician (30 training providers)
- Digital support technician (69 training providers)
- Network cable installer (5 training providers)
- IT solutions technician (49 training providers)
- Information communications technician (92 training providers)

Level 4

- Data analyst (83 training providers)
- Data protection and information governance practitioner (0 training providers)
- Business analyst (28 training providers)
- Software developer (78 training providers)
- Software tester (21 training providers)
- DevOps engineer (16 training providers)
- Digital accessibility specialist (1 training provider)
- Cyber security technologist (13 training providers)
- Applications support lead (4 training providers)
- Network engineer (75 training providers)
- Digital community manager (9 training providers)

Level 6

- Digital and technology solutions professional (integrated degree) (45 training providers)
- Digital user experience (UX) professional (integrated degree) (4 training providers)
- Data scientist (integrated degree) (12 training providers)
- Creative digital design professional (integrated degree) (3 training providers)
- Cyber security technical professional (integrated degree) (7 training providers)

Level 7

- Digital and technology solutions specialist (integrated degree) (23 training providers)
- Artificial intelligence (AI) data specialist (5 training providers)
- Game programmer (2 training providers)

5. End-point assessment organisations

All Apprenticeships end with the End Point Assessment (EPA). This is completed by a third party, the End Point Assessment Organisation (EPAO). The EPA encompasses the evaluation of all of the work completed throughout the duration of the apprenticeship.

Level 3

- Data technician (8 EPA organisations)
- Software development technician (2 EPA organisations)
- Cyber security technician (1 EPA organisation)
- Digital support technician (7 EPA organisations)
- Network cable installer (3 EPA organisations)
- IT solutions technician (2 EPA organisations)
- Information communications technician (5 EPA organisations)

Level 4

- Data analyst (8 EPA organisations)
- Data protection and information governance practitioner (0 EPA organisations)
- Business analyst (4 EPA organisations)
- Software developer (4 EPA organisations)
- Software tester (1 EPA organisation)
- DevOps engineer (2 EPA organisations)
- Digital accessibility specialist (0 EPA organisations)
- Cyber security technologist (4 EPA organisations)
- Applications support lead (1 EPA organisation)
- Network engineer (4 EPA organisations)
- Digital community manager (2 EPA organisations)

Level 6

- Digital and technology solutions professional (integrated degree) (48 EPA organisations)
- Digital user experience (UX) professional (integrated degree) (1 EPA organisation)
- Data scientist (integrated degree) (3 EPA organisations)

- Creative digital design professional (integrated degree) (1 EPA organisation)
- Cyber security technical professional (integrated degree) (6 EPA organisations)
-

Level 7

- Digital and technology solutions specialist (integrated degree) (19 EPA organisations)
- Artificial intelligence (AI) data specialist (1 EPA organisation)
- Game programmer (2 EPA organisations)

6. Funding of digital apprenticeships

6.1 Overview

The funding for standards is set by IfATE and the total funding covers the cost of training and the cost of end-point assessment.

The *current* funding rates for digital apprenticeship standards are set out in Table 2. Employers should be aware of the funding levels for each apprenticeship to ensure that they get value for money, when discussing apprenticeship provision with approved training providers.

How the current funding works in practice

- There is a 90% contribution from the government to the cost of training for employers who do not pay the Apprenticeship Levy.
- The upper limit of the funding bands will cap the maximum price that the government will 'co-invest,' where an employer does not pay the levy.
- The upper limit of each funding band also caps the maximum amount of funds an employer who does pay the levy can use towards an individual apprenticeship.
- There is a 100% contribution from the government to the cost of training for employers with fewer than 50 employees, who do not pay the Levy, and who take on apprentices who are 16 to 18 years old, 19 to 24-year-old care leavers or 19- to 24-year-olds with an Education and Health Care Plan.
- There is a further £1,000 payment from the government to employers and training providers when they take on 16 to 18 year olds, 19 to 24 year olds who were in care or who have an Education and Health Care Plan.

6.2 The Apprenticeship Levy

The Apprenticeship Levy was introduced in May 2017.

The Government's intention is that the way they fund apprenticeships in England will simplify some of the complex arrangements that currently exist and will make it easier for employers of all sizes to choose the apprenticeship training they want to purchase and have more control over designing, choosing, and paying for their apprenticeship training. Funding will follow employer choice, which will mean providers will have to be responsive to what employers need.

The Levy is paid by employers with a pay bill of over £3 million. It is paid at a rate of 0.5% of the total annual pay bill and is paid through PAYE. Employers who pay the Levy can create an account to access the apprenticeship service (https://manage-apprenticeships.service.gov.uk/)

This allows them to spend available funds on apprenticeship training. Funds appear in the employer account monthly, and the Government applies a 10% top-up. The funding can only be used on apprenticeship training and assessment.

Most employers do not pay the levy and these employers will be required to make a 10% contribution to the cost of the training and assessment that they select, and the

government will pay the rest (90%), up to the maximum amount of government funding available for that apprenticeship. Employers pay this directly to their provider; they can spread it over the lifetime of the apprenticeship.

Table 2 - Digital apprenticeship standards funding rates

Name	Apprenticeship standard reference number	Approved for Delivery Date	Level	Maximum Funding (£)	Typical Duration
Software Developer	ST0116	12/11/2014	4	£18,000	24
Network Engineer	ST0127	12/11/2014	4	£17,000	30
Digital and Technology Solutions Professional (integrated degree)	ST0119	26/03/2015	6	£25,000	36
Data Analyst	ST0118	23/03/2016	4	£15,000	24
Software Tester	ST0129	21/04/2016	4	£18,000	24
Software Development Technician	ST0128	16/12/2016	3	£15,000	18
Business Analyst	ST0117	31/03/2017	4	£18,000	18
Digital and Technology Solutions Specialist (integrated degree)	ST0482	07/08/2018	7	£21,000	18
Data Scientist (integrated degree)	ST0585	17/08/2018	6	£19,000	36
Cyber Security Technical Professional (integrated degree)	ST0409	24/09/2018	6	£24,000	48
IT Solutions Technician	ST0505	18/02/2019	3	£13,000	18
Digital Support Technician	ST0120	11/04/2019	3	£13,000	15
Network Cable Installer	ST0485	23/04/2019	3	£9,000	12
Digital Community Manager	ST0345	14/08/2019	4	£13,000	24
Digital User Experience (UX) Professional (Integrated Degree)	ST0470	03/02/2020	6	£24,000	48
Creative Digital Design Professional (integrated degree)	ST0625	03/02/2020	6	£25,000	36
DevOps Engineer	ST0825	12/03/2020	4	£17,000	24

Cyber Security Technician	ST0865	13/05/2020	3	£11,000	18
Artificial Intelligence (AI) Data Specialist	ST0763	13/05/2020	7	£17,000	24
Data Technician	ST0795	10/07/2020	3	£12,000	24
Cyber Security Technologist (2021)	ST1021	04/05/2021	4	£18,000	24
Information Communications Technician	ST0973	04/05/2021	3	£15,000	18
Digital Accessibility Specialist	ST0863	01/07/2021	4	£16,000	24
Game Programmer	ST0953	03/08/2021	7	£19,000	24
Applications Support Lead	ST0949	12/11/2021	4	£17,000	24

Summary of additional funding support

In addition to the funding available through the funding bands, there are 4 additional potential contributions:

Funding for 16 – 18-year-olds
The Government will pay £1,000 to employers, and a further £1,000 to training providers if they train a 16-18-year-old apprentice
Funding for additional learning support
The Government will pay training providers up to £150 per month to support learners with special needs.
Disadvantaged young people
The Government will pay £1,000 to employers and a further £1,000 to training providers if they train 19 – 24-year-olds, leaving care or who have a Local Authority Education and Healthcare Plan.
Funding for English and maths training
The Government will pay training providers £471 to help apprentices gain the minimum standard of Level 2 in English and the same to reach a level 2 in Maths (if not already attained).