

This qualification specification covers the following qualification:

Qualification Number	Qualification title
603/6528/6	Gateway Qualifications Level 1 Award in Introduction to Programming

Version and date	Change detail	Section/page reference
2.0 (January 2026)	Specification template updated	n/a

The previous version of this qualification specification is available in Prism. Search for the qualification in the Qualification Library and select the 'Documents' tab.

About this qualification specification

Gateway Qualifications is a nationally regulated Awarding Organisation that supports education and training providers through its strong relationships, adaptability and expert team.

This qualification specification contains everything you need to know about this qualification and should be used by everyone involved in the planning, delivery and assessment of the Gateway Qualifications Level 1 Award in Introduction to Programming.

This document should be read in conjunction with the Gateway Qualifications' Centre Handbook and other publications available on the website, which contain more detailed guidance on assessment and quality assurance practice.

In order to offer this qualification, you must be a Gateway Qualifications recognised centre and be approved to offer this qualification.

If your centre is not yet recognised, please contact our Business Development team to discuss becoming a Gateway Qualifications recognised centre:

Telephone: 01206 911211
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Website: [Gateway Qualifications](https://www.gatewayqualifications.org.uk)

Contents

Introduction	6
1. Qualification overview	7
1.1 Qualification purpose	7
1.2 Aims and objectives	7
1.3 Key information	7
1.4 Entry requirements.....	8
1.5 Progression opportunities	8
1.6 Equity, diversity and inclusion	9
1.7 Resource requirements.....	9
1.8 Support materials and resources	9
1.9 Achieving this qualification	9
1.10 Indicative content.....	10
2. Assessment	11
2.1 Assessment overview	11
2.2 Assessment language.....	11
2.3 Explanation of assessment terms used in this qualification	11
3. Unit Details	12
3.1 Mandatory unit.....	12
Introduction to Programming	12
4. Quality Assurance	15
4.1 Internal quality assurance	15
4.2 Sampling.....	15
4.3 Internal standardisation.....	16
4.4 External quality assurance	16
4.5 Centre monitoring	16
4.6 Quality assuring centre assessment decisions.....	17
4.7 Malpractice and maladministration.....	17
4.8 Direct claim status.....	17
4.9 Recognition of prior learning	17
4.10 Reasonable adjustments and special considerations	18
4.11 Appeals.....	18
5. Glossary of terms	19

Introduction

This qualification has been approved by the Office of Qualifications and Examinations Regulation (Ofqual) that regulates qualifications, examinations and assessments in England.

This qualification is designed to introduce learners to the fundamental principles of computer programming and helps them to understand how programming works in practice. Learners will develop programming skills to design and develop their own computer program.

This award is ideal for flexible delivery, whether as a stand-alone, bite-sized qualification or as part of a broader curriculum. It can be effectively integrated with other units or qualifications to create coherent learning pathways that support progression in digital and IT skills.

1. Qualification overview

1.1 Qualification purpose

The purpose of this qualification is to provide an introduction to computer programming for learners aged 16 and above who are seeking to upskill for entry into employment or progression to further study within the digital sector. Designed as a smaller, focused course, it supports learners who may be new to programming by developing essential knowledge, practical skills, and confidence in an applied context.

Through this qualification, learners gain an understanding of fundamental programming concepts and processes, including problem-solving, logical thinking, and structured design. Learners are required to interpret a client brief, design and develop a simple program using a graphic-based programming language, and test, document, and review their solution.

The qualification offers clear value by enabling learners to build transferable digital and employability skills that are relevant across a wide range of digital roles and study pathways. It supports progression by providing a sound foundation for further learning in programming and digital technologies, while also helping learners demonstrate their capability to plan, create, and evaluate digital solutions in response to real-world requirements.

1.2 Aims and objectives

The aim of this qualification is to introduce learners to the core principles and practical skills of computer programming. It enables learners to understand basic programming concepts, design a simple program in response to a client brief, develop the program using a graphic-based programming language, and test, document, and review their finished work.

The objectives of the qualification are to provide learners with the opportunity to:

- understand the basic principles and concepts that underpin computer programming
- design a simple computer program in response to a specified client brief
- develop a functional program using a graphic-based programming language
- test, document, and review the completed program to identify strengths and areas for improvement

1.3 Key information

Qualification summary	
Qualification title	Gateway Qualifications Level 1 Award in Introduction to Programming
Qualification type	Regulated Qualifications Framework (RQF)
Qualification number	603/6528/6
Learning aim reference number	60365286
Level	Level 1

Guided learning hours (GLH)	48
Total qualification time (TQT)	60
Credit value	6
Sector subject area	6.1 Digital Technology (practitioners)
Age appropriateness	16-18, 19+
Grading scale	Pass/Fail
Assessment method	Portfolio of Evidence
Regulation information	This qualification is regulated by Ofqual for use in England only.

1.4 Entry requirements

There are no specific prior skills/knowledge learners must have for this qualification.

Centres must ensure that learners have the correct information and advice when selecting qualifications to ensure that the qualification will meet their needs.

Centres must ensure that this qualification suits the age and abilities of their learners by ensuring that learners can meet the relevant literacy, numeracy, and digital requirements of the qualification.

Learners enrolled on this qualification should not undertake another qualification at the same level with a similar title or content, as this could impact funding eligibility due to duplicated learning.

Centres are responsible for registering learners via the Gateway Qualifications' online registration portal Quartz. Learner registration guidance is available on our website, [Registering learners](#).

1.5 Progression opportunities

On completion of this qualification learners will be equipped with an introductory set of knowledge, understanding and skills related to computer programming.

Successful completion of the Level 1 Award in Introduction to Programming could allow learners to progress onto:

- Gateway Qualifications Level 2 Award/Certificate/Extended Certificate/Diploma in Digital and IT Skills
- Level 2 qualifications in Digital and IT

A full in-depth careers information, advice and guidance session should be completed for learners before, during and after completion of learning, finding them the most appropriate progression pathways unique to them and based on their ability and aspirations.

1.6 Equity, diversity and inclusion

At Gateway Qualifications we aim to create an environment which celebrates differences and strives for equitable opportunities and outcomes for all. More than a mere commitment, this Equity, Diversity, and Inclusion Policy stands as a framework, informing every aspect of the work we do. It is our aim to support our staff and learners of all abilities, ensuring the development, delivery, and awarding of qualifications in a fair and inclusive manner.

Whilst developing our qualifications, we have given due consideration to eliminating discrimination, harassment and victimisation, advancing equality of opportunity, and fostering good relations between people who share a relevant protected characteristic (as defined in the Equality Act 2010) and those who do not.

For full details please see the [Equity, Diversity and Inclusion Policy](#).

1.7 Resource requirements

There are no prescribed resource requirements for this qualification. However, centres must ensure that learners have access to appropriate and sufficient resources to support the achievement of all learning outcomes.

Centres may find it useful to access resources from [Cisco Networking Academy](#).

1.8 Support materials and resources

In addition to this qualification specification, the following resources are available for centres approved to offer the qualification:

- Learner Pack - Level 1 Programming Award
- Teaching Delivery Guide - Level 1 Programming
- Teaching Resource - Introduction to Programming PowerPoint x 2

1.9 Achieving this qualification

The qualification will be awarded to learners who successfully demonstrate their achievement of all learning outcomes of the unit of the qualification.

The knowledge, skills and understanding that will be assessed as part of the qualification are set out within the unit details.

To be awarded this qualification, learners must successfully achieve the single mandatory unit.

Mandatory unit

Unit reference	Unit title	Unit level	Credit value	GLH
R/618/3658	Introduction to Programming	Level 1	6	48

1.10 Indicative content

The examples included within the indicative content are provided as guidance only. They are not exhaustive and should not be regarded as limiting the range of knowledge, skills or understanding that may be taught, developed or assessed. Centres may incorporate additional relevant material, contexts or approaches as appropriate, provided these remain aligned with the stated learning outcomes and overall requirements of the qualification.

2. Assessment

2.1 Assessment overview

The qualification is assessed through a portfolio of evidence which is internally assessed by centre staff and externally quality assured by Gateway Qualifications. For more information, please see the [Centre Guide to Best Practice in Internal Assessment](#).

Each learner must build a portfolio of evidence generated from appropriate assessment tasks which demonstrates achievement of all the learning outcomes associated with the unit.

Assessors may use alternative assessment methods as long as they are fit for purpose, meet the requirements of the qualification and ensure the integrity of the assessment process.

On completion of the unit learners must declare that the work produced is their own and the Assessor must counter sign this.

Should a learner not achieve the required standard to pass an assessment, further teaching and learning should take place before attempting the assessment again.

The qualification will be awarded to learners who successfully demonstrate their achievement of all learning outcomes within the unit.

2.2 Assessment language

This qualification will be assessed in English. All learners work must be in English. British Sign Language can be used where it is permitted for the purpose of a reasonable adjustment.

2.3 Explanation of assessment terms used in this qualification

Gateway Qualifications has produced guidance to support consistent delivery of units across all centres offering our qualifications.

For clarification on how to interpret and deliver the command words used in our assessments, please refer to the Assessment Command Word Definitions document, available on the Gateway Qualifications website [Internal & External Assessment Practice - Gateway Qualifications](#) under Assessment Design.

3. Unit Details

3.1 Mandatory unit

Introduction to Programming

Unit reference:	R/618/3658
Unit summary:	Learners will learn about the basic principles of computer programming to understand how programming works. They will develop graphic-based programming skills to design and develop their own computer program.
Unit level:	Level 1
GLH:	48
Credit value:	6
Grading method:	Pass/Fail

LEARNING OUTCOMES	ASSESSMENT CRITERIA
The learner will:	The learner can:
1. Know the basic principles of programming.	1.1 Describe the application of logic in programming. 1.2 Identify different programming languages. 1.3 State the main differences between graphic-based and text-based programming languages.
2 Be able to design a simple computer program in response to a client brief.	2.2 Outline programming requirements. 2.2 Produce design documentation.
3 Be able to develop the program using a graphic-based programming language.	3.1 Develop the program using a graphic-based programming language.
4 Be able to test, document and review the program.	4.1 Test the program for functionality, making refinements where necessary. 4.2 Create documentation for the program. 4.3 Review how well the program meets the client brief, making suggestions for further improvements.

Indicative Content:

AC 1.1: Describe the application of logic in programming, for example:

- Understand that computers are based on a two-value logic system – 1/0, on/off, yes/no, and that they perform calculations using computational logic and of logic gates, And, Or, Not, input/output, truth tables.
- Understand how computers use logic to make decisions and run programs, how computers solve problems with logic, how computer programs store data, how functions work.

AC 1.2: Identify different programming languages, for example:

- Languages: Python, Java, C++, Visual Basic, PHP, Perl (text-based), Scratch, Tynker, Blockly (graphical/block-based).

AC 1.3: State the main differences between graphic-based and text-based programming languages, for example:

- Graphical programming languages: visual therefore less intimidating to learn, commands to choose from so no need to memorise, easy for beginners to start coding, no syntax errors.
- Text-based programming languages: write lines and lines of code which can be time consuming, higher level of technical knowledge required to understand the syntax (the set of rules of how to combine instructions so the computer can understand them).

AC 2.1: Outline programming requirements, for example:

- Coding requirements: intended purpose and user requirements (as defined in client brief), a problem definition statement.

AC 2.2: Produce design documentation, for example:

- Designs should include: a proposed solution using design tools, e.g. a description of the main program tasks – input and output format (such as to add/multiply two numbers together and display a result), screen layouts and navigation, including programs (for example, initial splash screen or main activity screen), algorithms with a description of the method of solution (flowcharts, pseudocode), data structures, data storage, control structures, data validation, error handling and reporting.

AC 3.1: Develop the program using a graphic-based programming language, for example:

- Graphical programming or block-based as opposed to text-based programming, where instructions are issued by dragging and dropping blocks which helps to prevent syntax errors, users do not need to memorise syntax to write code.

AC 4.1: Test the program for functionality, making refinements where necessary, for example:

- Test the program: produce a test plan, record results, apply corrections and improvements, screen shots to evidence any changes.
- Testing: test strategy, test data, test plan structure, (for example, test, date, expected result, actual result, corrective action, error messages).

AC 4.2: Create documentation for the program, for example:

- Documentation: annotate code, user guide.

AC 4.3: Review how well the program meets the client brief, making suggestions for further improvements, for example:

- Review the program against the client brief: learner should include reflections on their design documentation and program, along with strengths and areas for development, taking into account user feedback, own self-assessment, feedback from others (peers, tutors), suggested improvements to own work should include more efficient or effective ways of working, ways to improve their program, develop own skills, etc.

4. Quality Assurance

As the portfolio of evidence is assessed by the centre's assessor, the centre must operate an internal quality assurance process. This ensures that qualification standards are being applied consistently within a centre through training, standardisation, sampling of marking and feedback.

4.1 Internal quality assurance

Centres should refer to the online [Centre Handbook](#) for further guidance on staffing requirements.

A centre's internal quality assurance process is led by the Internal Quality Assurer (IQA), who is responsible for identifying and promoting best practices in teaching, learning, and assessment. They are responsible for:

- monitoring assessment practices to ensure they meet our standards
- sampling assessment decisions and learner work to verify accuracy and consistency
- observing assessors and tutors, providing feedback and support for improvement
- facilitating standardisation meetings to align assessment practices across teams
- supporting assessors with professional development and guidance
- identifying and promoting best practices in teaching, learning, and assessment
- handling appeals and complaints related to assessment outcomes
- maintaining detailed records for audits and external quality assurance visits

The portfolio of evidence is subject to internal quality assurance whereby a centre regularly samples and evaluates its assessment practices and decisions, and acts on the findings to ensure consistency and fairness.

To ensure the integrity of the internal quality assurance process, Internal Quality Assurers (IQAs) must not quality assure work that they have assessed.

Assessors must ensure fair assessment and equality of opportunity for the learner within the assessment process. In order to ensure that the assessor is making judgements that are consistent with the rest of the assessment team, they must meet regularly with other assessors and internal quality assurers to discuss assessment decisions.

4.2 Sampling

Sampling is a key element of the internal quality assurance process whereby the IQA:

- uses a risk-based approach to determine what to sample and when
- checks the quality and consistency of each assessor's decisions
- maintains a common standard of marking within the centre over time
- applies methods like vertical sampling (same unit across assessors), horizontal sampling (multiple units from one learner), and diagonal sampling (across units and learners)
- ensures sampling covers all units over time, not just at the end of the assessment process

4.3 Internal standardisation

Internal standardisation is a collaborative process by which tutors and assessors within a centre consider work that they have assessed and, using pre-determined criteria, reach a common agreement on standards as being typical of work at a particular level or grade by comparing samples and providing peer evaluation.

The process of internal quality assurance provides an opportunity for assessors to receive feedback and support, which can help improve their assessment skills. It fosters a culture of continuous improvement and professional development among teaching and assessment staff.

Standardisation will be facilitated by the Centre's IQA and should include all those involved in assessing learner evidence. Centre standardisation events should be held at regular intervals. Centres will be required to keep records of each internal standardisation event, including the date, attendees and notes on any outcomes and actions. Centres will be required to store these records securely for three years, and Gateway Qualifications may ask to see them as part of the centre's quality assurance and monitoring activities.

4.4 External quality assurance

The external quality assurance process for this qualification takes a risk-based approach where external monitoring visits are carried out to review the internal quality systems of centres against key quality standards.

External quality assurance falls into two categories, the first being the quality assurance of the centre's policies and procedures (Centre monitoring) as detailed below, with the second being external sampling of the assessment decisions at qualification level.

4.5 Centre monitoring

Centre monitoring is undertaken by an External Quality Assurer (EQA) allocated to the centre. The EQA plays a critical role in the Gateway Qualifications approach to centre assessment standards scrutiny as they are responsible for:

- validating the centre's procedures for delivery of qualifications and assessment
- completing reports for each visit with clear action points where needed
- carrying out an annual compliance visit
- risk rating centres on the above

The EQA will carry out an initial risk assessment at the centre recognition stage and then annually on an ongoing basis and will give a high/medium/low-risk.

The EQA will arrange the annual quality monitoring visits. These visits:

- monitor the centre's compliance with the centre recognition terms and conditions by reviewing programme documentation and meeting managers and centre staff
- identify any staff development needs
- ensure that all procedures are being complied with through an audit trail, and make sure that the award of certificates of achievement to learners is secure

The EQA will contact the centre in advance of a visit. However, Gateway Qualifications reserves the right to undertake unannounced visits, including during assessment times.

4.6 Quality assuring centre assessment decisions

The external quality assurance process for this qualification involves a risk-based approach where sampling of assessment decisions and internal quality assurance activity to ensure that qualification standards are maintained.

An External Quality Assurer (EQA) will be allocated to the centre to sample the centre's assessment decisions, who will consider whether the sample provides evidence of the following:

- that the standard set out in the units is evidenced and assessment decisions are applied consistently
- appropriate teaching, stimulus, support, or learning materials and resources
- an appropriate internal quality assurance strategy and sampling plans
- appropriate and consistent feedback provided by the assessor to the learner, and by the IQA to the assessor

A report will be completed by the EQA and made available to the Centres once the sampling activity has been completed.

4.7 Malpractice and maladministration

Malpractice is any deliberate activity, neglect, default or other practice that compromises the integrity of the assessment process and/or the validity of certificates. It covers any deliberate actions, neglect, default or other practice that compromises or could compromise:

- the assessment process
- the integrity of a regulated qualification
- the validity of a result or certificate
- the reputation and credibility of Gateway Qualifications
- the qualification to the public at large

Centre staff should be familiar with the [Malpractice and Maladministration Policy and Procedure](#).

4.8 Direct claim status

Direct claim status (DCS) is a status given to centres on an individual qualification basis and allows centres to claim certification without waiting for an external quality assurance activity to take place.

DCS is permitted for this qualification. Refer to the [Direct Claims Status page](#) for further details.

4.9 Recognition of prior learning

Recognition of Prior Learning enables recognition of achievement from a range of activities through the knowledge, understanding or skills that learners already possess and so do not need to develop these through a course of learning.

The use of RPL is not permitted for this qualification.

4.10 Reasonable adjustments and special considerations

The following are reasonable adjustments that require permission from Gateway Qualifications prior to assessment.

- adapting assessment materials
- adaptation of the physical environment for access purposes
- adaptation to equipment
- assessment material in an enlarged format or Braille
- assessment material on coloured paper or in audio format
- use of British Sign Language (BSL)
- changing usual assessment arrangements
- extra time, e.g. assignment extensions
- reader
- scribe
- use of assistive software
- use of assistive technology
- use of coloured overlays, low vision aids
- use of a different assessment location

If not specifically listed in this section, reasonable adjustments are centre permitted, for details on this Centres should refer to the [Reasonable Adjustments and Special Considerations Centre Guidance](#)

For learners who require special consideration at the point of assessment, complete a Special Consideration Request Form.

4.11 Appeals

Learners who wish to appeal about their assessment results or a decision affecting their learning should either be supported by their Centre or should have exhausted their Centre's own appeals process before appealing to Gateway Qualifications. In the latter case, learners must provide Gateway Qualifications with evidence that they have first appealed to their Centre.

Centres and learners should refer to the [Appeals policy](#) for further information.

5. Glossary of terms

This section provides a concise compilation of frequently used terms and acronyms within our organisation and the broader educational context.

Term	Definition
Assessment Criteria (AC)	The standard a learner is expected to meet to demonstrate that learning outcomes have been met.
Guided Learning Hours (GLH)	The number of hours associated to a qualification/unit relating to the activity of a learner in being taught or instructed by – or otherwise participating in education or training under the immediate guidance or supervision of – a lecturer, supervisor, tutor or other appropriate provider of education or training.
Learning Outcomes (LO)	Describes what a learner is expected to know, understand and be able to do as a result of the process of learning.
Recognition of Prior Learning (RPL)	A method of assessment that considers whether a learner can meet the assessment requirements for a unit through knowledge, understanding or skills they already possess and do not need to develop through a course of learning.
Total Qualification Time (TQT)	Is the number of notional hours which represents an estimate of the total amount of time that could be reasonably expected to be required for a learner to achieve and demonstrate the achievement of the level of attainment necessary for the award of the qualification.



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