Entry Level Certificate
Computer Science

Qualification Regulated

OCR
Oxford Cambridge and RSA

ENTRY LEVEL CERTIFICATE

Specification

COMPUTER SCIENCE

R354

For first assessment in 2017

Version 1.4 (January 2020)

www.ocr.org.uk/computing

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Specifications are updated over time. Whilst every effort is made to check all documents, there may be contradictions between published resources and the specification, therefore please use the information on the latest specification at all times. Where changes are made to specifications these will be indicated within the document, there will be a new version number indicated, and a summary of the changes. If you do notice a discrepancy between the specification and a resource please contact us at: resources.feedback@ocr.org.uk

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Registered office:
The Triangle Building
Shaftesbury Road
Cambridge
CB2 8EA

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Contents

1 Why choose an OCR Entry Level Certificate in Computer Science? 1

1a. Why choose an OCR qualification? 1
1b. Why choose an OCR Entry Level Certificate in Computer Science? 2
1c. What are the key features of this specification? 3
1d. What is new in OCR Entry Level Certificate in Computer Science? 4
1e. How do I find out more information? 5

2 The specification overview 6

2a. OCR's Entry Level Certificate in Computer Science (R354) 6
2b. Content of Computer Systems 7
2b. Content of Computational Thinking, Algorithms and Programming 10
2b. Content for the Programming Project 13
2c. Prior knowledge, learning and progression 15

3 Assessment of Entry Level Certificate in Computer Science 16

3a. Forms of assessment 16
3b. Assessment objectives (AO) 19
3c. Total Qualification Time 20
3d. Assessment availability 20
3e. Retaking the qualification 20
3f. Internal assessment tasks 21
3g. Programming Project – marking criteria 21
3h. Calculating qualification results 26

4 Admin: what you need to know 27

4a. Pre-assessment 27
4b. Special consideration 27
4c. Admin of the Programming Project assessment 29
4d. Results and certificates 31
4e. Post-results services 32
4f. Centre malpractice guidance 32

5 Appendices 33

5a. Awarding of grades 33
5b. Overlap with other qualifications 33
5c. Key skills sections 33
5d. Mathematical skills requirement 34
5e. Files 35
5f. Interim awards 37

Summary of updates 39

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1 Why choose an OCR Entry Level Certificate in Computer Science?

1a. Why choose an OCR qualification?

Choose OCR and you've got the reassurance that you're working with one of the UK's leading exam boards. Our new Entry Level Certificate in Computer Science has been refreshed to fit with reformed GCSE (9–1) Computer Science qualifications to provide learners with a qualification that's relevant to them and meets their needs.

We're part of the Cambridge Assessment Group, Europe's largest assessment agency and a department of the University of Cambridge. Cambridge Assessment plays a leading role in developing and delivering assessments throughout the world, operating in over 150 countries.

We work with a range of education providers, including schools, colleges, workplaces and other institutions in both the public and private sectors. Over 13,000 centres choose our A Levels, GCSEs and vocational qualifications including Cambridge Nationals and Cambridge Technicals.

Our Specifications

We believe in developing specifications that help you bring the subject to life and inspire your students to achieve more.

We've created teacher-friendly specifications that are designed to be straightforward and accessible so that you can tailor the delivery of the course to suit your needs. We aim to encourage students to become responsible for their own learning, confident in discussing ideas, innovative and engaged.

Our Entry Level Certificate in Computer Science is made up of 100% internally assessed tests and tasks. The flexibility allowed through this approach to assessment will allow you to take any issues into account in your planning that may affect your learners' performance.

We provide support services designed to help you at every stage, from preparation through to the delivery of our specifications. This includes:

- Progress Profile Interim Award to split the course into manageable stages and help motivate learners through earning teacher-managed awards – see Section 5f.
- Access to Subject Advisors to support you through the transition and throughout the lifetime of the specification.
- Codio – an exciting new cloud based coding and content platform that enables teachers and learners to learn Computer Science practically and in line with our specification. (www.codio.com)

All Entry Level Certificate qualifications offered by OCR are regulated by Ofqual, the Regulator for qualifications offered in England. The accreditation number for OCR's Entry Level Certificate in Computer Science is QN 603/0098/X.

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1b. Why choose an OCR Entry Level Certificate in Computer Science?

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Worthwhile

The qualification will build on the knowledge, understanding and skills established through the Computer Science elements of the Key Stage 2 and Key Stage 3 programmes of study. The content has been designed not only to allow for a solid basis of understanding but to engage learners and get them thinking about real world application of Computer Science.

Engaging and fun

This course provides learners with opportunities to become familiar with how computer technology works and a look at what goes on 'behind the scenes'. Through the introduction of computational thinking, algorithms and programming, this course will help learners develop their problem solving skills. It will be a fun and interesting way to develop these skills, which can be transferred to other subjects and even applied in day-to-day life.

Teacher involvement

You can enjoy the freedom and excitement of teaching this qualification, which has been developed to help you inspire your learners. This course was developed with you in mind, using a clear and easy to understand format, making it straightforward for you to deliver. The resources will focus on empowering teachers to explore new teaching methods that will enthuse and engage their learners.

There is no terminal examination as this is a non-linear qualification and assessment is by means of a combination of centre-marked tests and a programming project task. All assessments are centre-based, supervised by the learner's own teacher, and are carried out at times determined by the centre. All assessments will be subject to normal moderation procedures by OCR upon submission.

Is there progression from Entry Level to GCSE (9–1)?

This course is designed to provide learners with a broad understanding of the world of Computer Science and encourage them to develop computational thinking, algorithm and programming skills. It will prepare learners for GCSE by covering some similar content to the GCSE (9–1) Computer Science and provides a firm foundation from which learners may make informed decisions about progressing onto a GCSE (9–1) Computer Science or alternatively, a Vocational IT qualification.

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Aims and learning outcomes

OCR's Entry Level Certificate in Computer Science will encourage learners to:

- understand and apply the fundamental principles and concepts of Computer Science, including problem solving, logic, algorithms, and programming
- analyse problems in computational terms, and have exposure to practical experience of writing computer programs in order to solve such problems
- learn about, discuss and evaluate both new and unfamiliar technologies
- become responsible, confident and creative users of Computer Science and related technologies
- understand the components that make up digital systems, and how they communicate with one another and with other systems
- understand the impacts of digital technology to the individual and to wider society.

1c. What are the key features of this specification?

The key features of OCR's Entry Level Certificate in Computer Science for you and your learners are:

- a simple and intuitive assessment model, consisting of 2 × 30 minutes tests for each section, one focusing on the theory of Computer Science and the other with a focus on programming and algorithms. All tests have identical weighting and mark allocations.
- a coded programming project that will enthuse learners to provide a solution from a choice of OCR set tasks
- a team of OCR Subject Advisors who support teachers directly and manage the qualification nationally
- a specification that has been designed to support a seamless transition into GCSE (9–1) Computer Science or a Vocational IT qualification.

This qualification will enable learners to develop:

- valuable thinking and programming skills that are extremely attractive in the modern workplace
- an understanding of computational thinking and how to apply it through chosen programming languages
- the ability to have confidence in discussing Computer Science within the wider world and the implications it may have.

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1d. What is new in OCR Entry Level Certificate in Computer Science?

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This section is intended for teachers using OCR Entry Level Certificate in Computer Science. It highlights the differences between the current Entry Level Certificate in Computing (R353) and the new version for first teaching from September 2016.

What stays the same?	What's changing?

• A flexible and accessible Computer Science course aimed at a diverse range of learners and centres.
• A single Entry Level specification with three content parts.
• Award of an Entry 1, Entry 2 or Entry 3 Certificate, based on performance in assessment.
• Assessment Objectives are largely unchanged.
• Programming Project to choose from the programming projects given by OCR.
• Tests and project tasks are available to download from OCR Interchange.
• Tests and project tasks are 100% teacher-marked.
	• We have changed the number of tests from 3 to 4.
	• Tests will be 30 minutes each and learners can take these at the end of the subject content as described below:
	  ○ Computer hardware and software
	  ○ Computer memory, storage and moral, legal and environmental concerns
	  ○ Computational logic and algorithms
	  ○ Programming techniques and data representation
	• Total marks available have increased from 80 to 100.
	• Some new subject content including moral, legal, and environmental concerns to provide a closer link for progressing to a GCSE (9–1) in Computer Science.
	• Use of two or more programming languages, at least one of which is textual, to solve a variety of computational problems.
	• Learners explore similar subject content as learners studying GCSE (9–1) Computer Science, enabling co-teachability. Entry Level Certificate in Computer Science provides a firm foundation from which learners may make informed decisions about progressing on to a GCSE (9–1) Computer Science or other vocational ICT qualification.

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1e. How do I find out more information?

If you are already using OCR specifications you can contact us at: www.ocr.org.uk

If you are not already a registered OCR centre then you can find out more information on the benefits of becoming one at: www.ocr.org.uk

If you are not yet an approved centre and would like to become one go to: www.ocr.org.uk

Want to find out more?

Ask Subject Advisors:

Email: computerscience@ocr.org.uk

Customer Contact Centre: 01223 553998

Twitter: @OCR_ict

Visit our Online Support Centre at support.ocr.org.uk

2 The specification overview

2a. OCR's Entry Level Certificate in Computer Science (R354)

Learners must complete all three parts of the subject content which makes up 100% of the assessment.

Content Overview	Assessment Overview	
Computer Systems **Test 1** • Computer hardware • Computer software **Test 2** • Computer memory and storage • Moral, legal, cultural and environmental concerns	Computer Systems 40 Marks 2 × 30 minute tests Total 1 hour Set by OCR Internally-assessed/ externally-moderated	**40%** of total Entry Level Certificate
Computational thinking, algorithms and programming **Test 1** • Computational logic • Algorithms **Test 2** • Programming techniques • Data representation	Computational Thinking, Algorithms and Programming 40 Marks 2 × 30 minute tests Total 1 hour Set by OCR Internally-assessed/ externally-moderated	**40%** of total Entry Level Certificate
Programming project • Planning a solution • Developing a solution • Testing a solution • Evaluating the success of the solution	Programming Project 20 Marks Set by OCR Internally-assessed/ externally-moderated	**20%** of total Entry Level Certificate

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2b. Content of Computer Systems

This content consists of four broad sections on which the tests will be based. All of the sections will be assessed through OCR set end of content tests. These can be found on Interchange and taken after content has been taught.

There are two tests which cover the key concepts that learners will study. Teachers should ensure learners take the tests which cover the entirety of that section e.g. Computer System CS1 and CS2 **or** CS3 and CS4.

The tests should be marked by the teacher using the mark scheme available on Interchange.

For further information, please read the Teacher's Handbook which can be found on the OCR subject webpage.

Key Concepts	Learners should be able to:
Computer hardware	
• components of a computer	• classify the components of a computer with respect to: ○ input ○ output ○ storage
• internal components of a computer and their function	• identify the basic function of the common internal components of a computer: ○ motherboard ○ CPU ○ RAM ○ BIOS ○ hard disks
• peripherals and their function.	• identify the basic functions of common peripherals: ○ camera ○ keyboard ○ microphones ○ monitor ○ mouse ○ scanner ○ headphones ○ speakers ○ printer.

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Key Concepts	Learners should be able to:
Computer software	
• Operating System	• identify a range of operating systems, including Open Source and Proprietary • state why operating systems are needed • state the basic functions of an operating system: ○ management of software ○ management of hardware (through device drivers) ○ management of CPU and memory
• System Software	• identify examples of application software and system software
• types of utility software in different contexts	• state the purpose of different system utilities: ○ computer security (antivirus, anti-malware, anti-spyware and firewalls), ○ disk management (formatting, file transfer, and defragmentation), and back up ○ system maintenance (system information and diagnosis, system clean-up tools, automatic updating)
• types of application software in different contexts	• Identify a range of common application software packages and understand their uses, such as: ○ Image Processing ○ Word Processing ○ Spreadsheet ○ Web Browsers ○ presentation ○ Database ○ Integrated Development Environment (IDE).
Computer memory and storage	
• Primary Storage	• describe the purpose of RAM • describe the purpose of Cache • describe the purpose of ROM
• Secondary Storage	• explain the purpose of secondary storage • give examples of common types of secondary storage devices and key characteristics: ○ Magnetic (Hard Disk Drive, Tape Drive) ○ Optical (CD ROM, DVD) ○ Flash Memory (Solid State Drive, SD Card and USB Pen Drive) • identify appropriate use of secondary storage devices with respect to: ○ capacities ○ speed ○ portability ○ cost.

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Key Concepts	Learners should be able to:
Moral, legal, and environmental concerns	
• moral issues • legal issues • environmental issues	• describe Computer Science technologies with consideration of: ○ moral issues, for example: ▪ replacing of humans with computers ▪ changing the shape of the world ▪ spreading information and right of privacy ○ legal issues, for example: ▪ use of computer to commit crime (hacking) ▪ risks of access to people's data ○ environmental issues, for example: ▪ recycling and waste ▪ energy use ▪ improvements in manufacturing
• open source and proprietary software	• open source versus proprietary software ○ differences between cost, support, and customisation
• Computer Science legislation	• understand that laws exist that affect and control computer use • state the purpose of each of the following legislations: ○ Data Protection Act (1998) ○ Computer Misuse Act (1990) ○ Copyright, Design and Patents Act (1998).

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2b. Content of Computational Thinking, Algorithms and Programming

This content consists of four broad sections on which the tests will be based. All of the sections will be assessed through OCR set end of content tests. These can be found on OCR Interchange and taken after content has been taught.

There are two tests which cover the key concepts that learners will study. Teachers should ensure learners take the tests which cover the entirety of that section e.g. Computational Thinking, Algorithms and Programming CTAP1 and CTAP2 **or** CTAP3 and CTAP4.

The tests should be marked by the teacher using the mark scheme available on Interchange.

For further information, please read the Teacher's Handbook which accompanies this specification.

Key Concepts	Learners should be able to:
Computational logic	
• Boolean logic	• understand the purpose of data in computer systems being represented in binary form • understand simple Boolean logic and some of its uses in programming • be able to create the basic truth tables for the output of the logic gates: ○ AND ○ OR ○ NOT
• Boolean operators	• understand and evaluate the following Boolean operators: ○ equal to (a == b) ○ not equal to (a != b) ○ less than (a < b) ○ greater than (a > b)
• arithmetic operations	• understand and be able to use the following mathematical symbols: ○ + (add) ○ – (subtract) ○ * (multiply) ○ /(divide).

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Key Concepts	Learners should be able to:
Algorithms	
• computational thinking	• identify the success criteria of a problem • create a basic plan to solve a problem • sequence instructions in a logical way • identify potential difficulties • identify ways to check that a solution works
• binary/denary numbers	• understand how numbers are represented in binary • be able to carry out simple operations on binary numbers using: ○ binary addition (4 bit) ○ conversion between binary and decimal from 0 to 15
• flow charts	• produce algorithms using flow charts • use and be familiar with the flow chart shapes for: ○ Start/Stop ○ Process ○ Input/Output ○ Decision ○ Flow Lines.

Key Concepts	Learners should be able to:
Programming techniques	
• variables	• explain what a variable is used for (i.e. storing data within a program) • perform basic mathematical or logical calculations on variables
• input, output and storage of data	• explain and show how input may be captured and assigned to a variable for use/storage within a program • explain and show how to output text or movement on screen • be able to use a range of data types including: ○ integers ○ real numbers ○ text ○ Boolean ○ lists/arrays (one dimensional) or equivalent
• sequence	• understand that instructions are executed in the sequence they are written • write programs with instructions in the correct order • be able to identify errors in the order of a sequenced set of steps
• selection	• explain and identify how programs can be made to execute code based on a choice (true or false) e.g. IF statements
• iteration	• understand what is meant by a loop • use a loop in a program to execute statements multiple times (WHILE loop and FOR loop)
• operators	• use common arithmetic operators within a program • use common Boolean logic operators within a program
• comments	• explain why comments in code are useful • show examples of commenting in code.
Data Representation	
• units of computer memory	• understand that computer memory or storage are measured using different units: ○ bit ○ nibble ○ byte ○ kilobyte ○ megabyte ○ gigabyte
• data structure and data compression	• understand the purpose of data compression in terms of: ○ transmission of data ○ storage
• data in the form of binary digits	• understand how data can be represented digitally, in the form of binary digits for: ○ text ○ sounds ○ pictures.

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2b. Content for the Programming Project

In this programming project, learners will be expected to plan, write, test and evaluate a simple coded program. The project will incorporate:

- Success Criteria – learners will need to read and understand each component of the programming project to be able to create a list of success criteria.

- Planning and Design – learners will be required to develop a flow chart solution to the problem based on their project success criteria. They will also be expected to identify some simple tests they may carry out. Learners will be expected to use Input, Output and Storage of data within their project.

- Development - learners will be expected to use combinations of sequence, selection, iteration, arithmetic operations and comments to create the solution to the task.

- Testing and Remedial Action - learners will be expected to carry out some basic normal and erroneous testing to check that their solution works.

- Evaluation – learners will be expected to show that they have reflected on their solutions, and compare this solution to the initial goals they set.

The task can be chosen from three programming projects provided by OCR. It is the responsibility of the teacher to ensure that they develop the learner's programming techniques and teach subject content from the specification before starting programming project.

Learners will need to create suitable algorithms which will provide a solution to the problems identified in the task. They will then code their solution in a suitable programming language. The solution must be tested at each stage to ensure they solve the stated problem and learners must use a suitable test plan with appropriate test data.

The code must be suitably annotated to describe the process. Test results should be annotated to show how these relate to the code, the test plan and the original problem.

Learners will need to provide an evaluation of their solution based on the test evidence.

Group work can be used to deliver the content and skills but any work submitted must be the learner's own. Learners should be encouraged to be innovative and creative in how they approach solving the tasks.

As a guide, the programming project should take between 10–12 hours to complete, unless there are specific access requirements that should be considered. However, these are guidelines only.

Learners can use any suitable programming language which allows them to access all of the programming techniques as listed within the subject content. This may be:

- Drag and drop, for example:
  - Scratch
  - Gamemaker
  - Greenfoot
  - BYOB
  - AppInventor

- Textually derived, for example:
  - Python
  - Small Basic
  - Visual Basic/.NET
  - Java Script
  - Java
  - C# or other C family language
  - BASH
  - Delphi/Pascal/Lazarus

For further information, please read The Teacher's Handbook which accompanies this specification.

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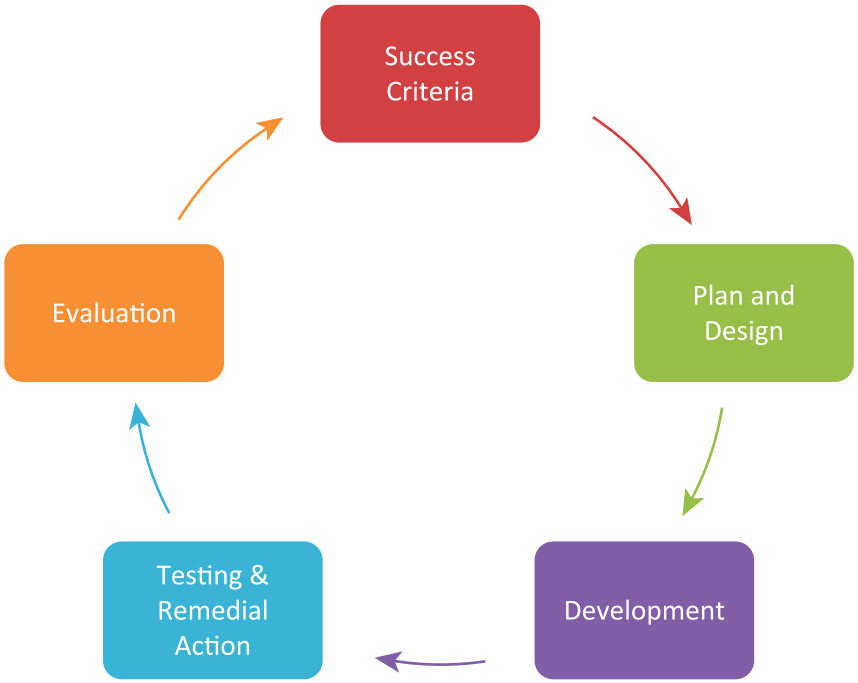
The project can be carried out in many ways but is best approached using an iterative process for developing a coded programming project, shown below:



Programming techniques required:

Learners should have studied the following programming techniques before starting the programming project

- Identify and use variables, operators, inputs, outputs and assignments
- Understand and use the three basic programming constructs used to control the flow of a program:
  - Sequence
  - Selection
    - IF Statements
  - Iteration
    - Count and condition controlled loops: WHILE and FOR
- Understand and use basic string manipulation
  - Concatenation only
- Use different types of data:
  - Integer
  - Boolean
  - Real numbers
  - Text
  - Character and string
- Define and use arrays (or equivalent) as appropriate when solving problems
  - one dimensional arrays (or similar)
- Use the arithmetic operators as listed within the specification
- Use the Boolean operators as listed within the specification

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2c. Prior knowledge, learning and progression

- No prior learning of the subject is required and there are no prior qualifications required in order for learners to enter for an Entry Level Certificate in Computer Science.

- Progression – this Entry Level Certificate is a general qualification designed to enable learners to progress either directly to employment or to other foundation level courses. The success of learners during the course may signpost their suitability for progression on to the GCSE (9–1) Computer Science course (J276).

- Progression Pathways: The entry level can be used as a pre-GCSE (9–1) course to enable centres to determine the best route for their learners. If using the course as a pre-GCSE (9–1) course then the end of section's tests (see section 3a) and Programming project task (see section 3f) can be used to provide regular information as to the progression and progress of the learner. Using this information, centres can then decide whether to continue the learner on the Entry Level course or transfer the learner to GCSE (9–1). If using Entry Level route the learners can be presented the Bronze, Silver or Gold award certificate based on the total % of marks achieved (see Appendix 5a) for tests and Programming project completed for all parts of the content within the qualification (see section 3a) as a motivational award.

Find out more at www.ocr.org.uk

3 Assessment of Entry Level Certificate in Computer Science

3a. Forms of assessment

OCR's Entry Level Certificate in Computer Science is a single entry qualification consisting of three sections that learners must complete in order to obtain an Entry Level Certificate in Computer Science.

All of the OCR set tests will be assessed by the centre and externally-moderated by OCR.

There are four written tests in total, 30 minutes each, as listed below:

- Computer Systems – CS1 and CS2 **OR** CS3 and CS4
  - Computer hardware and software
  - Computer memory, storage and moral, legal and environmental concerns
- Computational thinking, algorithms and programming – CTAP1 and CTAP2 **OR** CTAP3 and CTAP4
  - Computational logic and algorithms
  - Programming techniques and data representation

It is important to note that CS1 and CS2 form one assessment of Computer Systems, and CS3 and CS4 form an alternative (re-sit) assessment of Computer Systems. Therefore, you must submit these tests as a unit and cannot mix, say, CS1 and CS4 as a submission for Computer Systems. However, you may submit CS1 & CS2 for Computer Systems, and then CTAP3 & CTAP4 for Computational thinking, algorithms and programming.

Submission of tests	**Submit either**				
Computer Systems	CS1	CS2	or	CS3	CS4
	and either				
Computational thinking, algorithms and programming	CTAP1	CTAP2	or	CTAP3	CTAP4

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Computer Systems	
40% of total marks 40 marks 2 × 30 minutes tests	This section consists of four broad sections. OCR set tests must be taken **after** teaching a set of sections as listed below: **Computer Systems Test 1 (CS1)/Test 3 (CS3)** • Computer hardware • Computer software **Computer Systems Test 2 (CS2)/Test 4 (CS4)** • Computer memory and storage • Moral, legal, cultural and environmental concerns In preparation for the assessment, teachers must allow sufficient teaching time to increase the learner's depth of knowledge and understanding. You must use a single set of tests for submission and cannot combine different tests for submission. The tests are available for download from OCR Interchange from September 2016. Teachers must use the mark schemes provided by OCR to mark the tests. All sections of the content as listed above should be submitted to OCR together for certification.
Computational thinking, algorithms and programming	
40% of total marks 40 marks 2 × 30 minutes tests	This section consists of four broad sections. OCR set tests must be taken **after** teaching a set of sections as listed below: **Computational thinking, algorithms and programming Test 1 (CTAP1)/Test 3 (CTAP3)** • Computational logic • Algorithms **Computational thinking, algorithm and programming Test 2 (CTAP2)/Test 4 (CTAP4)** • Programming techniques • Data representation In preparation for the assessment, teachers must allow sufficient teaching time to increase the learner's depth of knowledge and understanding. You must use a single set of tests for submission and cannot combine different tests for submission. The tests are available for download from OCR Interchange from September 2016. Teachers must use the mark schemes provided by OCR to mark the tests. All sections of the content as listed above should be submitted to OCR together for certification.

Programming project	
20% of total marks 20 marks	Learners complete a programming project using any suitable programming language which allows learners to access all of the programming techniques as listed within the subject content. This may be: • Drag and drop, for example: ○ Scratch ○ Gamemaker ○ Greenfoot ○ BYOB ○ AppInventor • Textually derived, for example: ○ Python ○ Small Basic ○ Visual Basic/.NET ○ Java Script ○ Java ○ C# or other C family language ○ BASH ○ Delphi/Pascal/Lazarus The task must be chosen from three programming projects provided by OCR. It is expected that learners will be familiar with the range of programming techniques listed within the specification before attempting the Programming Project. In addition to the time spent completing the task, there should also be further teaching time to increase the learner's depth of knowledge and understanding in preparation for the internal assessment. The programming task is internally assessed and externally-moderated.

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3b. Assessment objectives (AO)

There are 3 Assessment Objectives in OCR Entry Level Certificate in Computer Science. These are detailed in the table below. Learners are expected to:

	Assessment Objective
AO1	Demonstrate Knowledge and Understanding Learners demonstrate their ability to recall, select and communicate their knowledge and understanding of concepts, issues and terminology.
AO2	Apply Knowledge and Understanding Learners demonstrate their ability to apply their knowledge and understanding.
AO3	Analyse, Evaluate and Apply Learners demonstrate their ability to analyse problems in computational terms to make reasoned judgement and to design, program, and evaluate solutions.

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AO weightings in OCR Entry Level Certificate in Computer Science

The relationship between the Assessment Objectives and the sections of subject content are shown in the following table:

Assessments	% of overall Entry Level Certificate in Computer Science (R354)			Total
	AO1	AO2	AO3	
Computer systems	19	12	9	40%
Computational thinking, algorithms and programming	14	12	14	40%
Programming project	2	6	12	20%
Total	35	30	35	100%

3c. Total Qualification Time

Total Qualification time (TQT) is the total amount of time, in hours, expected to be spent by a learner to achieve a qualification. It includes both guided learning hours and hours spent in preparation, study and assessment. The Total Qualification time for Entry Level Certificate in Computer Science is 120 hours.

3d. Assessment availability

There will be one examination series available each year in May/June to **all** learners. Two versions of each test will be available on OCR Interchange. Resits are permitted by using either available set provided that the same test is not sat twice within a two week period.

This specification will be certificated from the June 2017 examination series onwards

3e. Retaking the qualification

Learners can retake the qualification as many times as they wish.

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3f. Internal assessment tasks

All internal assessment tasks and programming projects are set by OCR that the centre can choose from.

Assessment	Set by OCR
Computer systems	✓
Computational thinking, algorithms and programming	✓
Programming project	✓

The internal tests and programming projects can be found on OCR Interchange: https://interchange.ocr.org.uk/

3g. Programming Project – marking criteria

Work submitted for the Entry Level Certificate should reflect the standard expected for a learner after a full Entry Level course of study.

All sections of the subject content for OCR's Entry Level Certificate in Computer Science are internally assessed and externally moderated.

Learners' work should be marked by the centre assessor to the marking criteria in the relevant table, using a 'best-fit' approach.

Marking should be positive, rewarding achievement rather than penalising failure or omissions. The awarding of marks must be directly related to the marking criteria.

Teachers should use their professional judgement in selecting band descriptors that best describe the work of the learner to place them in the appropriate band for each assessment objective section.

To select the most appropriate mark in the band descriptor, teachers should use the following guidance:

- where the learner's work convincingly meets the statement, a suitable 'best fit' mark within the highest mark band should be awarded
- where the learner's work adequately meets the statement, a suitable 'best fit' mark within the middle mark band should be awarded
- where the learner's work just meets the statement, a suitable 'best fit' mark within the lowest mark band should be awarded.

Teachers should use the full range of marks available to them and award full marks in any band for work which fully meets that descriptor.

There should be clear evidence that work has been attempted and some work produced. If a learner submits no work for a section of the content then the learner should be indicated as being absent from that section. If a learner completes any work at all for the sections of the subject content then the work should be assessed according to the marking criteria and the appropriate mark awarded, which may be zero.

OCR set Programming Project tasks will be available on OCR's Interchange. Guidance on how to access these tasks from Interchange is available on the OCR website at http://www.ocr.org.uk/ocr-for/exams-officers/support-and-tools/interchange/step-by-step-guides/. Centres must ensure that learners undertake a suitable task to use a programming language which allows full access to the programming techniques described within the

specification. The Programming Projects will be set by OCR and centres will choose one for their Entry Level Certificate in Computer Science qualification.

Within this specification, OCR expects teachers to equip the learners with the knowledge, understanding and skills before they begin the Programming Project. It should be remembered that learners are required to reach their own judgements and conclusions without any guidance or assistance. When supervising the Programming Project, teachers are expected to offer learners advice on how best to prepare for the research/data collection elements of this section.

The learners must be formally supervised when working on the Programming Project. Formal supervision means under direct teacher supervision: teachers must be able to authenticate the work and there must be acknowledgement and referencing of any sources used.

When supervising Programming Project, teachers are expected to:

- exercise continuing supervision of work in order to monitor progress and to prevent plagiarism
- ensure that the work is completed in accordance with the specification requirements and can be assessed in accordance with the specified marking criteria and procedures.
- annotate where learners may have received teacher support and indicate the level of support. Where a teacher has provided support, marks must reflect the level of support as described within the permitted support within this page and awarded appropriately within the Unit Record Sheet (URS).

Learners must work independently to produce their own final piece of work. It is the responsibility of the Head of Centre to ensure the controls set out in the specification and in the individual sections of the subject contents are imposed.

It is anticipated that learners will spend between 10–12 hours in producing the work for this section of the subject content. It is essential that any material directly used from a source is appropriately referenced.

Permitted Support

Teachers **may**:

- explain the task and advise on resources
- interrogate learners to ensure that the work is their own
- provide a copy of the mark scheme to learners
- provide support during the planning and design stages with a minimal solution that may not address all the requirements but allow the learners to progress to the development stage.

Teachers **must not**:

- give detailed advice and suggestions as to how the work may be improved in order to meet the assessment criteria. This includes indicating errors or omissions and personally intervening to improve the presentation or content of the work
- practise the task with the learners
- support the development of programming project and code other than providing general syntax support
- support testing, evaluation and conclusions of the programming project
- practise tasks which are similar in nature with the learners
- provide templates, model answers or feedback on drafts
- publish any solved answers of the programming project tasks online
- allow learners to take tasks home with them.

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Programming Project Mark Scheme

Success Criteria (0–3 marks available)

Marks			
Marking criteria	**1**	**2**	**3**
AO1–0 AO2–3 AO3–0	• There is an attempt to identify some success criteria, but these only cover part of the solution and are incomplete	• There is an attempt to identify most success criteria adequately, and these relate to the majority of the requirements listed	• There is an attempt to convincingly identify the majority of success criteria, and these relate to the requirements listed

0 marks = no response or no response worthy of credit.

Planning and Design (0–6 marks available)

Marks			
Marking criteria	**1–2**	**3–4**	**5–6**
AO1–0 AO2–2 AO3–4	• There is a statement(s) of what the intended program will do. This may not always reflect what the task requires • There is an attempt to create a flow chart for the program, but this is incomplete or appears non-functional. • There are some tests given, but these are basic and use normal data only • There is an attempt to identify any Input, Output and Processing needs.	• The learner has outlined how their program will work and this adequately matches any success criteria given • There is a flow chart produced that adequately maps a working solution to the problem, although it may contain some errors • There are a range of tests suggested using normal and erroneous data, but do not cover the entire solution proposed • Input, Output and Processing needs are identified and adequately meet the solution, although may not be complete.	• The learner has described how their program will work and this convincingly matches the needs of the task. • There is an accurate flow chart representing the proposed solutions that convincingly produces a functional solution. • There are normal and erroneous tests for all parts of the solution as needed and the tests would provide convincing evidence that the solution is effective. • Input, Output and Processing needs are clearly identified and cover all areas of the solution

0 = no response or no response worthy of credit.

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Development (0–5 marks available)

Marks			
Marking criteria	**1**	**2 – 3**	**4–5**

AO1–0
AO2–0
AO3–5
	• There is evidence of some of the following techniques:
	  • Input
	  • Output
	  • Data Storage
	  • Selection
	  • Iteration
	  • Arithmetic Operators
	  • Comments
		• There is evidence of a range of the following techniques, which may not always be used efficiently:
		  • Input
		  • Output
		  • Data Storage
		  • Selection
		  • Iteration
		  • Arithmetic Operators
		  • Comments
			• There is convincing evidence of a range of the following techniques, which are generally used efficiently:
			  • Input
			  • Output
			  • Data Storage
			  • Selection
			  • Iteration
			  • Arithmetic Operators
			  • Comments

	• There is little evidence of the development of the program, which will be limited and may not fully describe the steps taken to reach a solution.	• There is adequate evidence showing the development of the solution, but this may contain omissions.	• There is convincing evidence of the development of the solution and it provides a full narrative of the process.
	• The explanations of the code leave doubt as to the understanding of the techniques used.	• The explanations adequately support the learners understanding of the techniques used.	• Explanations convincingly explain the learner's understanding of techniques used.

0 = no response or no response worthy of credit.

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Testing and Remedial Actions (0–3 marks available)

Marks			
Marking criteria	**1**	**2**	**3**
AO1–0 AO2–1 AO3–2	• The results of limited tests are evidenced with respects to success or failure • There is no or little evidence given to show an attempt to correct errors that are found in the solution	• The results of most tests are evidenced with respect to success or failure • There is some evidence given to show that errors have been adequately solved and re-tested	• The results of all tests are evidenced with respect to success or failure • There is convincing evidence that errors have been corrected and the program is functional

0 = no response or no response worthy of credit.

Evaluation (0–3 marks available)

Marks			
Marking criteria	**1**	**2**	**3**
AO1–2 AO2–0 AO3–1	• There are limited statements about whether the solution has been successful • The link between evidence of testing and Success Criteria is weak and vague	• There are some statements that adequately review the success of the project • The link between evidence of testing and Success Criteria is adequate	• There is full coverage of statements to reflect the Success Criteria • The link between evidence of testing and Success Criteria is convincing and covers all Success Criteria.

0 = no response or no response worthy of credit

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3h. Calculating qualification results

A learner's overall qualification grade for OCR Entry Level Certificate in Computer Science will be calculated by adding together their marks from the three sections taken to give their total mark. This mark will then be compared to the qualification level grade boundaries for the relevant exam series to determine the learner's overall qualification grade.

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4 Admin: what you need to know

The information in this section is designed to give an overview of the processes involved in administering this qualification so that you can speak to your exams officer. All of the following processes require you to submit something to OCR by a specific deadline. More information about the processes and deadlines involved at each stage of the assessment cycle can be found in the Administration area of the OCR website.

OCR's *Admin overview* is available on the OCR website at: https://www.ocr.org.uk/administration

4a. Pre-assessment

Estimated entries

Estimated entries are your best projection of the number of learners who will be entered for a qualification in a particular series. Estimated entries should be submitted to OCR by the specified deadline. They are free and do not commit your centre in any way.

Final entries

Final entries provide OCR with detailed data for each learner, showing each assessment to be taken. It is essential that you use the correct entry code, considering the relevant entry rules.

Final entries must be submitted to OCR by the published deadlines or late entry fees will apply.

All learners taking this Entry Level Certificate in Computer Science must be entered for R354.

Entry Option		Components		
Entry code	Title	Code	Assessment type	Submission method
R354 A	Computer Science	01	Non-exam assessment	OCR Repository
R354 B	Computer Science	02	Non-exam assessment	OCR Postal Moderation

4b. Special consideration

Adjustments to standard assessment arrangements are made on the basis of the individual needs of learners.

It is important, therefore, that centres identify as early as possible whether learners have disabilities or particular difficulties that will put them at a disadvantage in the assessment situation and select an appropriate qualification or adjustment that will allow them to demonstrate attainment.

The responsibility for providing adjustments to assessment is shared between your centre and OCR; for further information please read the Joint Council of Qualifications' (JCQ) booklet *https://www.jcq.org.uk/exams-office/access-arrangements-and-special-consideration/regulations-and-guidance.* There are sections providing eligibility criteria and details relating to the delivery of each access arrangement. Please pay particular attention to pages 96-97 in relation to Entry Level Certificate.

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Subject to any specified qualification restrictions, if a centre has approval from Access Arrangements Online for access arrangements for a GCSE or GCE learner, this approval extends to Entry Level Certificate qualifications.

The access arrangements permissible for use in the Entry Level Certificate qualifications are as follows:

Access Arrangements for Entry Level Certificate in Computer Science	
The arrangements listed on the right may be granted by the centre and do not need to be recorded. Evidence of need is not required to be held on file.	• Amplification equipment, taped questions and responses • Bilingual dictionary • Braillers • Brailling of non-secure assessment material • Closed Circuit Television (CCTV) • Colour naming by the invigilator for learners who are colour blind • Coloured overlays • Low vision aid/magnifier • Prompter • Read Aloud • Separate invigilation (within the centre) • Supervised rest breaks • Transcript • Word Processor (with spell check and grammar check disabled)
Where permitted by the specification, the arrangements listed to the right may be granted by the centre without prior approval from OCR, but a Form 11 (JCQ/EL/NF) must be completed and kept on the centre's files. Form 11 is available from www.jcq.org.uk.	• Computer Reader • Extra time in timed components • Practical Assistant • Reader • Scribe/Speech Recognition Technology • Sign Language Interpreter for front page instructions only The Form 11 (JCQ/EL/NF) must list the names and numbers of learners who were granted any of these arrangements.

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The access arrangements detailed above may be appropriate for learners with disabilities, special educational needs or temporary injuries impacting on their ability to access the assessment, but this is not an exhaustive list. Reasonable adjustments which may be appropriate for learners with disabilities have not been listed; applications should be made on an individual basis to OCR. Applications received will be considered in the context of the standards which must be met in each unit and the evidence of need.

Applications should be made to the Special Requirements Team at OCR (ocrspecialrequirementsteam@ocr.org.uk).

The JCQ document http://www.jcq.org.uk/exams-office/access-arrangements-and-special-consideration/regulations-and-guidance should also be referred to regarding post-assessment special consideration in cases of temporary illness, indisposition or injury, at the time of the examination/assessment. For Entry Level Certificate applications for special consideration should be submitted using Special Consideration Online, accessed via OCR Interchange.

4c. Admin of the Programming Project assessment

Regulations governing arrangements for internal assessments are contained in the JCQ *Instructions for conducting non-examination assessments.*

Level of Support

OCR expects teachers to supervise and guide learners who are undertaking work that is internally assessed. The degree of teacher guidance will vary according to the kind of work being undertaken. It should be remembered, however, that learners are required to reach their own judgements and conclusions. When supervising internally assessed tasks, teachers are expected to: offer learners advice about how best to approach such tasks exercise supervision of the work in order to monitor progress and to prevent plagiarism ensure that the work is completed in accordance with the specification requirements and can be assessed in accordance with the specified mark descriptions and procedures. Work should, wherever possible, be carried out under supervision. However, it is accepted that some tasks may require learners to undertake work outside the centre. Where this is the case, the centre must ensure that sufficient supervised work takes place to allow the teachers concerned to authenticate each learner's work with confidence.

Authentication of learner's work

Learners and centres must declare that the work submitted for assessment is the learner's own by completing a centre authentication form (CCS160). This information must be retained at the centre and be available on request to either OCR or the JCQ centre inspection service. It must be kept until the deadline has passed for centres to submit a review of results (RoR). Once this deadline has passed and centres have not requested a RoR, this evidence can be destroyed.

Head of Centre Annual Declaration

The Head of Centre is required to provide a declaration to the JCQ as part of the annual NCN update, conducted in the autumn term, to confirm that the centre is meeting all of the requirements detailed in the specification.

Any failure by a centre to provide the Head of Centre Annual Declaration will result in your centre status being suspended and could lead to the withdrawal of our approval for you to operate as a centre.

Private candidates

Private candidates may enter for OCR assessments.

A private candidate is someone who pursues a course of study independently but takes an examination or assessment at an approved examination centre. A private candidate may be a part-time student, someone taking a distance learning course, or someone being tutored privately. They must be based in the UK.

The Entry Level Certificate in Computer Science requires learners to complete OCR issued four written tests in total with two each from Computer Systems (CS1 and CS2 or CS3 and CS4) and Computational thinking, Algorithms and Programming (CTAP1 and CTAP2 or CTAP3 and CTAP4) subject contents as well as one programming Project (from three available) using full system life cycle. All tests and programming projects are available to download from OCR Interchange.

These tests and programming project are an essential part of the course and will allow learners to develop their computational thinking, algorithms and programming techniques skills for further study or employment as well as imparting important knowledge and understanding that is part of the specification.

Private candidates need to contact OCR approved centres to establish whether they are prepared to host them as a private candidate. The centre may charge for this facility and OCR recommends that the arrangement is made early in the course.

Further guidance for private candidates may be found on the OCR website: http://www.ocr.org.uk

Internal standardisation

Centres must carry out internal standardisation to ensure that marks awarded by different teachers are accurate and consistent across all learners entered for the component from that centre.

Moderation

The purpose of moderation is to bring the marking of internally-assessed components in all participating centres to an agreed standard. This is achieved by checking a sample of each centre's marking of learner's work.

Following internal standardisation, centres submit marks to OCR and the moderator. If there are 10 or fewer learners, all the work should be submitted for moderation at the same time as marks are submitted.

Once marks have been submitted to OCR and your moderator, centres will receive a moderation sample request. Samples will include work from across the range of attainment of the learners' work.

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There are two ways to submit a sample:

Moderation via the OCR Repository – Where you upload electronic copies of the work included in the sample to the OCR Repository and your moderator accesses the work from there.

Postal moderation – Where you post the sample of work to the moderator electronically using CD, DVD or USB Pen Drive. No paper based sample of work will be accepted for this qualification.

The method that will be used to submit the moderation sample must be specified when making entries. The relevant entry codes are given in Section 4a above.

All learners' work must be submitted using the same entry option. It is not possible for centres to offer both options within the same series.

Each learner's work should have a cover sheet attached to it with a summary of the marks awarded for the tasks. If the work is to be submitted in digital format, this cover sheet should also be submitted electronically within each learner's folder. For more information on the evidence required for moderation, see section 5e Files.

Centres will receive the outcome of moderation when the provisional results are issued. This will include:

Moderation Adjustments Report – Listing any scaling that has been applied to internally assessed components.

Moderator Report to Centres – A brief report by the moderator on the internal assessment of learners' work.

See Appendix 5e for file requirements.

4d. Results and certificates

Grade Scale

Entry Level qualifications are graded on the scale: Entry 3, Entry 2 and Entry 1, where Entry 3 is the highest grade available. Learners who fail to reach the minimum standard of Entry 1 will be Unclassified (U). Only subjects in which grades Entry 3, Entry 2 and Entry 1 are attained will be recorded on certificates.

Results

Results are released to centres and learners for information and to allow any queries to be resolved before certificates are issued.

Centres will have access to the following results information for each learner:

- the grade for the qualification
- the total mark for the qualification.

The following supporting information will be available:

- grade boundaries for each entry option.

Until certificates are issued, results are deemed to be provisional and may be subject to amendment.

A learner's final results will be recorded on an OCR certificate. The qualification title will be shown on the certificate as 'OCR Entry Level Certificate in Computer Science'.

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4e. Post-results services

A number of post-results services are available:

- **Review of results** – If you are not happy with the outcome of a learner's results, centres may request a review of their moderation.
- **Missing and incomplete results** – This service should be used if an individual subject result for a learner is missing, or the learner has been omitted entirely from the results supplied.

4f. Centre malpractice guidance

It is the responsibility of the Head of Centre to report (in writing) all cases of suspected malpractice involving centre staff or learners, to OCR compliance@ocr.org.uk.

When asked to do so by OCR, Heads of Centres are required to investigate instances of malpractice promptly, and report the outcomes to compliance@ocr.org.uk.

Further information is contained in the JCQ publication: *General and Vocational Qualifications – Suspected Malpractice in Examinations and Assessments* which is available from www.jcq.org.uk.

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5 Appendices

5a. Awarding of grades

The grades awarded for the Entry Level Certificate in Computer Science will be at three levels: Entry 1, Entry 2 and Entry 3.

All mark schemes have been written to address the following targeted thresholds:

Specification Grade	Entry 3	Entry 2	Entry 1
Target	80%	60%	40%

5b. Overlap with other qualifications

There is some overlap of content with the OCR GCSE (9–1) in Computer Science, although the assessment requirements are different. There may be a small degree of overlap between the content of this specification and those for other Entry Level Certificates in Computer Science.

5c. Key skills sections

This specification provides opportunities for the development of the Key Skills of *Communication, Application of Number, Information Technology, Working with Others, Improving Own Learning and Performance and Problem Solving* at Level 1. However, the extent to which this evidence fulfils the Key Skills criteria at these levels will be totally dependent on the style of teaching and learning adopted for each unit.

The following table indicates where opportunities may exist for at least some coverage of the various Key Skills criteria at Level 1 for each unit.

Unit	C 1	AoN 1	IT 1	WwO 1	IoLP 1	PS 1
R354	✓	✓	✓	✓	✓	✓

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5d. Mathematical skills requirement

In the context of Assessment Objective 2, 'apply' means using knowledge and understanding in a particular context or contexts. It includes both practical and theoretical contexts, and the use of computing-related mathematics within those contexts.

Mathematical Skills within the Entry Level Certificate in Computer Science are:

- Use of mathematical operators
  - Addition, Subtraction, Multiplication and Division
- Use of Boolean Comparison
  - Greater than a>b
  - Less than a<b
  - Equal to a==b
  - Not equal to a! = b
- Use of Boolean Logic
  - AND
  - OR
  - NOT
- Number System and Bases
  - Base 2 (Binary)
  - Base 10 (Denary)

Use of Calculators

Regulations governing examination arrangements are contained in the JCQ publication *Instructions for Conducting Examinations*.

Learners are permitted to use a scientific or graphical calculator for Entry Level in Computer Science. Calculators are subject to the rules in the document *Instructions for Conducting Examinations* published annually by JCQ (www.jcq.org.uk)

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5e. Files

Structure for evidence

An internal assessment portfolio is a collection of folders and files containing the learner's evidence. When using electronic storage, folders should be organised in a structured way so that the evidence can be accessed easily by a teacher or moderator. This structure is commonly known as a folder tree. It would be helpful if the location of particular evidence is made clear by naming each file and folder appropriately and by use of an index called 'Home Page'.

There should be a top level folder detailing the learner's centre number, learner number, surname and forename, together with the unit code R354, so that the portfolio is clearly identified as the work of one learner.

Each learner produces an assignment for internal assessment. The evidence should be contained within the learner's folder within the portfolio. This folder may contain separate files. Each filename must use the following naming convention: candidatenumber_candidatename_filename. Where multiple files exist, naming must indicate the contents of the file to the moderator. More information on the use of OCR Repository guide can be downloaded using this link http://www.ocr.org.uk/Images/15518-ocr-repository-centre-user-guide.pdf

Each learner's internal assessment portfolio should be stored securely, either in a secure area on the Centre's network, or other suitably secure storage device. Centres are reminded that it is good practice to keep a backup of all learners' work. This is especially important when sending electronically via postal submission. Prior to submitting the internal assessment portfolio to OCR, the centre should add the centre declaration form and Unit Record Sheet (URS) for the learner's submission.

Data formats for evidence

In order to minimise software and hardware compatibility issues it will be necessary to save learners' work using an appropriate file format.

Learners must use formats appropriate to the evidence that they are providing and appropriate to viewing for assessment and moderation. Open file formats or proprietary formats for which a downloadable reader or player is available are acceptable. Where this is not available, the file format is not acceptable.

Electronic internal assessment is designed to give learners an opportunity to demonstrate what they know, understand and can do using current technology. Learners do not gain marks for using more sophisticated formats or for using a range of formats. A learner who chooses to use only word documents will not be disadvantaged by that choice.

Evidence submitted for the Programming Project is likely to be in the form of a word processed document, or a PDF version of the submission.

To ensure compatibility, all files submitted must be in the formats listed below. Where new formats become available that might be acceptable, OCR will provide further guidance. OCR advises against changing the file format that the document was originally created in. It is the centre's responsibility to ensure that the electronic portfolios submitted for moderation are accessible to the moderator and fully represent the evidence available for each learner.

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Accepted File Formats

Movie formats for digital video evidence:

MPEG (*.mpg)

QuickTime movie (*.mov)

Macromedia Shockwave (*.aam)

Macromedia Shockwave (*.dcr)

Flash (*.swf)

Windows Media File (*.wmf)

MPEG Video Layer 4 (*.mp4)

Audio or sound formats:

MPEG Audio Layer 3 (*.mp3)

Graphics formats including photographic evidence:

JPEG (*.jpg)

Graphics file (*.pcx)

MS bitmap (*.bmp)

GIF images (*.gif)

Animation formats:

Macromedia Flash (*.fla)

Structured markup formats:

XML (*xml)

Text formats:

Comma Separated Values (.csv)

PDF (.pdf)

Rich text format (.rtf)

Text document (.txt)

Microsoft Office suite:

PowerPoint (.ppt)

Word (.doc)

Excel (.xls)

Visio (.vsd)

Project (.mpp)

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5f. Interim awards

The Entry Level Certificate in Computer Science course will lead to final certification by OCR at Entry Level 1, 2 or 3. However, this specification also provides the opportunity for interim certification to be achieved by learners at stages during the course. These interim certificates are available at three different levels: Bronze, Silver and Gold. These certificates are awarded to learners by the centre in recognition of the progress they have made.

The centre may award interim certificates at Bronze, Silver and Gold, as described below. These interim awards provide motivation and maintain engagement by recognising learners' progress in the OCR Entry Level Certificate in Computer Science. The certificates are available to download via Interchange (https://interchange.ocr.org.uk/). Choose 'coursework and tests' and then 'entry level tasks'. Alternatively use this link, if you are already logged into the Interchange https://interchange.ocr.org.uk/modules/controlledmaterials/controlledmaterialsentrylevel.aspx?menuindex=246

Awards are based on credit accumulation during the course. **Any** combination of marks gained from the interim assessment tasks can be used to reach the threshold total for each level of interim awards.

Teachers will need to monitor the performance of learners at frequent intervals during the course. As they approach the three key points for the interim awards of Bronze, Silver and Gold, learners should be aware of how close they are to achieving their award.

Bronze Award (40%): Threshold: 40 marks
An example of a performance for Bronze award would be:

Computer Systems:
Computer hardware and software – 7 marks out of 20
Computer memory and storage, Moral, legal, cultural and environmental concerns – 8 marks out of 20

Computational thinking, algorithms and programming:
Computational logic and algorithms – 8 marks out of 20
Programming techniques and data representation – 7 marks out of 20

Programming project:
10 marks out of 20
This represents an overall achievement of 40%.

Silver Award (60%): Threshold: 60 marks
An example of a performance for Silver award would be:

Computer Systems:
Computer hardware and software – 12 marks out of 20
Computer memory and storage, Moral, legal, cultural and environmental concerns – 13 marks out of 20

Computational thinking, algorithms and programming:
Computational logic and algorithms – 13 marks out of 20
Programming techniques and data representation – 10 marks out of 20

Programming project –
12 marks out of 20
This represents an overall achievement of 60%.

Gold Award (80%): Threshold: 80 marks
An example of a performance for Gold award would be:

Computer System:
Computer hardware and software – 17 marks out of 20
Computer memory and storage, Moral, legal, cultural and environmental concerns – 17 marks out of 20

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Computational thinking, algorithms and programming:

Computational logic and algorithms – 16 marks out of 20

Programming techniques and data representation – 14 marks out of 20

Programming project:

16 marks out of 20

This represents an overall achievement of 80%.

Interim certificates for Bronze, Silver and Gold awards can be awarded by centres at any time during the Entry Level course, but final grade certificates will only be issued by OCR when learners have completed the OCR Entry Level Certificate in Computer Science.

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Summary of updates

Date	Version	Section	Title of section	Change
May 2018	1.1	Front cover	Disclaimer	Addition of disclaimer
September 2018	1.2	4a	Pre-assessment	Updated entry codes
January 2019	1.3	3c	Total Qualification Time	Insertion of new section
January 2020	1.4	i) 4c ii) 4e	i) Admin of the Programming Project assessment ii) Post-results services	i) Enquiries about results changed to Review of results ii) Enquiries about results changed to Review of results Update to specification covers to meet digital accessibility standards

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Contact the team at:

01223 553998

computerscience@ocr.org.uk

@OCR_ICT

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