

Accredited

# GCSE COMPUTING

[www.ocr.org.uk/computing/gcse](http://www.ocr.org.uk/computing/gcse)





# CSE COMPUTING AND AVAILABL

# ING IS OUT OF PILOT LE TO ALL CENTRES

We've involved teachers and consulted with key stakeholders in the Computing teaching community throughout the development process. We've done this so that our GCSE Computing specification, support materials and publisher resources will provide you with everything you need to teach this qualification with confidence.



## CSE COMPUTING

You and your students can benefit from our Computing specification because:

- The course will give students a real, in-depth understanding of how computer technology works. Students will no doubt be familiar with the use of computers and other related technology from their other subjects and elsewhere. However, the course will give them an insight into what goes on 'behind the scenes', including computer programming, which many students find absorbing.
- The course provides excellent preparation for higher study and employment in the field of Computer Science. The increasing importance of information technologies means there will be a growing demand for professionals who are qualified in this area. Students who've taken a GCSE in Computing and who then progress to study the subject at A Level or university will have an advantage over their colleagues who are picking up the subject at these levels.
- The course will develop critical thinking, analysis and problem-solving skills through the study of computer programming. For many students, it'll 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. In this respect, the course will make an excellent preparation for students who want to study or work in areas that rely on these skills, especially where they are applied to technical problems. These areas include engineering, financial and resource management, science and medicine.

### MAKING GCSE COMPUTING EASY TO MANAGE

We want to make it as easy as possible for you to manage this qualification.

We have:

- Made available a range of Computing support materials designed to save you time in preparing to teach our specification – including specimen assessment materials and a Guide to Curriculum Planning.
- Tailored our publisher resources to this specification and are available from our website.

# COURSE SUMMARY

Here's a summary of the course details and the Assessment Objectives for GCSE Computing:

Unit title and description	Assessment and duration	Weighting
Unit A451: Computer systems and programming		
This unit covers the body of knowledge about computer systems on which the examination will be based.	1 hour 30 minutes Written paper 80 marks	40%
Unit A452: Practical investigation		
An investigative computing task, chosen from a list provided by OCR, which assesses the following: research, technical understanding, analysis of problem, historical perspective, use of technical writing skills, recommendations/evaluation.	Controlled assessment Investigative task. OCR-set scenario with a choice of research tasks. 45 marks	30%
Unit A453: Programming project		
Students will need to: <ul style="list-style-type: none"> <li>• Understand standard programming techniques</li> <li>• Be able to design a coded solution to a problem including:               <ul style="list-style-type: none"> <li>- Develop suitable algorithms</li> <li>- Design suitable input and output formats</li> <li>- Identify suitable variables and structures</li> <li>- Identify test procedures.</li> </ul> </li> <li>• Create a coded solution fully annotating the developed code to explain its function</li> <li>• Test their solution:               <ul style="list-style-type: none"> <li>- To show functionality</li> <li>- To show how it matches the design criteria</li> <li>- Identifying successes and any limitations.</li> </ul> </li> </ul>	Controlled assessment Programming task. Design, develop and test a solution to a problem within the OCR-set scenario. 45 marks	30%

## Assessment Objectives

Students are expected to demonstrate the following in the context of the content described:

- **AO1 Recall, select and communicate**  
Students demonstrate their ability to recall, select and communicate their knowledge and understanding of computer technology
- **AO2 Apply knowledge, understanding and skills**  
Students demonstrate their ability to apply knowledge, understanding and skills to solve problems by using computer programs
- **AO3 Analyse and evaluate**  
Students demonstrate their ability to analyse, evaluate, make reasoned judgements and present conclusions

# CONTROLLED ASSESSMENT FAQs

## WHAT IS CONTROLLED ASSESSMENT?

Controlled assessment is coursework in a supervised environment or classroom and will be under different levels of control. Controlled assessment has been introduced by QCA to address some of the issues raised in coursework reviews, such as plagiarism.

## HOW MUCH WILL CONTROLLED ASSESSMENT BE WORTH?

In GCSE Computing, controlled assessment will be worth 60% of a learner's final mark.

## WHY IS CONTROLLED ASSESSMENT BEING INTRODUCED BY QCA?

There are a number of reasons. Firstly, it allows students the opportunity to produce an original response without the drawbacks of 'over-preparation'. It also allows greater freedom, while still allowing centres more control than is offered in examined units. Your centre decides when your students do the assessment, and you can contextualise tasks to meet your own students' needs.

Another advantage is that you can be confident that work is authentic, which will mean improved reliability and validity.

## WHO SETS THE TASK?

This is done by awarding bodies. Tasks will be reviewed every two years, and will be released in the late spring to allow you to prepare for teaching them in the following academic year.

## HOW MUCH TIME WILL CONTROLLED ASSESSMENT TAKE?

Different tasks will have different amounts of time allocated to them, and centres will be informed about these by the awarding body. You will be advised of the amount of time you should spend preparing students for each task, as well as a set time limit for completion of the final response after formal teaching has stopped.

Although the time for completing the final response will be set, centres can decide when this time is allocated, and how to split the time. For example if four hours are allowed, you may wish to have students use this as one session, or split the time up throughout several different sessions (e.g. four one-hour sessions). This allows centres to work controlled assessment around their existing timetables.

## WHEN CAN I DO CONTROLLED ASSESSMENT?

The task can be completed in Years 9, 10 or 11. You can complete the task at any point in the academic year, provided that you meet the deadline for submission.

## HOW WILL IT BE SUPERVISED?

The final response to the task must be supervised, either by the class teacher or another supervisor. It is up to you whether you wish to use your classrooms or make other arrangements. If you choose to divide the allowed time between several sessions, centres must ensure that all work is handed in at the end of each session and held securely. Students may not bring notes in with them to these final response sessions, and teachers must not comment or give feedback on the work while it is being completed.

## HOW WILL CONTROLLED ASSESSMENT RESPONSES BE MARKED?

Teachers will mark it, much as they do now, using mark schemes supplied by the awarding body. Work will then be moderated by the awarding body.

We provide extensive guidance on controlled assessment at all stages of the process.

## WHERE CAN I ACCESS THE CONTROLLED ASSESSMENT TASKS?

Some specimen controlled assessment tasks is available on our website. However, the live assessment tasks are available on Interchange.

We provide extensive guidance on controlled assessment at all stages of the process.



## SUPPORTING YOU ALL THE WAY

We recognise that the introduction of this specification will bring challenges for implementation and teaching. Our aim is to help you at every stage and we have produced a practical package of support in close consultation with teachers and other experts so that we can make the qualification work for you. The support is designed to save you time while you prepare for and teach this specification.

### AN EVEN BETTER SERVICE

Our core support services includes:

- INSET training
- Schemes of work and lesson plans
- Teacher's handbook
- Specimen assessment materials including mark schemes
- Guide to controlled assessment
- Sample controlled assessment materials
- Guide to curriculum planning
- Endorsed publisher partner resources
- Social network where you can communicate with other subject specialists to share knowledge, resources, views and ideas at [www.social.ocr.org.uk](http://www.social.ocr.org.uk)
- Interchange – a completely secure, free website that helps you and your exams officer save time on administrative tasks at examination time
- e-alert updates – keep up to date by email. Register online at [www.ocr.org.uk/updates](http://www.ocr.org.uk/updates)
- answers@ocr – a web based service where you can browse hot topics, FAQs or email us with your questions. Visit <http://answers.ocr.org.uk>





# PUBLISHER SUPPORT

Working as OCR's publisher partner for Computing, Hodder Education have produced new digital resources to support this specification.

For more information and publication dates, please visit [www.ocr.org.uk/computing/gcse](http://www.ocr.org.uk/computing/gcse) and choose *Published resources* from the menu on the right.



# INSET TRAINING – DESIGNED FOR YOU

Our GCSE Computing *Get Ahead* events include information about this specification direct from the experts. They provide useful information and an opportunity to chat with our team. Keep up to date with the details of training dates and locations by visiting [www.ocreventbooker.org.uk](http://www.ocreventbooker.org.uk).

## GET AHEAD – IMPROVING DELIVERY AND UNDERSTANDING OF UNITS A451, A452 AND A453

This course will suit you, whether you're a newly qualified teacher or an experienced teacher new to our specification.

These will be constructive full-day courses that will provide an overview of key issues relating to the planning and delivery of this specification. Further details are available on [www.ocreventbooker.org.uk](http://www.ocreventbooker.org.uk).



# INTRODUCING OCR

We're a leading UK awarding body, providing an exciting range of qualifications to meet the needs of students of all ages and abilities.

We want to help you make the most of your passion for your subject and believe in developing specifications that help you bring it to life, so students are more likely to engage with it and achieve more. We listen to and learn from you to help us improve our qualifications and support services, and to make sure you and your students get as much as possible from our qualifications.

You'll receive full support when you're teaching our qualifications. You can enjoy training events, and choose from a useful selection of teaching materials and resources – all written for you by expert developers to make working with us easier and more rewarding.

# NEXT STEPS – YOUR CHECKLIST

We hope we've whetted your appetite to find out more about our GCSE Computing specification. Our range of support services will certainly help you to do just that. Why not check them out today.

- Bookmark [www.ocr.org.uk/computing/gcse](http://www.ocr.org.uk/computing/gcse)
- Be among the first to hear about support materials and resources as they become available. Register for email updates at [www.ocr.org.uk/updates](http://www.ocr.org.uk/updates)
- Book your INSET training place online at [www.ocreventbooker.org.uk](http://www.ocreventbooker.org.uk)
- Apply to be an OCR approved centre at [www.ocr.org.uk/administration](http://www.ocr.org.uk/administration)
- Join our social network at [www.social.ocr.org.uk](http://www.social.ocr.org.uk)

## NEED MORE HELP

We're here to help you with specialist advice, guidance and support for those times when you simply need a more individual service.

Here's how to contact us for specialist advice:

**By phone:** 01223 553998

**By email:** [general.qualifications@ocr.org.uk](mailto:general.qualifications@ocr.org.uk)

**By fax:** 01223 552627

**By post:** Customer Contact Centre, OCR, Progress House,  
Westwood Business Park, Coventry CV4 8JQ

## Contact us

Keep up to date on the latest news by registering to receive e-alerts at [www.ocr.org.uk/updates](http://www.ocr.org.uk/updates)

Telephone 01223 533998

Facsimile 01223 552627

Email [generalqualifications@ocr.org.uk](mailto:generalqualifications@ocr.org.uk)

