

Science Level 2



OCR
Nationals

Individual Talent
National Success

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OCR Nationals are exam-free, vocationally-related qualifications that take an engaging, practical approach to learning and assessment.

They're industry-relevant, geared to key sector requirements and very popular with schools and colleges because they suit such a broad range of learning styles and abilities.



Why choose OCR Nationals?

3,000 UK centres currently deliver OCR Nationals to candidates of all abilities. They're popular with candidates and teachers alike. In fact more than 750,000 students have studied and enjoyed OCR Nationals over the past 6 years.

There are many good reasons for choosing OCR Nationals...

- candidates develop the vital practical and applicable skills needed by today's employers
- they suit a very wide range of learning styles because they focus on ongoing assessment
- centres enjoy free support, advice, guidance and twice yearly moderation visits
- there's a range of qualification and unit options to choose from
- they attract DfE School and College Achievement and Attainment Table recognition
- they attract UCAS points at Level 3, helping candidates enter higher education.

Relevant, flexible qualifications

OCR Nationals are flexible and enable teachers to set assignments that keep up with technological advances and changes in industry. That means they're highly relevant to today's employment market.

OCR Nationals candidates practise and develop strong skills vital for the modern workplace, gaining genuine insight into a variety of exciting sectors and industries.

Dedicated ongoing support

Two annual visits from OCR Visiting Moderators gives teachers solid support and guidance.

Your Moderator will check your internal marking and assessment for you, make sure grades are valid and consistent and share best practice on an ongoing basis.

A means of measuring success

Some candidates respond better to continual assessment than exams. OCR Nationals let candidates of every ability gain qualifications that represent their true understanding and ability.

Continual assessment and learning support gives candidates clear ongoing indications of their progress, which helps them achieve real success.

Flexible start dates, no entry deadlines

Candidates can start their OCR Nationals qualifications at any time of year, either individually or as part of a group. Because there are no entry deadlines, teachers can mark course units at any time and in any order to suit their workload.



OCR Level 2 Nationals in Science

There's a wealth of Key Stage 4 pathway choices available for science, and more students are studying OCR Nationals in Science every year. Why? Because they:

- take a broad approach to Science, enabling students to develop workplace skills without having to choose between biology, chemistry and physics
- are challenging yet attainable, designed to meet the needs and expectations of employers by giving students exposure to vital practical, hands-on skills
- give students an excellent understanding of the commercial applications of science
- provide the opportunity to explore specialist areas such as forensic science, science in sport and the science behind health and body care products.

Qualification structure

Level 2 in Science is offered as two separate qualifications, designed to accommodate a range of learning styles and needs.

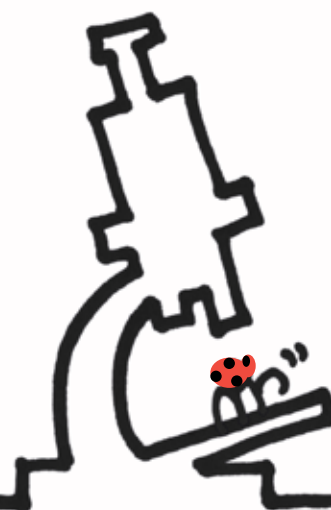
OCR Level 2 Nationals	Total Guided Learning Hours (glh)	Number of units	Number of mandatory units (60 glh)	Qualifications at same level and of similar size
Award	180	3	Units 1 & 2	2 GCSEs grades A*–C
Certificate	360	6	Units 1–4	4 GCSEs grades A*–C

Internal assessment and external moderation

Units are first internally assessed and standardised then an OCR Visiting Moderator will externally moderate a sample during a visit. There are no external tests or exams, and ongoing assessments and moderations can take place at any time.

Common sense certification

Units are graded Pass, Merit or Distinction. Awards and Certificates are graded in the same way. Each unit is certificated individually and full award certificates are issued automatically when candidates complete the prerequisite number of units.



Level 2 – unit by unit

Mandatory units

Unit 1 – Best practice in science

Gives students a comprehensive introduction to scientific research by teaching them about:

- preparing laboratory materials and equipment
- following standard procedures safely
- carrying out sampling and testing operations
- gaining a practical understanding of working in aseptic room conditions.

Unit 2 – Materials science

Looks at materials science, teaching students about:

- identifying and testing materials to ensure they're fit for a specific purpose
- understanding the structure and properties of different materials
- witnessing how scientific theories and models predict the development and use of materials
- how materials are obtained and manufactured
- looking at ways of testing the physical properties and usability of materials.

Unit 3 – Forensic science

Teaches students about using practical modern forensic investigation techniques for:

- examining crime scenes
- collecting and analysing evidence
- planning a forensic investigation
- interpreting and presenting report findings.

Unit 4 – Food science

Covers the key scientific aspects of food production including:

- how to grow organisms under optimum conditions
- how to modify organisms to develop food products
- studying the basic food types and the nutrients needed for a balanced diet
- studying food preservation and packaging
- finding out about the role of genetics in modifying food production.

Optional units

Unit 5	Science of health and body care products
Unit 6	Science of construction
Unit 7	Science and the environment
Unit 8	Science in sport
Unit 9	Investigating energy sources
Unit 10	Industrial science
Unit 11	The science of the universe and humanity [†]
Unit 12	Career planning for science*
Unit 13	Work experience in science*

[†] Students under 16 must study Unit 11 to meet the statutory requirements of the Key Stage 4 Programme of Study for science.

* Only one of units 12 and 13 will count towards a full award. If candidates choose to complete both, one will count towards the full certificate and the other will be recognised on a unit certificate.



Administration Overview

As with everything to do with OCR Nationals, we try to make your life easier. Follow the simple steps below to implement the qualification in your centre.

7 Steps to Achievement

1	<h3>CENTRE APPROVAL</h3> <p>Fill in the online form at www.ocrnationals.com/approval to get your Interchange account details and OCR Nationals Administration Guide.</p>
2	<h3>ENTER YOUR CANDIDATES</h3> <p>Enter your candidates via Interchange or EDI. We'll assign an expert OCR Visiting Moderator when you register your first candidate. They'll contact you to agree the date for their first visit. We provide two free Moderator visits per academic year with extra visits available at a small cost.</p>
3	<h3>ASSESSMENT</h3> <p>You internally assess and standardise your candidates' work before the Moderator visits.</p>
4	<h3>SUBMIT YOUR CLAIM</h3> <p>Let the Moderator know which candidates and units are ready to be moderated using Interchange to submit the claim. No need to send candidates' work; all assessment and moderation occurs within your centre.</p>
5	<h3>PREPARE YOUR SAMPLE</h3> <p>Your Moderator will let you know, via Interchange, which candidates' work will be moderated.</p>
6	<h3>MODERATION VISIT</h3> <p>Your Moderator will confirm the grades achieved and provide feedback, advice, guidance and share best practice during their visit.</p>
7	<h3>CERTIFICATES</h3> <p>We issue unit and full award certificates automatically after the visit. The results, sent by EDI every month, are available in Interchange.</p>

OCR Nationals in Science

Adopting a new specification can appear daunting. There's a lot of information to weigh up; the demands of the course, the quality of support and the needs and expectations of teachers and candidates. Here's some sensible advice to help you make the best decision.

Preparing for first teaching

1	MAKE THE MOST OF THE OCR WEBSITE <p>We've provided a full list of units online. While the overall programme of study might be familiar, it's important to check each unit specification to make sure you're happy with the learning outcomes, knowledge, understanding and skills.</p>
2	TAKE A TOUR OF OUR MODEL ASSIGNMENTS <p>They give a clear idea about the type of tasks you can set. They can be used directly, adapted or used as templates for completely new assignments.</p>
3	MAKE GOOD GRADING DECISIONS <p>With the Centre Handbook and Admin Guide to cross reference, check our model assignments, which come complete with Moderators' commentary designed to guide your grading decisions.</p>
4	GET SOCIAL <p>Visit our social media site (www.social.ocr.org.uk) By registering you will have FREE access to a dedicated platform where teachers can engage with each other – and OCR – to share best practice, offer guidance and access a range support materials produced by other teachers such as lesson plans, presentations, videos and links to other helpful sites.</p>
5	ENJOY SUPPORT AND GUIDANCE <p>It's wise to review our Chief Coordinator's annual report for generic guidance and explore their summary of key issues from the previous academic year.</p>
6	GET GREAT TRAINING <p>Check OCR's INSET training programme to see if there is a convenient course available. INSET training is an excellent way to get practical advice on the best ways to deliver OCR Nationals.</p>
7	EXPLORE EXTERNAL WEBSITES <p>It's often worthwhile carrying out an internet search to see if there is any free or paid for resource material available. But please always check that whatever material you incorporate into your teaching it meets the qualification's assessment requirements.</p>

Contact us!

Staff at the OCR Customer Contact Centre are available to take your call between 8am and 5.30pm, Monday to Friday. We're always delighted to answer questions and give advice.

t. 02476 851 509

e. ocrnationals@ocr.org.uk

www.ocrnationals.com

Please note, we sometimes record or monitor calls for staff training and quality assurance purposes.

"We value OCR Nationals immensely. They are ideal for teachers, and pupils gain a qualification that demonstrates practical, hands on experience. We couldn't ask for a better qualification."

JB – Westbourne College, Ipswich

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