



Cambridge Assessment
International Education

Cambridge Lower Secondary

Together with



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UNIVERSITY PRESS

Working together for schools

Cambridge Assessment International Education & Cambridge University Press

We are part of the University of Cambridge. Our mission is to contribute to society by enabling teaching and learning at the highest international levels of excellence.

We are at the forefront of education for 5 to 19 year olds around the world. We share your desire to make a transformative impact on learners worldwide and unlock their potential.

We believe that education is most powerful when curriculum, assessment, teaching and learning align. We work together for excellence in these areas, supporting schools to help learners grow academically and thrive as the adults of tomorrow.

Cambridge International

The world's leading provider of international education for **5 to 19 year olds**

A community of over  **10 000 schools** in **160 countries**

Established in **1858**

Cambridge University Press

Over 250 titles to support  the Cambridge Primary and Lower Secondary curricula

Used by schools in **over 126 countries**

Founded in **1534**



Welcome to Cambridge Lower Secondary

Cambridge Lower Secondary is typically for learners aged 11 to 14 years. It helps you prepare students for the next step of their education, helping them to become confident, responsible, reflective, innovative and engaged.

By offering Cambridge Lower Secondary, you can provide a broad and balanced education for your learners, helping them to thrive throughout their schooling, work and life.

With 10 subjects to choose from, including English, Mathematics and Science, our lower secondary programme provides a clear path for the next stage of education, as well as plenty of opportunities to develop creativity, expression and personal wellbeing in a variety of ways.

You can shape the curriculum around how you want your students to learn. Because Cambridge Lower Secondary is flexible, you can adapt the content to suit your context, culture and ethos.

Our lower secondary programme is part of the Cambridge Pathway. The four stages lead seamlessly from primary to secondary and pre-university years. Each stage builds on learners' development from the previous one or from other educational systems:



We work with
over 3500
Cambridge Lower
Secondary schools 
in **140 countries**

Cambridge Pathway  A clear path for educational success from age 5 to 19

Cambridge Primary
Age 5 +

Curriculum and assessment for 10 subjects (including English, Maths and Science)

Cambridge Lower Secondary
Age 11 +

Curriculum and assessment for 10 subjects (including English, Maths and Science)

Cambridge Upper Secondary
Age 14 +

Cambridge IGCSE™ (70+ subjects)
Cambridge O Level (40+ subjects)
Cambridge ICE Certificate

Cambridge Advanced
Age 16 +

Cambridge International AS & A Level (55+ subjects)
Cambridge AICE Diploma
Cambridge IPQ

Cambridge CEM baseline assessments to measure potential and progress

Cambridge Professional Development for teachers and school leaders

Learn • Discover • Achieve

Our approach to lower secondary education

We have built Cambridge Lower Secondary around what matters most to our schools and learners around the world:

▶ A broad curriculum for a balanced education

With a choice of 10 subjects, a wide range of support and optional assessments, you will find plenty to help you deliver core subjects as well as develop creativity, expression and wellbeing.

A range of subjects makes sure that teaching and learning appeals to many different students and prepares them for the future by introducing them to new topics. Teachers can enjoy a stimulating and varied curriculum, which challenges and inspires students to be lifelong learners.

▶ A clear path to progress, step by step

Cambridge Lower Secondary helps you prepare learners for the next step of their education, providing a clear path as they progress through the Cambridge Pathway in an age-appropriate way.

We need to make sure that students are learning the right things at the right time. Each subject at Cambridge Lower Secondary has a curriculum framework with progression grids showing teachers what comes before and after. Teachers can focus on teaching, knowing that the sequencing of learning aligns from stage to stage. Students will be familiar with content and skills from the previous stage and well prepared for the next.

▶ A global learner in a local context

Cambridge Lower Secondary encourages learners to understand their own culture, community and identity within the wider world.

We want to celebrate local culture while helping learners to discuss global issues. Activities in our schemes of work are internationally focused but they can be applied in all local contexts so that learners can develop a broad outlook.

▶ A flexible approach

Cambridge Lower Secondary is flexible, so you can build a programme that adapts to your learners' needs and works with your local context.

Our programme covers three years of learning and can be integrated with local and national curricula. However, if your school has longer or shorter terms/ semesters or school hours, you can combine learning objectives from two or more years to cover more content. Also, our range of assessment options helps you to choose the approach that works best for your school and learners.

▶ An aligned programme based on the latest research

We make sure that the programme, from curriculum to teaching, learning and assessment, is aligned and informed by the latest research.

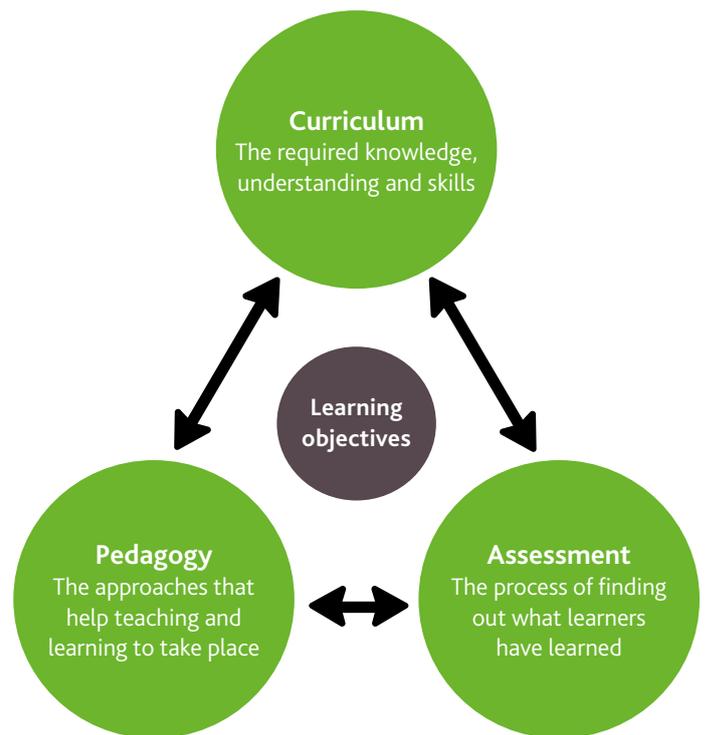
Subject experts and leading specialists develop our curricula using subject-specific research. We critically review every learning objective through the lens of curriculum, teaching, learning and assessment. Aligning these four areas puts learners in the best possible position for the future and leads to a richer learning experience.

An integrated programme

We believe education works best when curriculum, teaching, learning and assessment align. Cambridge Lower Secondary prepares students for the next stage by developing knowledge, understanding and skills across the programme.

We encourage teaching practice that engages the youngest students in their own learning, and we support our programmes with high-quality resources.

Our view is that assessment should both prove and improve students' learning, giving them focus, pace and challenge. We organise our lower secondary assessments in a way that maximises time for teaching and learning.



“Cambridge International is a well-respected and rigorous exam board. We like that we can see progression from Cambridge Primary through to Lower and Upper Secondary using the curriculum and Cambridge Checkpoint tests.”

Chris Terry, Head of Secondary,
Straits International School,
Malaysia

Curriculum

Cambridge Lower Secondary is designed to stretch, challenge and inspire all students, whatever their cultural context.

We give our schools the flexibility to develop a curriculum that suits their students' needs. Many of our schools offer Cambridge Lower Secondary alongside their national curriculum, or as part of a bilingual programme.

There are 10 subjects to choose from. Each comes with a clear set of learning objectives, so you know exactly what content to cover and which skills to develop:

- Art & Design
- Cambridge Global Perspectives™
- NEW Computing
- Digital Literacy
- English
- English as a Second Language
- Mathematics
- Music
- Physical Education
- Science.

We encourage teaching practice that engages students in their own learning, and offer teaching resources and professional development to help you do this.

The curriculum and progression

All Cambridge Lower Secondary subjects include a set of learning objectives that provide a structure for teaching and learning, and a reference for you to check learners' attainment and skills against.

We divide learning objectives into clearly sequenced areas called 'strands' that you can teach separately or together. All 10 subjects and learning objectives ensure a smooth progression throughout Cambridge Lower Secondary and onwards into Cambridge Upper Secondary and beyond.

Choose from
10 subjects
in any combination





Classroom and external assessments

Accurately measuring a student's potential and progress can transform learning and help you make informed decisions about individual students, their educational needs and where to focus your teaching efforts.

Measure potential

Cambridge CEM's computer-based assessments for 11 to 14 year olds help you identify and diagnose learning needs, and measure and benchmark learners' potential. The baseline and diagnostic assessments adapt to each student's level, quickly and accurately identifying their abilities in core academic skills.



Measure

Track learners' aptitude in core skills.



Marking

Computer-based assessment, with results provided automatically.



Frequency

Usually at the beginning or the end of the academic year.



Benefits

- Understand students' potential and what they are learning.
- Helps to predict grades in qualifications such as Cambridge IGCSE, O Level and International AS & A Level.
- Plan your interventions to help students improve on areas of weakness and reach their potential in strength areas.

For more information about Cambridge CEM assessments, go to www.cem.org/readyfortheworld

Provide feedback

We encourage you to assess our creative subjects in the classroom through discussion, observation and lesson outputs as opposed to asking learners to sit a test. We provide assessment guidance to help you give formative feedback on the skills you want learners to develop so that they can reflect on, and improve, their performance. Cambridge resources also provide a range of formative assessment opportunities and full support to implement them.



Measure

Skill development.



Marking

By teachers.



Frequency

Throughout the academic year.



Benefits

- Feedback on 'what went well' with students, and how they can improve further.
- Students can reflect on and improve their performance.

We receive **120 000** 
Cambridge Lower Secondary Checkpoint
entries every year



Monitor progress

Cambridge Lower Secondary Progression Tests help you to assess knowledge, skills and understanding. Use them to check learners' progress at any time of year, as many times as needed, throughout Stages 7, 8 and 9.



Measure

Learners' skills and understanding in English as a First or Second Language, Mathematics and Science.



Marking

Marked by teachers.



Frequency

At any time in the year, as many times as needed.



Benefits

- Get detailed information about learner performance.
- Compare strengths and weaknesses of individuals and groups.
- Use our clear guidance, standards and mark schemes.
- Give structured feedback to learners and parents.

Check achievement

Use Cambridge Checkpoint to monitor individual and group performance at the end of the lower secondary programme. As the tests are internationally benchmarked, you can have extra confidence in the feedback you receive and share with parents.



Measure

Learners' skills and understanding in English as a First or Second Language, Mathematics and Science.



Marking

Marked by Cambridge International.



Frequency

At the end of Cambridge Lower Secondary.



Benefits

- See how your learners are performing against an international benchmark, and in comparison to the rest of their class.
- Easily monitor group and individual performance.
- Learners receive a statement of achievement and a diagnostic feedback report.

“The big difference comes with the level at which Cambridge subjects are assessed, the rigorous assessment methodology and the ease with which educators can continually track student progress.”

Kay Didimalang, Headteacher, Legae English Medium School, Botswana

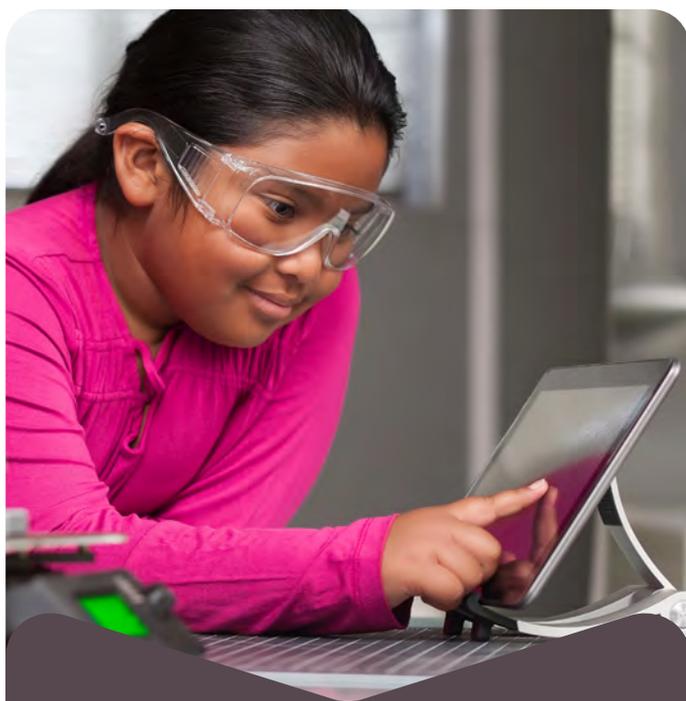
Support

We support Cambridge Lower Secondary with high-quality resources to help you plan and deliver the programme:

- assessment guidance and analysis tools
- curriculum frameworks and progression grids
- endorsed resources from publishers
- past papers, mark schemes and end-of-series reports
- schemes of work
- teacher guides
- training – online and face to face.

Registered Cambridge International Schools can download free teaching resources from the Cambridge Lower Secondary support site:

<https://lowersecondary.cambridgeinternational.org>



“The rich resources and activity-based lessons inspire curiosity and make learning simpler.”

Samuel Ewache, Science Teacher, Start-Rite Schools, Abuja, Nigeria

Endorsed resources

We work with a range of third-party publishers to produce high-quality textbooks and resources to support core subject frameworks.

Subject experts review and evaluate each endorsed title against detailed criteria to make sure that it:

- aligns with the Cambridge Lower Secondary curriculum framework
- has an appropriate focus on knowledge and skills
- is truly international
- promotes effective teaching and learning.

In order to provide choice for Cambridge International Schools, we encourage publishers to develop resources of varying styles and approaches so that teachers can access the best support for their particular classroom.

If a resource is endorsed, you can be confident that all the learning objectives are covered.

How to find endorsed resources

To find endorsed resources for your subject, visit the relevant subject page at www.cambridgeinternational.org/lowersecondary

Choose from
over 130
endorsed resources

Cambridge resources for Cambridge Lower Secondary

Cambridge University Press works with teachers and education experts around the world to create resources that make a difference in the classroom. This approach, along with close collaboration with the team at Cambridge International, makes sure resources cover the whole curriculum framework while developing enthusiastic lifelong learners.



Supporting an active approach

The teaching and learning approaches in Cambridge resources support our aim to develop learners who are ready for the world. Your students will build their critical thinking, collaboration and communication skills as they make, question and investigate.

Children learn in different ways and at different speeds, but with extensive support in student and teacher resources across lower secondary, you can tailor your lessons to individual needs. Furthermore, our training helps you feel confident in using the resources to get the best outcomes for your students.



Reducing the language barrier

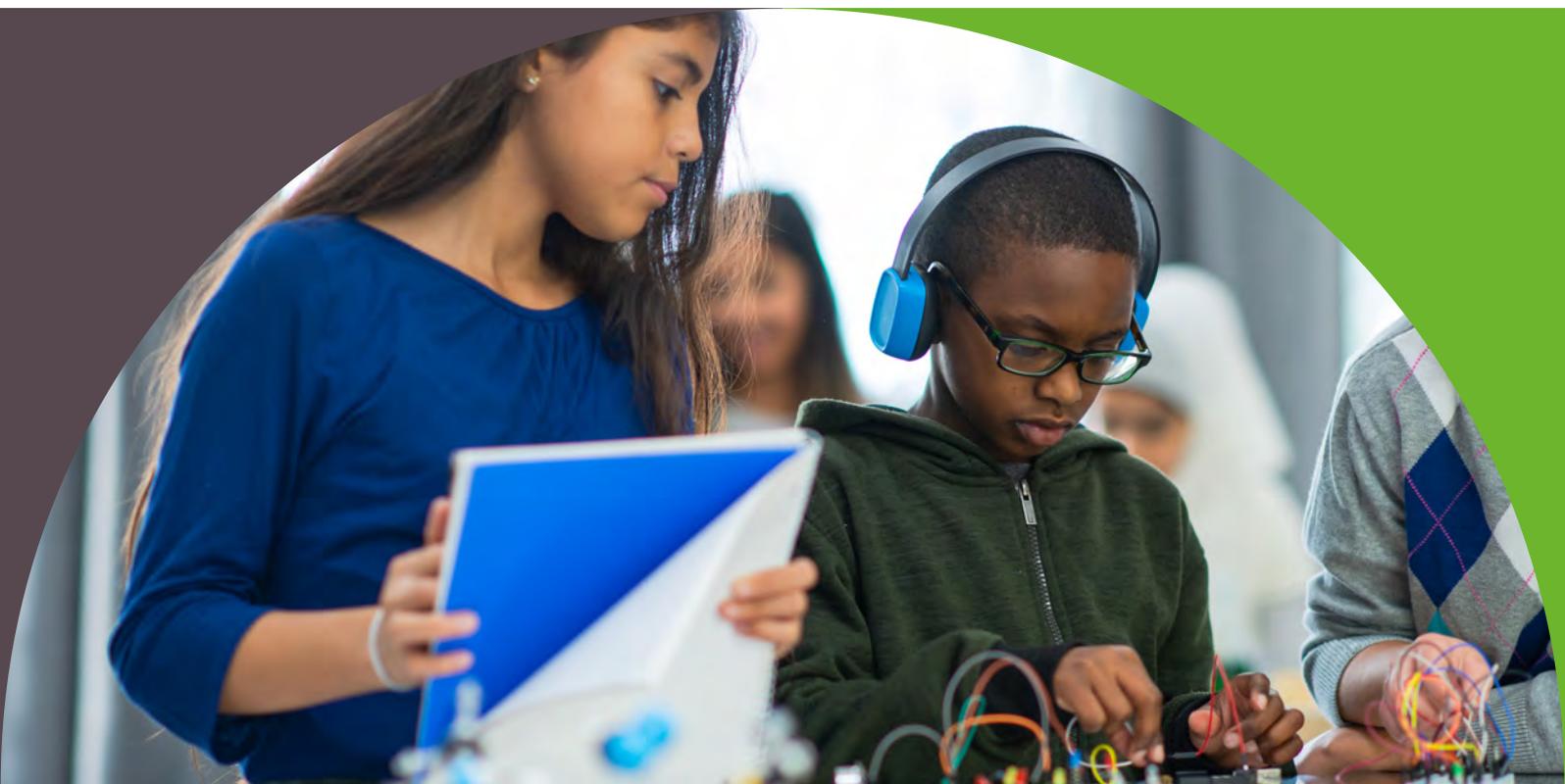
Learning in English broadens students' opportunities, but it can be challenging. Our resources help students understand new concepts and give them the confidence to progress with their English and express themselves. In the lower secondary series, you will find vocabulary boxes and glossaries across all subjects, along with a wide range of authentic fiction and non-fiction to give learners greater experience of the English language.



Tools for learning

Now, more than ever, it is important to give you choice. We provide both print and digital books as well as digital front-of-class support so you can teach in a way that suits your context.

For more information about Cambridge University Press resources, go to www.cambridge.org/education/lower_secondary



Art & Design

Art and design gives learners a platform to express themselves, sparking imagination, creativity and developing transferable skills. Students explore and push boundaries to become reflective, critical and decisive thinkers. They learn how to articulate personal responses to their experiences and to think about how their artistic development will support them throughout all areas of their education.

What will students learn?

Cambridge Lower Secondary Art & Design students:

- learn to see themselves as artists and become increasingly reflective and independent
- develop the skills needed to express creative ideas and to communicate visually
- understand their place and the place of others in a creative, innovative and interconnected world
- make increasingly informed decisions about the art and design they encounter
- develop creative skills that will help with many aspects of their future learning and development.

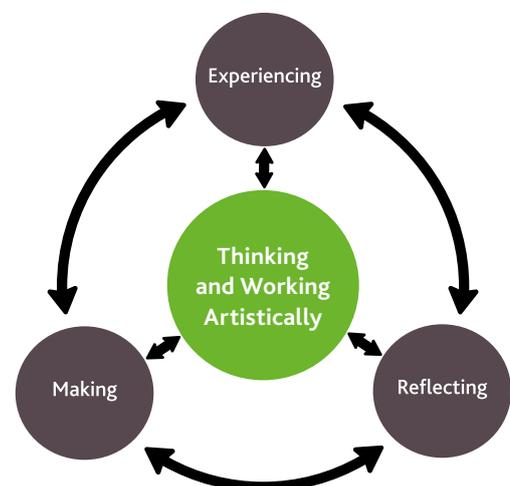
“Cambridge International has helped us to develop students' soft skills, broaden their knowledge and help them understand the value of collaboration.”

Rutdiana Anggodo, Curriculum Coordinator,
Saint Peter's Catholic School, Jakarta, Indonesia



The curriculum and progression

Cambridge Lower Secondary Art & Design provides a structure that mirrors the process followed by artists of all ages and levels of expertise. For this reason, the same learning objectives are used to structure the learning from Cambridge Primary and through each stage of lower secondary. These learning objectives are divided into four main areas, called 'strands', which have also been designed to reflect the interwoven stages of the artistic process.



Progression examples

We have designed this curriculum so that learners are able to continually develop their artistic skills and thought processes. Therefore the same set of learning objectives applies across all stages of the lower secondary curriculum. How learners then progress within those learning objectives is illustrated within example progression guidance, such as that provided in the table to the right.

Strand	Stages 7 and 8	Stage 9
Experiencing	The role of art, craft and design is compared across local and global cultures and across historical periods, including the present.	Learners' selections and explorations are clearly influenced by research into art from different times and cultures.
Making	Tools, technologies and processes are explored, both independently and collaboratively, and peer assessment is used to identify and discuss outcomes throughout the making process.	The selection of materials and processes becomes the learners' own choice and demonstrates innovation.
Reflecting	Contextual links are identified between different artworks.	Learners appreciate how other artists take inspiration from their surroundings, experiences and their peers.
Thinking and Working Artistically	The work of artists and other learners is used both to stimulate creative ideas and to inform problem solving. Learners are increasingly responsible for the selection of the artists they research to inspire their creativity and their experimentation with new technical skills.	Learners access art and design independently, to suit their own interests. They are more aware of the art, and the sources of art, that are available to them and they demonstrate awareness of how art and design affects their own lives and the lives of those around them.

Support for teachers

We provide a wide range of support to help deliver the course, including activities that you can adapt to suit a range of artistic contexts and resources:

Curriculum framework	✓
Teacher guide	✓
Schemes of work	✓
Online training	✓
Assessment guidance	✓
Community online forum	✓

How is the programme taught?

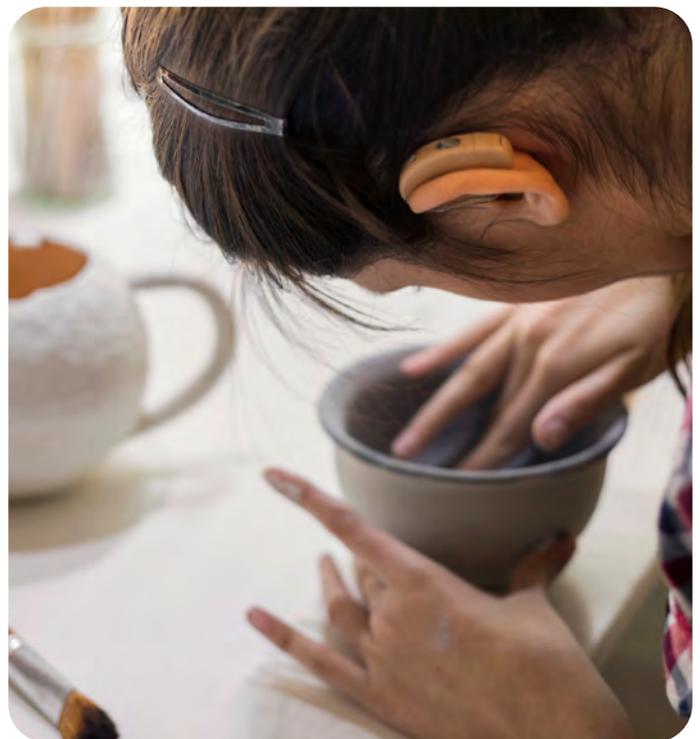
You can teach Cambridge Lower Secondary Art & Design through a broad range of investigative, art-making and reflective activities. These include a number of study areas, for example painting, printmaking, model making or digital art. You can also apply the curriculum content to your local context and to the resources that you have available.

How is Art & Design assessed?



Classroom assessment and guidance

There are no Cambridge Lower Secondary Progression Tests or Checkpoint for this subject.



Cambridge Global Perspectives™

Cambridge Global Perspectives is a unique, transformational programme that helps students at every stage of school education develop outstanding transferable skills. This subject develops the skills of research, analysis, evaluation, reflection, collaboration and communication. It also provides valuable opportunities to reinforce links with other Cambridge Lower Secondary subjects.

The programme taps into the way today's students enjoy learning, including group work, seminars, projects and working with other learners around the world. The emphasis is on developing students' ability to think critically about a range of global issues where there is always more than one point of view.

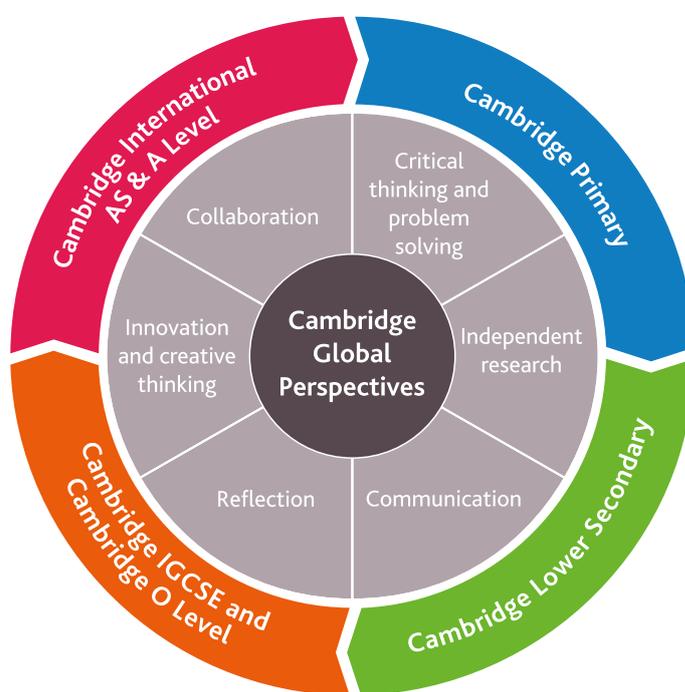
“Cambridge Global Perspectives is engaging, fun and encourages learners to develop the skills that will help them succeed in life. I believe it's something that all students should do in all schools, everywhere.”

Emma-Maria Robertson, Chief Executive and Director, Mayfair Academy, Málaga, Spain

What will students learn?

Students study global topics that are relevant to them – for example, the environment, education and keeping healthy. In doing so, they will:

- develop the skills needed for further education and the workplace
- understand their place in an interconnected world
- make informed decisions about the information they read, hear and see
- understand how causes and consequences are connected
- conduct their own independent research on a global issue.



The curriculum and progression

We have divided the learning objectives into six main areas called 'strands' that run through every stage. Each strand corresponds to one of the skills: Research, Analysis, Evaluation, Reflection, Collaboration and Communication.

We have designed the learning objectives in Cambridge Lower Secondary Global Perspectives to promote progression along the Cambridge Pathway.

Developing perspectives

By the end of the lower secondary phase, learners will be able to identify information from different perspectives in a source. In Stages 7 and 8 learners will analyse perspectives through the ideas and evidence supporting them and will be working with a range of sources. By Stage 9, they will be able to synthesise arguments from different perspectives. This will prepare learners for Cambridge Lower Secondary Checkpoint, where they will analyse different perspectives on an issue in order to answer a research question.



Learning objective examples

Stages 7 and 8

Identify ideas and evidence from different perspectives within different sources, on a given topic.

Stage 9

Identify perspectives and synthesise arguments and evidence from a range of sources on a given topic.

Support for teachers

Curriculum framework	✓
Challenges	✓
Teacher guide	✓
Self-study courses	✓
Online training	✓
Face-to-face training	✓
Community online forum	✓

How is the programme taught?

Teaching and assessment focus on the development of skills. This means that the learning objectives focus on skills that learners will need rather than knowledge and understanding about specific topics.

The skills are taught through a wide range of topics using a personal, local and global perspective. Teachers help students to look at a variety of global issues or topics that give a range of contexts. Cambridge Lower Secondary Global Perspectives introduces students to topics that they will cover for Cambridge Upper Secondary Global Perspectives, which supports their progression to the next phase of learning.

We have built this curriculum around a series of Challenges or medium-term plans. The Challenges for each stage provide:

- a skill focus and the learning objectives related to this skill
- a context in which to develop the skill and success criteria that describe how the skill could be demonstrated
- information about resources and suggested activities.

How is Cambridge Global Perspectives assessed?

Chk Cambridge Lower Secondary Checkpoint*.

*Students produce an individual Research Report that is marked by teachers and moderated by Cambridge International.



New! Computing

Our new Computing curriculum helps learners understand how computers work. This stimulating course gives students the opportunity to look inside a computer to understand the purpose of different components. They will develop coding skills in text-based programming languages, such as Python, and begin to appreciate how computers are used.



Our Computing curriculum is divided into five strands:

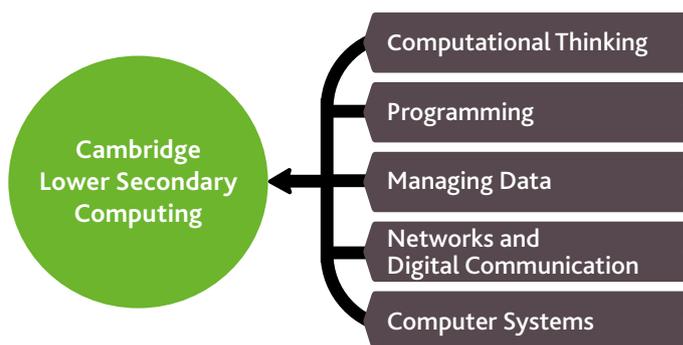
- **Computational Thinking** develops skills such as problem solving using algorithms that are presented as flowcharts and pseudocode.
- **Programming** helps learners to understand the common constructs of programming languages and to appreciate the contribution that computer scientists make to our lives.
- **Managing Data** encourages learners to reflect on how we use computers to store and analyse data on an ever-increasing scale.
- **Networks and Digital Communication** shows how computers and other machines communicate with each other across networks which are created through a combination of hardware and data transmission protocols.
- **Computer Systems** helps learners understand the components within a computer system and how we use them to control a range of other devices. They are also introduced to emerging technologies and the impact technology has at home, and in school and industry.

What will students learn?

Students will learn how to:

- extract key information from a set of instructions, break down problems into smaller parts and learn how to solve them
- present algorithms in an increasingly complex way
- think logically to identify and solve errors in complex computing scenarios
- see themselves as computer scientists and understand how skills such as programming and logical thinking help in local and global industries
- understand the role that computers, other machines and data play in a range of industries.

Schools that are looking to develop learners' skills on how to use computers and stay safe online might consider using our Cambridge Lower Secondary Digital Literacy course (see page 16) in addition to this subject.



Understanding how computers work

will help learners to develop the logical thinking skills that will benefit their whole education

The curriculum and progression

We have designed learning objectives to ensure progression in learning from Stage 7 to Stage 9 and onwards into Cambridge Upper Secondary and beyond. It is particularly relevant if students plan to study Cambridge IGCSE or O Level Computer Science.

The table at the top of the next page shows some examples of how knowledge, understanding and skills progress across the lower secondary stages.

Learning objective examples

Strand	Stage 7	Stage 8	Stage 9
Computational Thinking	Follow, understand, edit and correct algorithms that are presented as flowcharts.	Follow and understand algorithms that are presented as pseudocode.	Follow, understand, edit and correct algorithms that are presented as pseudocode.
Programming	Know how to apply test plans.	Know how to develop and apply test plans.	Know how to develop and apply test plans that include normal, extreme and invalid data.
Managing Data	Know that there are many systems that can be used to model real-life scenarios, such as simulators.	Identify key features of models such as simulators, including their data requirements.	Evaluate the use of models that represent real-life systems.
Networks and Digital Communication	Know the differences between Bluetooth®, wi-fi and cellular networks, including the different generations of cellular networks (4G, 5G).	Describe the advantages and disadvantages of wired and wireless networks, including performance and security aspects.	Explain the scalability factors that should be considered when designing networks.
Computer Systems	Explain the use of automation in at least two industries, such as health, manufacturing or advertising.	Describe how autonomous programming and AI is used in robotics.	Describe the benefits and risks of the computerisation of traditional manufacturing and industrial practices, for example Industry 4.0.

Support for teachers

We provide a wide range of support to help you deliver Computing, including activities that can be extended into longer projects:

Curriculum framework	✓
Teacher guide	✓
Schemes of work	✓
Self-study courses	✓
Online training	✓
Face-to-face training	✓
Assessment guidance	✓
Textbooks and resources from publishers	✓
Community online forum	✓

How is the programme taught?

We have included plenty of opportunities for learners to investigate and create programs using the constructs that they discover. We encourage you to revisit programming activities such as creating interfaces, quizzes and data input and output systems throughout each stage.

Activities that enable learners to create instructions away from the computer, such as those related to decision making, will help them to consider and discuss the key principles of logic and precision. These activities will also introduce them to widely used methods for presenting algorithms, such as flowcharts and pseudocode.

Opportunities to see and interact with real networked hardware and emerging technologies that control other machines will help learners to understand the context of computing systems beyond those that they use in the classroom or at home. This will include the automated systems that are becoming increasingly important to regional and global economies.

How is Computing assessed?



Classroom assessment and guidance

There are no Cambridge Lower Secondary Progression Tests or Cambridge Lower Secondary Checkpoint tests for this subject.

Digital Literacy

The digital world allows us to connect, collaborate and discover new information on an ever-broadening scale. Learners should be able to effectively use technology as part of their educational journey.

What will students learn?

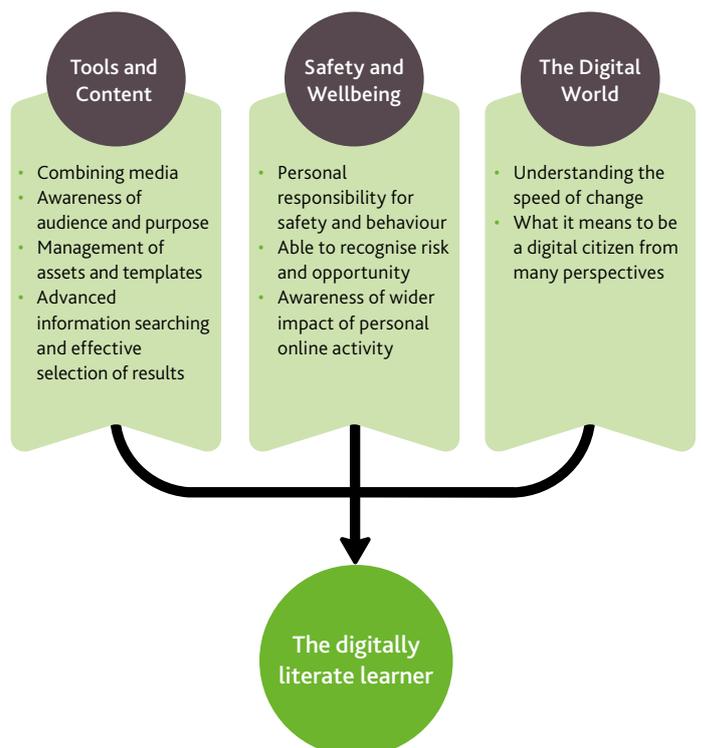
Cambridge Lower Secondary Digital Literacy learners will:

- understand their place, and the place of others, in an interconnected world and make educated decisions about the information that they encounter online
- develop knowledge and understanding that will allow them to respond to, and evaluate technology of the future
- develop skills to create increasingly sophisticated documents and presentations
- learn how to become positive contributors to the digital world
- use digital technology safely and protect their own physical and emotional wellbeing.

Students develop the digital skills that will help with many aspects of their future learning and development. Schools looking to develop learners' understanding of how computers work, including coding skills, might consider using our Cambridge Lower Secondary Computing course (see page 14) in addition to this subject.

The curriculum and progression

Learning objectives provide structure and a reference for you to check students' attainment and skills against. The curriculum is divided into three main areas called 'strands' and you can teach them separately or together. We have designed the learning objectives to ensure progression in learning from Stage 7 to Stage 9 and onwards into Cambridge Upper Secondary. The table at the top of the next page shows some examples of how knowledge, understanding and skills progress across the stages.



Learning objective examples

Strand	Stage 7	Stage 8	Stage 9
Tools and Content Creation	Use Track Changes and comments when editing documents.	Create templates and master documents and understand the benefit of these.	Create a portfolio of documents for a common purpose.
Safety and Wellbeing	Understand that all online activity can be collated and added to a user's digital footprint, which can have positive and negative consequences.	Understand that metadata can be sold as a product.	Explain how search engines provide personalised search results based on metadata, including targeted advertising.
The Digital World	Discuss and make predictions about future technologies.	Describe the benefits and risks of the Internet of Things.	Describe the benefits and risks of Artificial Intelligence.

Support for teachers

Curriculum framework	✓
Teacher guide	✓
Schemes of work	✓
Online training	✓
Assessment guidance	✓
Community online forum	✓



How is the programme taught?

Schools can teach Cambridge Lower Secondary Digital Literacy as a separate subject or embed the content within broader learning. For example, content creation skills can be taught while learners are preparing to present their work in Mathematics or Science, and safety messages can be embedded within cross-curricular sessions about how learners should conduct and protect themselves in the modern world.

We provide a wide range of support to help you deliver Cambridge Lower Secondary Digital Literacy.

How is Digital Literacy assessed?



Classroom assessment and guidance

There are no Cambridge Lower Secondary Progression Tests or Cambridge Lower Secondary Checkpoint tests for this subject.

Cambridge Digital Literacy helps learners to embrace the digital world responsibly



English

Cambridge Lower Secondary English is for learners who have English as a first language. It can be used in any cultural context.

This subject encourages lifelong enthusiasm for reading, writing and spoken communication. It equips learners with transferable language skills for interrogating and producing spoken or written texts, and working collaboratively. It also develops learners' confidence, creativity and intellectual engagement.

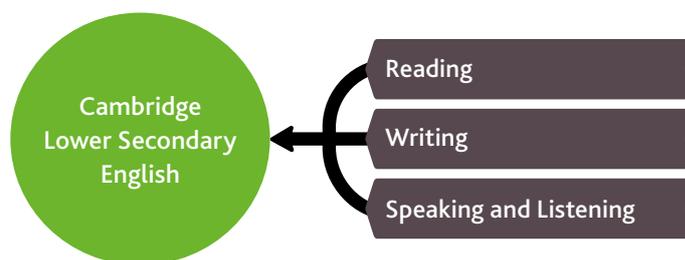
What will students learn?

Learners develop English skills they can apply for a range of different purposes and audiences in everyday situations and in study. They will communicate confidently and effectively, and develop the critical skills to respond to a range of information, media and texts with understanding and enjoyment.

Together, the reading, writing, speaking and listening skills acquired through Cambridge Lower Secondary English support learners' overall intellectual, creative and social development. They will:

- become confident communicators, able to apply their reading, writing, speaking and listening skills effectively in everyday situations and in studying a range of subjects
- see themselves as readers, engaging with a range of texts for information and for pleasure, including texts from different times and cultures
- see themselves as writers, using the written word clearly and creatively for a range of different audiences and purposes
- develop speaking and listening skills for effective presentation and collaboration, sharing and responding to ideas to achieve a shared understanding or goal
- develop a broad vocabulary and an understanding of how to apply grammar and linguistic conventions appropriately
- develop skills to evaluate spoken and written texts, making decisions about how convincingly they represent different values and opinions.

Divided into three stages, the curriculum framework covers knowledge, skills and understanding in the three strands:



The curriculum and progression

We have designed learning objectives to ensure progression in learning from Stage 7 to Stage 9 and onwards into Cambridge Upper Secondary. The table at the top of the next page shows some examples of how knowledge, understanding and skills progress across the stages.



Learning objective examples

Strand	Stage 7	Stage 8	Stage 9
Reading	Comment on the key features of text structure in a range of fiction and non-fiction texts, including poetic forms.	Discuss how a writer uses features of text structure for effect in a range of fiction and non-fiction texts, including poetic forms.	Analyse how the structure of a text can be manipulated for effect in a range of fiction and non-fiction texts, including poetic forms.
Writing	Use a range of planning methods to generate, organise and shape ideas.	Use the most appropriate approach to planning writing in order to generate, organise and shape ideas.	Make an informed choice about whether to plan before writing.
Speaking and Listening	Show insight into texts and issues through choice of speech, gesture and movement, within drama.	Demonstrate empathy and understanding of a range of characters through flexible choice of speech, gesture and movement in a dramatic scene.	Explore complex ideas and issues in drama, establishing roles and applying dramatic approaches with confidence.

Support for teachers

We provide a wide range of support to help deliver Cambridge Lower Secondary English, including activities that you can adapt to suit your context:

Curriculum framework	✓
Teacher guide	✓
Schemes of work	✓
Online training	✓
Face-to-face training	✓
Textbooks and resources from publishers	✓
Cambridge Lower Secondary Progression Tests and analysis tool	✓
Community online forum	✓



How is the programme taught?

You can teach our English curriculum using a broad range of activities that promote experience, reflection and improvement. We recommend a range of fiction genres, poetry, playscripts and non-fiction text types to provide authentic contexts for skills development.

The learning objectives in the three strands of the curriculum framework support an integrated approach to teaching and learning reading, writing, and speaking and listening skills.

We have embedded grammar within the Reading and Writing strands to promote an authentic and meaningful learning experience where learners both explore grammatical concepts through reading and apply them in their own writing.

How is English assessed?

 Cambridge Lower Secondary Progression Tests

 Cambridge Lower Secondary Checkpoint

We do not assess Speaking and Listening with these tests. Support materials, available on our Cambridge Lower Secondary support site, provide guidance on teaching and assessing these skills within the classroom.

English as a Second Language

For learners who speak a language other than English at home.

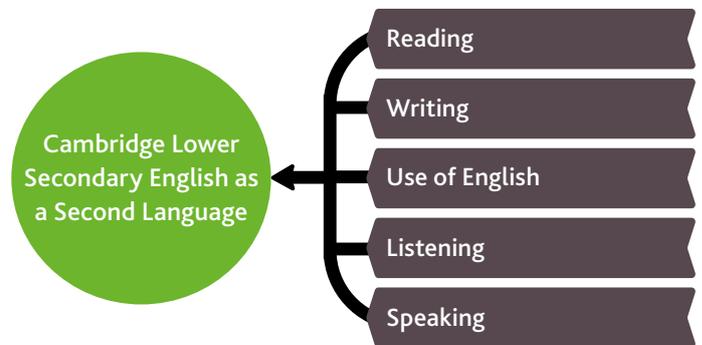
This subject empowers learners to communicate confidently and to develop the critical skills needed to respond to a range of information, media and texts. It promotes active learning, develops thinking skills and encourages intellectual engagement. It develops a solid foundation for further study of English as a Second Language, and for study through the medium of English.

What will students learn?

In Cambridge Lower Secondary English as a Second Language, learners:

- develop a curiosity about other languages and cultures, and how these shape our perceptions of the world
- see themselves as successful language learners
- are able to communicate effectively through the skills of reading, writing, speaking and listening
- become confident in and enjoy reading a range of texts
- develop a solid foundation in the skills required for continued study of English as a Second Language and for study through the medium of English.

Divided into three stages, the curriculum framework covers knowledge, skills and understanding in five strands:

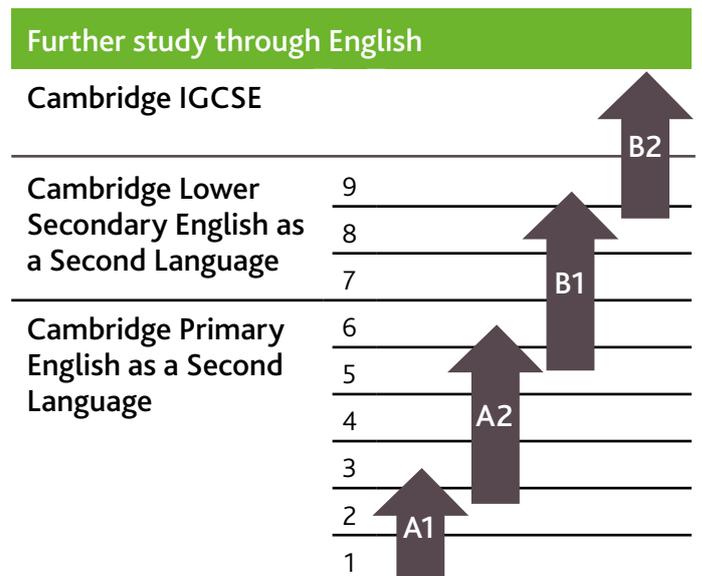


This course supports progression to Cambridge IGCSE and O Level English as a Second Language.

International language standards

We have based the learning objectives on the Council of Europe's Common European Framework of Reference for Languages (CEFR), which is used around the world to map learners' progression in English. The CEFR provides an international standard which is widely recognised for describing language ability. Alignment to the CEFR makes it easy for schools and parents to understand the level of the English as a Second Language programme.

Learner progression in each strand within the curriculum framework is mapped in terms of the common reference levels in the CEFR. The CEFR describes language ability on a six-point scale, from A1 for beginners, up to C2 for those who have mastered a language. See how Cambridge Lower Secondary aligns to the CEFR on the right.



The curriculum and progression

Cambridge Lower Secondary English as a Second Language includes a set of learning objectives that provide a structure for teaching and learning, and a reference for you to check learners' attainment and skills against. The learning objectives ensure progression in learning from Stage 7 to Stage 9 and onwards into Cambridge Upper Secondary. Here are some examples of how knowledge, understanding and skills progress across the stages:



Learning objective examples

Strand	Stage 7	Stage 8	Stage 9
Reading	Deduce meaning from context, with little or no support, in short and extended texts.	Deduce meaning from context and understand some implied meaning, with support, in short and extended texts.	Deduce meaning from context and understand some implied meaning, with little or no support, in short and extended texts.
Writing	Punctuate extended texts with some accuracy when writing independently.	Punctuate extended texts with reasonable accuracy when writing independently.	Punctuate extended texts with reasonable accuracy when writing independently and frequently correct their own errors.
Use of English	Use an increasing range of connectives to explain reasons (e.g. therefore, as) and to give explanations (e.g. so that, such as).	Use a range of connectives to indicate purpose (e.g. so that [in order to]) and to contrast (e.g. although, while, however).	Use a range of connectives.
Listening	Understand, with support, the detail of an argument in short and extended talk.	Understand, with little or no support, the detail of an argument in short and extended talk.	Understand the detail of an argument in short and extended talk.
Speaking	Express, with support, opinions and reactions and begin to develop arguments, supported when necessary by reasons, examples and evidence.	Express, with little or no support, opinions and reactions and justify points of view.	Express opinions, justify their point of view and evaluate the opinions of others.

“The Cambridge Lower Secondary curriculum provides a systematic learning and teaching programme and also helps us to build our own bilingual courses by integrating both the Chinese and Cambridge curricula.”

Daniel Guo, PLS Coordinator, Huanggang Education Group, China

Support for teachers

We provide a wide range of support to help deliver Cambridge Lower Secondary English as a Second Language, including activities that you can adapt to suit your context:

Curriculum framework	✓
Teacher guide	✓
Schemes of work	✓
Online training	✓
Face-to-face training	✓
Textbooks and resources from publishers	✓
Cambridge Lower Secondary Progression Tests and analysis tool	✓
Community online forum	✓

How is the programme taught?

The curriculum supports an integrated approach to planning and teaching to develop effective communication skills in English. The five strands of the curriculum framework, and their respective learning objectives, work together to support the development of knowledge, skills and understanding.

The 'Use of English' strand provides learners with the linguistic features they need to be able to understand and use when engaging with the language receptively (reading and listening) and productively (writing and speaking). Learners will revisit and engage with language at deeper levels and in different contexts.

How is English as a Second Language assessed?



Cambridge Lower Secondary Progression Tests



Cambridge Lower Secondary Checkpoint





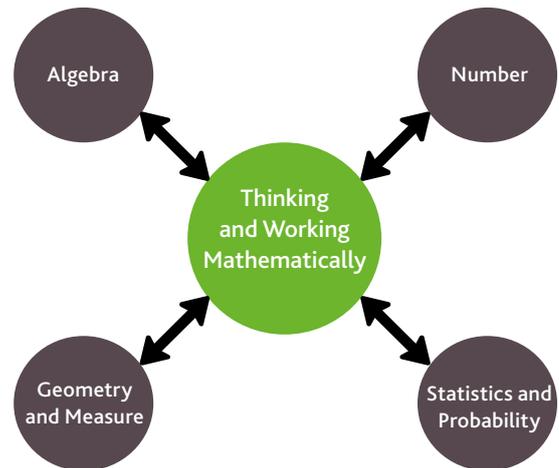
**Working with
schools around
the world for
160 years**

Mathematics

Cambridge Lower Secondary Mathematics encourages lifelong enthusiasm for analytical and rational thinking. Learners develop a holistic understanding of the subject, focusing on principles, patterns, systems, functions and relationships. They will become mathematically competent and fluent in computation that they can apply to everyday situations.

The curriculum and progression

Divided into three stages, this curriculum covers knowledge, skills and understanding in four main areas called 'strands' that can be taught separately or together. We have embedded Thinking and Working Mathematically within and across the curriculum strands:



As with all our lower secondary subjects, we have included a set of learning objectives that provide a structure for teaching and learning Mathematics, and a reference for you to check learners' attainment and skills against. The learning objectives ensure progression in learning from Stages 7 to 9 and onwards into Cambridge Upper Secondary. The table on the next page shows some examples of how knowledge, understanding and skills progress across the stages.

What will students learn?

Students will learn to recognise the interconnections of mathematical concepts and:

- engage in creative mathematical thinking to generate elegant solutions
- improve numerical fluency and knowledge of key mathematical concepts to make sense of numbers, patterns, shapes, measurements and data
- develop mathematical skills, strategies and a way of thinking that will help them to describe the world around them and play an active role in modern society
- communicate solutions and ideas logically in spoken and written language using appropriate mathematical symbols, diagrams and representations
- understand that technology provides a powerful way of communicating Mathematics, one which is particularly important in an increasingly technological and digital world.



Thinking and Working Mathematically is a unique feature of our curriculum.

This process encourages learners to talk with others, challenge ideas and to provide evidence that validates conjectures and solutions.

When learners think and work mathematically, they actively seek to make sense of ideas and build connections between different facts, procedures and concepts. This supports higher order thinking that helps them to view the world in a mathematical way.

Learning objective examples

Strand	Stage 7	Stage 8	Stage 9
Number	Understand the relationship between squares and corresponding square roots, and cubes and corresponding cube roots.	Recognise squares of negative and positive numbers, and corresponding square roots.	Use knowledge of square and cube roots to estimate surds.
Algebra	Understand and describe n th term rules algebraically (in the form $n \pm a$, $a \times n$ where a is a whole number).	Understand and describe n th term rules algebraically (in the form $n \pm a$, $a \times n$, or $an \pm b$, where a and b are positive or negative integers or fractions).	Understand and describe n th term rules algebraically (in the form $an \pm b$, where a and b are positive or negative integers or fractions, and in the form $\frac{n}{a}$, n^2 , n^3 or $n^2 \pm a$, where a is a whole number).
Geometry and Measure	Derive and use a formula for the volume of a cube or cuboid. Use the formula to calculate the volume of compound shapes made from cuboids, in cubic metres (m^3), cubic centimetres (cm^3) and cubic millimetres (mm^3).	Use knowledge of area and volume to derive the formula for the volume of a triangular prism. Use the formula to calculate the volume of triangular prisms.	Use knowledge of area and volume to derive the formula for the volume of prisms and cylinders. Use the formula to calculate the volume of prisms and cylinders.
Statistics and Probability	Understand and explain that probabilities range from 0 to 1, and can be represented as proper fractions, decimals and percentages.	Understand that complementary events are two events that have a total probability of 1.	Understand that the probability of multiple mutually exclusive events can be found by summation and all mutually exclusive events have a total probability of 1.

Support for teachers

We provide a wide range of support to help deliver Cambridge Lower Secondary Mathematics, including activities that you can adapt to suit your context:

Curriculum framework	✓
Teacher guide	✓
Schemes of work	✓
Online training	✓
Face-to-face training	✓
Textbooks and resources from publishers	✓
Cambridge Lower Secondary Progression Tests and analysis tool	✓
Community online forum	✓

How is the programme taught?

Thinking and Working Mathematically supports the concepts and skills in all strands of this curriculum. When learners think and work mathematically, they actively engage with their learning of Mathematics. They try to make sense of ideas and build connections between different facts, procedures and concepts.

Learners who do not think and work mathematically can carry out processes that their teacher has shown them, but they may not understand why the processes work or what the results mean. Noticing inconsistencies, patterns and particular representations encourages learners to think and work mathematically. Practice, reflection and questioning will help them to improve.

How is Mathematics assessed?



Cambridge Lower Secondary Progression Tests



Cambridge Lower Secondary Checkpoint

Music

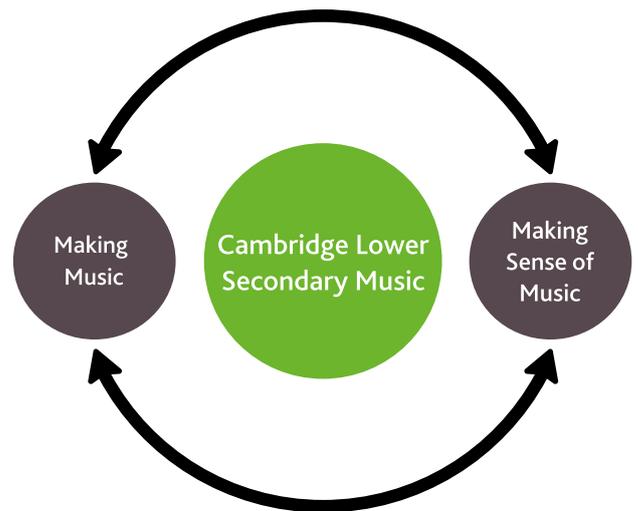
Music fosters creativity and builds confidence. It helps learners to develop a deeper understanding of self-expression and shows them the importance of communication as they learn to connect with other musicians and with audiences. Cambridge Lower Secondary Music broadens learners' experience as they explore music as performers, composers and informed listeners. They will make, understand and appreciate music from different cultures, times and places.

What will students learn?

Cambridge Lower Secondary Music learners:

- cultivate a joy of music through participating in meaningful and enjoyable experiences
- develop the knowledge, skills and attitudes necessary to contribute as musicians
- collaborate with others in purposeful and expressive ways through singing and playing instruments
- nurture their individual and collective creativity
- use their growing knowledge to explore and generate music.

Students develop the creative skills that will help with many aspects of their future learning and development.



The curriculum and progression

The learning objectives provide a structure for teaching and learning, and a reference for you to check learners' attainment and skills against. Learning objectives are divided into two main areas called 'strands' that can be taught separately or together. We have designed the learning objectives to ensure progression in learning from Stage 7 to Stage 9 and onwards into Cambridge Upper Secondary. Here are some examples of how knowledge, understanding and skills progress across the stages:



Learning objective examples

Strand	Stages 7 and 8	Stage 9
Making Music	Contributing to coherent and successful compositions and improvisations, drawing on internalised sounds from a wide variety of sources.	Improvising and composing using a range of musical structures and devices, with growing independence.
Making Sense of Music	Beginning to explore and recognise specific features of particular styles, genres and traditions in music, relating it to context.	Identifying, explaining and demonstrating how specific features of music relate to its context.

Support for teachers

Curriculum framework	✓
Teacher guide	✓
Schemes of work	✓
Online training	✓
Assessment guidance	✓
Community online forum	✓

How is the programme taught?

The Cambridge Lower Secondary Music curriculum is designed to be flexible so learners can perform through singing and playing musical instruments of any kind – as well as found objects and music technology.

We recommend that learners experience music from their own culture as well as exploring music from other times and places. The programme is designed to complement, rather than replace, instrumental or singing lessons.

We provide a wide range of support to help deliver this course, including suggested activities that you can adapt to suit a range of contexts.

How is Music assessed?



Classroom assessment and guidance

There are no Cambridge Lower Secondary Progression Tests or Cambridge Lower Secondary Checkpoint tests for this subject.

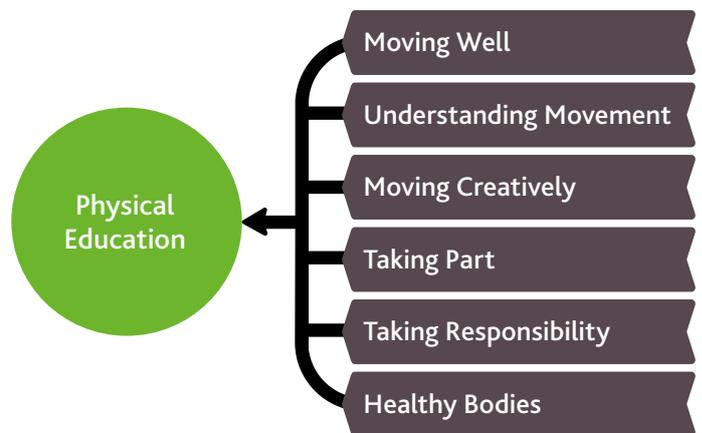
Physical Education

Physical education is a vital part of a balanced school curriculum. Regular exercise improves physical and mental health, and there is growing evidence that it improves academic performance across the curriculum.

What will students learn?

Cambridge Lower Secondary Physical Education is about learning to move and about moving to learn. Learners develop movement skills through a wide variety of age-appropriate physical activities, including games, team sports, gymnastics and dance. They will improve their coordination, flexibility, speed, stamina and strength.

Students also develop important social skills such as taking turns and sharing, as well as their understanding of leadership, collaboration and fair play.



Cambridge Lower Secondary Physical Education learners will:

- participate as individuals and group members in respectful and responsible ways, engaging appropriately and safely
- improve knowledge and understanding of how physical education can contribute to a healthy and active lifestyle
- develop transferable skills promoting physical, cognitive and social development
- become independent, critical and reflective movers and thinkers
- develop their confidence, moving with increasing control, fluency and variety.

Students develop collaborative and leadership skills that will help with many aspects of their future learning and development. The programme builds on what students have learned in Cambridge Lower Secondary Physical Education and supports progression to the next stage of the Cambridge Pathway.



The curriculum and progression

The learning objectives provide a structure for teaching and learning, and a reference for you to check learners' attainment and skills against. Learning objectives are divided into six main areas called 'strands' that can be taught separately or together. We have designed the learning objectives to ensure progression in learning from Stage 7 to Stage 9 and onwards into Cambridge Upper Secondary.

Each learning objective enables development of knowledge, understanding and skills through a spiral approach. For example, the learning objective 'perform, combine and apply a variety of movement skills in complex sequences' is revisited several times in the context of different physical activities. This allows learners to show progression as they develop and apply their skills at deeper levels.

Support for teachers

Curriculum framework	✓
Teacher guide	✓
Schemes of work	✓
Online training	✓
Assessment guidance	✓
Community online forum	✓

“ Physical activity improves personal and mental wellbeing, social inclusion, perceived academic attainment and employability. ”

Source: 2018 British Universities & Colleges Sport Active Students Survey



How is the programme taught?

Cambridge Lower Secondary Physical Education is taught through a broad range of tasks, challenges and physical activities. It includes cooperative, competitive, athletic, adventurous and health-based contexts that are appropriate for each learning stage. Learners will move for as much of each lesson as possible, with activities designed to promote their confidence, self-esteem, cognitive abilities and social skills.

We provide a wide range of support to help deliver Cambridge Lower Secondary Physical Education, including activities that can be adapted to suit a range of contexts.

How is Physical Education assessed?



Classroom assessment and guidance

There are no Cambridge Lower Secondary Progression Tests or Cambridge Lower Secondary Checkpoint tests for this subject.

Science

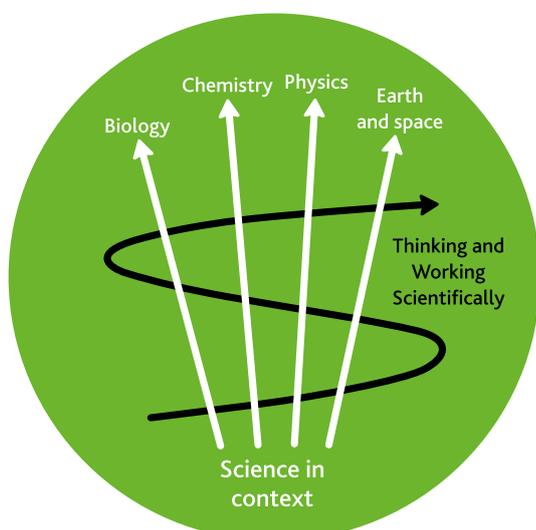
Our lower secondary Science curriculum helps learners develop lifelong curiosity about the natural world and helps them to seek scientific explanations to the phenomena around them.

Students develop a holistic approach to Science by considering scientific thinking and practical skills alongside knowledge and understanding, which is vital for explaining the world around us. This approach provides learners with the knowledge and skills they need to excel at Science in later stages of education. It also helps them to make informed choices, including considering sustainability issues and meeting the challenges facing our environment.

What will students learn?

This curriculum is divided into six main areas called 'strands':

- Biology – living things and their interaction with each other.
- Chemistry – the study of matter.
- Physics – the interaction of matter and energy.
- Earth and space – planet Earth, the wider Solar System and beyond.
- Thinking and Working Scientifically – develops understanding and skills of scientific models and representations, scientific enquiry and practical work.
- Science in context – unique to our Science curriculum, this helps teachers demonstrate the relevance of Science to learners.



The curriculum and progression

Due to the nature of developing Science, some learning objectives are developed over multiple years, for example in Thinking and Working Scientifically, to support mastery of a skill. Other scientific concepts are introduced in one year and then further developed after a gap, for example learning about chemical and physical properties in Stage 7 and further developing it in Stage 9. This gives you time to cover the breadth of scientific content as well as developing learners' depth of understanding over the whole curriculum. The table at the top of the next page shows some examples of how knowledge, understanding and skills progress across the stages.



Support for teachers

We provide a wide range of support to help deliver Cambridge Lower Secondary Science, including activities that you can adapt to suit your context:

Curriculum framework	✓
Teacher guide	✓
Schemes of work	✓
Online training	✓
Face-to-face training	✓
Textbooks and resources from publishers	✓
Cambridge Lower Secondary Progression Tests and analysis tool	✓
Equipment list	✓
Community online forum	✓

Learning objective examples

Strand	Stage 7	Stage 8	Stage 9
Thinking and Working Scientifically	Carry out practical work safely.	Carry out practical work safely, supported by risk assessments where appropriate.	
Biology	Understand that all organisms are made of cells and microorganisms are typically single celled.	(No relevant learning objective in the progression sequence)	Know that chromosomes contain genes, made of DNA, and that genes contribute to the determination of an organism's characteristics.
Chemistry	Use the particle model to describe chemical reactions.	Use word equations to describe reactions.	Use word equations and symbol equations to describe reactions (balancing symbol equations is not required).
Physics	Describe changes in energy that are a result of an event or process.	(No relevant learning objective in the progression sequence)	Know that energy is conserved, meaning it cannot be created or destroyed.
Earth and space	Describe the model of plate tectonics, in which a solid outer layer (made up of the crust and uppermost mantle) moves because of flow lower in the mantle.	(No relevant learning objective in the progression sequence)	Explain the movement of tectonic plates in terms of convection currents.
Science in context	Discuss how the uses of Science can have a global environmental impact.		

How is the programme taught?

The programme is designed to give you maximum flexibility, so you can integrate all of the 'strand' categories into a holistic Science learning experience.

For example, you can teach content from Biology and develop a skill from Thinking and Working Scientifically while using a context, prompted by Science in context, to make sure learning is engaging and relevant to learners. However, you can also teach content learning objectives on their own or set content in a context with no skill development.

Science is an experimental subject and learners should have many opportunities to develop their skills in scientific enquiry. Not only does this help them to experience and understand different areas of Science, but it also helps them to appreciate that scientific understanding changes over time.

How is Science assessed?



Cambridge Lower Secondary Progression Tests



Cambridge Lower Secondary Checkpoint

Improving learners' awareness of Science in the world around them develops their sense that

'Science is for me', helping to connect them to the subject



Training

We offer a wide range of professional development and training for teachers and school leaders. We run face-to-face and online training, so you can choose the format that suits you best.



Guide to Cambridge Lower Secondary

Included in your programme fee, our new *Guide to Cambridge Lower Secondary* is for teachers and school leaders who are new to the programme and provides an overview of the programme.

- Learn how Cambridge Lower Secondary is structured.
- Understand the materials, support resources and assessments available.
- Start teaching Cambridge Lower Secondary with confidence.
- Free to all registered Cambridge International Schools.

Introductory training £

For teachers who are new to Cambridge Lower Secondary.

- Learn about the content and assessment of the programme.
- Discover new resources to support teaching.
- Connect with other Cambridge teachers and share ideas.
- Teach our programmes with greater confidence.

Every year, we run
more than 1000
training
courses 
for 20 000
education professionals

Extension training £

For teachers who have already attended Introductory training, or who have been teaching our programmes for at least two years.

- Develop a deeper understanding of the curriculum aims and assessment objectives.
- Learn about curriculum updates and explore new teaching strategies.
- Understand how to use sample questions, end-of-series reports and mark schemes to prepare your learners for Cambridge Lower Secondary Checkpoint.
- Connect with other Cambridge teachers and share ideas.

Enrichment professional development £

Enrichment training helps teachers and school leaders transform their approach to teaching and learning.

- Learn about key concepts and skills.
- Reflect on your current teaching or leadership practice and discover ways to improve.
- Develop practical strategies to use in your school.
- Meet other Cambridge teachers and share ideas.

Preparing to Teach

For schools using Cambridge resources there are a range of courses to help teachers build confidence and deliver effective teaching using the new series.

For more information visit
[cambridge.org/education/pd](https://www.cambridge.org/education/pd)

Become a Cambridge International School



Step 1: Express your interest

We aim to contact you within two working days of submitting your expression of interest.



Step 2: Complete our application form

We aim to contact you within five working days of submitting your application form.



Step 3: We carry out an approval visit

We will arrange a time that is convenient to you. From time to time we carry out reapproval visits to make sure schools continue to meet our requirements post-registration.



Step 4: You become a Cambridge school

If you are approved to become a Cambridge

school we will send your contract letter within 30 working days of the approval visit.

Start working with us

Welcome to Cambridge International

When you have completed the registration process, we will send you a *Welcome to Cambridge International* pack. This contains all the guidance you need to get started.

Fees

We charge each school an annual registration fee, plus fees for some of our assessments and training courses.

To find out more, speak to your local Cambridge International team.

Talking to parents and students about us

Visit our website to find free marketing materials that you can download and use to explain the Cambridge

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