

## 2. Designing the school curriculum

This chapter provides guidance to those who are responsible for designing the school curriculum using Cambridge programmes and qualifications. The chapter describes the Cambridge pathway, giving an overview of the structure of Cambridge programmes from Primary to Advanced. It discusses the practical implications of introducing a curriculum, including timetabling and adapting to different local requirements for the formal years of schooling. Finally, this chapter shows how Cambridge programmes can be used to support the development of bilingualism.

Flexibility is a key feature of Cambridge programmes. Educational needs are not the same everywhere. Cambridge offers a rich menu from which to select, not a total package which schools have to adopt. Schools can use Cambridge alongside local educational programmes and qualifications to meet their needs and requirements.

### 2.1 The Cambridge Pathway

The Cambridge Pathway is made up of four stages and is characterised as follows:

- Each subject programme builds on the previous stage, providing a coherent curriculum progression. This staged approach helps learners develop knowledge, conceptual understanding, skills and attitudes.
- It is important to distinguish between the written Cambridge programmes, as defined in the documentation and syllabuses, and the taught curriculum in the school, representing the local expression of the programmes. Each subject programme is intended to be adapted to the local context and teachers are able to create a programme of study that includes local content and case studies. This enhances the quality of teaching and learning, and ensures the curriculum reflects national culture and heritage.
- Cambridge's international qualifications are pitched at three levels. The end of upper secondary (IGCSE or O Level) provides an international standard that allows students to access Cambridge AS and A Levels or alternative university preparation courses. In some contexts, students can enter

university foundation programmes directly with IGCSE qualifications. At advanced level, the AS standard represents the entrance standard for universities in many countries, with A Level offering advanced placement or credit. In other countries, A Level is preferred or required for direct university entry.



## 2. Designing the school curriculum

Table 2: An overview of the Cambridge Pathway and Cambridge Programmes

Cambridge programme	Subjects	Assessment
<b>Cambridge Primary</b>		
<p>Typically for 5–11 year olds. The curriculum frameworks provide comprehensive learning objectives. These provide a structure for teaching and learning and a reference against which learners' progress and understanding can be checked.</p> <p>No part of the curriculum is compulsory, so schools can select the elements that are right for their learners.</p> <p>Develops the skills, knowledge and understanding that will prepare learners for a smooth transition to Cambridge Lower Secondary.</p>	<p>A six-stage programme that provides curriculum frameworks and support materials for each of the following subjects:</p> <ul style="list-style-type: none"> <li>• Art &amp; Design</li> <li>• Digital literacy</li> <li>• English</li> <li>• English as a second language</li> <li>• Cambridge Global Perspectives</li> <li>• Computing</li> <li>• Mathematics</li> <li>• Music</li> <li>• Physical education</li> <li>• Science</li> </ul> <p>Each stage reflects the teaching targets for a school year.</p> <p>The curriculum frameworks are divided into content areas called 'strands'. For English, for example, the strands include reading, writing and speaking and listening.</p>	<p>An optional testing structure, with assessments that provide an international benchmark enabling teachers to:</p> <ul style="list-style-type: none"> <li>• identify learner strengths and weaknesses, both for individual learners and class groups, and use the information to help inform teaching</li> <li>• provide learners with a statement of achievement if they choose to do Cambridge Primary Checkpoint at the end of their primary schooling.</li> </ul> <p><b>Cambridge Primary Progression tests</b> From stage 3 to stage 6 of the curriculum in English, English as a second language, mathematics and science. Can be given when the teacher feels the class is ready. Marked by teachers in school.</p> <p><b>Cambridge Primary Checkpoint</b> Cambridge provides diagnostic tests for the end of the Primary programme for English, English as a second language, mathematics and science. Cambridge marks the tests and provides feedback on the strengths and weaknesses of each learner.</p> <p>Cambridge Primary Global Perspectives is assessed through a Team Project. This is marked by teachers and moderated by Cambridge.</p> <p>We provide assessment guidance for art &amp; design, computing, digital literacy, music and physical education.</p>

*Continued*

## 2. Designing the school curriculum

Cambridge programme	Subjects	Assessment
<b>Cambridge Lower Secondary</b>		
<p>Typically for 11 to 14 year-olds. The curriculum frameworks provide comprehensive learning objectives. These build on the foundations of Cambridge Primary and help learners to progress smoothly to Cambridge Upper Secondary.</p> <p>No part of the curriculum is compulsory, so schools can select the elements that are right for their learners.</p>	<p>A three-stage programme that provides curriculum frameworks and support materials for each of the following subjects:</p> <ul style="list-style-type: none"> <li>• Art &amp; Design</li> <li>• Digital literacy</li> <li>• English</li> <li>• English as a second language</li> <li>• Cambridge Global Perspectives</li> <li>• Computing</li> <li>• Mathematics</li> <li>• Music</li> <li>• Physical education</li> <li>• Science</li> </ul> <p>Each stage reflects the teaching targets for a school year.</p> <p>The curriculum frameworks are divided into content areas called 'strands'. For English, for example, the strands include reading, writing and speaking and listening.</p>	<p>An optional testing structure, with assessments that provide an international benchmark enabling teachers to:</p> <ul style="list-style-type: none"> <li>• identify learner strengths and weaknesses, both for individual learners and class groups, and use the information to help inform teaching</li> <li>• provide learners with a statement of achievement if they choose to do Cambridge Lower Secondary Checkpoint at the end of their Lower Secondary schooling.</li> </ul> <p><b>Cambridge Lower Secondary Progression</b> Tests are available for each stage of the curriculum in English, English as a second language, mathematics and science. Can be given when the teacher feels the class is ready. Marked by teachers in school.</p> <p><b>Cambridge Lower Secondary Checkpoint</b> Cambridge provides diagnostic tests for the end of the Lower Secondary programme for English, English as a second language, mathematics and science. Cambridge marks the tests and provides feedback on the strengths and weaknesses of each learner. Cambridge Lower Secondary Global Perspectives is assessed through a Research Report. This is marked by teachers and moderated by Cambridge.</p> <p>We provide assessment guidance for art &amp; design, computing, digital literacy, music and physical education.</p>

*Continued*

## 2. Designing the school curriculum

Cambridge programme	Subjects	Assessment
<b>Cambridge Upper Secondary</b>		
<p>Typically for 14-16 year-olds, the syllabuses for qualifications within this programme describe the knowledge, understanding and skills learners will develop and explain how these will be assessed. Cambridge Upper Secondary provides excellent preparation for the next stage of a Cambridge International education, Cambridge Advanced, as well as other progression routes.</p>	<p>Designed as a two-year programme but can be taken in one year or over three years. Offers over 70 IGCSE courses and over 40 O Level courses.</p> <p>Schools can offer almost any combination of subjects (with a few restrictions known as 'barred combinations').</p> <p>Learners receive a certificated grade for each subject they take.</p>	<p>Cambridge IGCSE assessment takes place at the end of the course. There is a range of types of assessment, including written, oral, coursework and practical assessment.</p> <p>In mathematics, science and English as a second language there is a tiered structure with the option to enter candidates for Core or for Extended tier, [see page 22 on tiering]. Grades are awarded from A*–G (or from 9–1 if available in the administrative zone/subject). The grade set is capped at Grade C (Grade 5 for 9–1 grading) for Core candidates.</p> <p>Cambridge O Level assessment takes place at the end of the course. There is a range of types of assessment, including written, oral, a limited amount of coursework and practical assessment.</p> <p>Grades are awarded from A*–E.</p> <p>Cambridge O Levels are no longer available to schools in administrative zones 1, 2 and 6. There is more information on administrative zones at <a href="http://www.cambridgeinternational.org/help">www.cambridgeinternational.org/help</a></p>

*Continued*

## 2. Designing the school curriculum

Cambridge programme	Subjects	Assessment
<b>Cambridge Advanced</b>		
Typically for 16–19 year olds, Cambridge Advanced builds on the foundations of Cambridge Upper Secondary and leads to entry to universities worldwide. The focus is on helping learners to develop deep understanding and independent learning and critical thinking skills, which universities value highly. The syllabuses for qualifications within this programme describe the knowledge, understanding and skills learners will develop and explain how these will be assessed.	<p>Offers a choice of 50 different subjects and schools can offer almost any combination.</p> <p>A staged approach is available in almost all subjects. An AS Level contains half the content of the corresponding A Level and is normally completed in one year. This allows for flexibility, as learners can complete AS Levels as qualifications in their own right or as the first half of an A Level.</p> <p>The Pre-U programme is available to schools in the United Kingdom. Schools outside the UK need special approval before they can offer Cambridge Pre-U subjects.</p>	<p>Cambridge International AS &amp; A Levels use a range of assessment types, including formal written examinations, orals, practicals and coursework.</p> <p>A level grades range from A* to E. They are directly comparable in standard to A levels awarded in the United Kingdom.</p> <p>Assessment of Pre-U Principal Subjects is at the end of a two-year course. There is a range of nine grades, D1–P3.</p>

There is much more specific information, including details of all the courses available at each stage, in the *Cambridge Prospectus*, available [here](#).

### 2.2 Cambridge Primary

Designed for 5–11 year olds, Cambridge Primary is structured through curriculum frameworks in 10 subjects including English, English as a second language, mathematics, science and Cambridge Global Perspectives. Each framework is divided into six stages, normally taught over one year each, but they can be covered over shorter or longer time periods depending on the school's circumstances. No subject in the Cambridge Primary programme is compulsory, so schools can select the elements that are right for their learners. Cambridge provides a wide range of support for teachers to help them deliver each curriculum in their context.

The curriculum frameworks are structured by the key 'strands' of learning in each subject. The learning objectives in each strand then clearly show the

teaching targets for each stage. Cambridge regularly and systematically reviews each curriculum framework to make sure that primary learners develop a solid foundation in each subject and are well prepared to progress to Cambridge Lower Secondary.

Cambridge Primary English is intended for first language learners who have well-developed oral language skills before they begin school. Therefore, learners are expected to produce language orally and in writing from the earliest stages. This curriculum provides a foundation in language and literacy on which later stages of education can be built. With its emphasis and early focus on literary analysis and critical reading skills, it promotes an understanding of how different language features are used and the impact these have on the reader. It fosters literary appreciation and prepares learners to become skilled users of the language in many contexts.

Primary English as a second language is designed to prepare learners to become skilled users of English as a second language for practical purposes, including

## 2. Designing the school curriculum

using English for functional communication and learning other curriculum subjects. It is designed for speakers of other first languages who are learning English as a second (or additional) language. It has been developed in conjunction with Cambridge Assessment English and is based on the Council of Europe's Common European Framework of Reference for Languages (CEFR), used across the world to map learners' progress in English (see page 28). The curriculum can be used to support the implementation of bilingual and multilingual education programmes, where subjects are taught through two or more languages.

The mathematics curriculum framework explores principles, patterns, systems, functions and relationships, so that learners can apply their mathematical knowledge and develop a holistic understanding of the subject. It is structured in three content areas: Number, Geometry and Measure, Statistics and Probability. Thinking and Working Mathematically underpins all of the other areas of learning to assist learners in considering the processes involved when solving problems.

Our Computing curriculum introduces learners to block-based programming and how to write clear instructions that computers can use. This helps them to understand how software drives what happens inside each piece of computer hardware.

Computing has five content areas: Computational thinking, Programming, Managing Data, Networks and Digital Communication, and Computer Systems.

The science curriculum framework has six strands: A skills strand Thinking and Working Scientifically, Four content strands - Biology, Chemistry, Physics and, Earth and Space, A context strand - Science in Context. In every part of the programme learners think and work scientifically and do hands-on science using everyday equipment. This helps learners to develop an understanding of scientific investigations including considering ideas, evaluating evidence, planning, investigating, recording and analysing data. The content in the Biology, Chemistry, Physics and, Earth and Space strands introduce learners to the main areas of science, while the Science in Context strand also places these in a broader cultural and historical context.

Cambridge Primary Global Perspectives develops the skills of research, analysis, evaluation, reflection, collaboration and communication. The skills are taught



through a wide range of topics using personal, local and global perspectives. It strengthens the links across the other subjects in the primary programme and provides an interdisciplinary approach to learning. Flexible delivery options are a key characteristic of the programme and it can be taught as a weekly lesson, integrated into other subjects or through occasional full days of activities.

Find out more about how the Cambridge Global Perspectives primary programme is taught and assessed.

The art, digital literacy, music and physical education curricula have unique features. The art curriculum has learning objectives that describe the concepts and approaches that apply to artists of all ages and levels of expertise. For this reason, the same learning objectives are used to structure learning from Stage 1 to Stage 6. The digital literacy curriculum covers digital skills that students need today but they will also acquire knowledge and understanding about safety and wellbeing online that will equip them for the future. The music curriculum emphasises musical exploration with opportunities for learners to perform and present their music at every stage of development. The focus is on play and on

## 2. Designing the school curriculum

responding to music which leads to an increasing awareness of self and personal musicality. The physical education curriculum is a vital part of a balanced Cambridge school curriculum. Regular exercise improves both physical and mental health and there is growing evidence that it improves academic performance across the curriculum. Establishing good patterns of exercise in primary schools also provides learners with the foundation of an active and healthy lifestyle for life.

### Cambridge Primary testing:

Cambridge Primary includes two voluntary testing options: Progression Tests and Primary Checkpoint. These are used by schools globally to monitor their learners' progress and attainment against an international benchmark.

Cambridge Primary Progression Tests can be used whenever a class is ready to be assessed on their learning from a stage of the curriculum framework. Once teachers have marked the tests, they can use the unique analysis tools provided by Cambridge to produce detailed reports from the results. These highlight the strengths and weaknesses of learners so teachers can make targeted improvements to teaching and learning. Learners' results can be compared against their class, school or other schools around the world, and on a year-by-year basis.

Primary Checkpoint is for learners at the end of the final year of Cambridge Primary. It provides evidence of readiness for the next stage of education, assessing skills, knowledge and understanding. English, English as a second language, mathematics and science are all assessed through written tests provided and marked by Cambridge. Cambridge Primary Global Perspectives is assessed through a Team Project which is marked by teachers and moderated by Cambridge.

For more information see [here](#).

### 2.3 Cambridge Lower Secondary

Designed for 11–14 year olds, Cambridge Lower Secondary builds on the learning from Cambridge Primary and prepares learners for Cambridge Upper Secondary study. As with the primary programme, no part is compulsory and schools can select which elements will be most useful for their learners. There are three

stages in the curriculum framework for each subject. These are commonly taught over one year for each stage, but they can be taught over shorter or longer time periods, depending on the school's circumstances.

Cambridge regularly and systematically reviews each curriculum framework to make sure that lower secondary learners build on their learning in primary and are effectively prepared for Cambridge Upper Secondary qualifications.

Cambridge Lower Secondary English is intended for first language learners, or those with an equivalent competence in English. Learners build on their understanding and use of language features and become more sophisticated in using language effectively in a range of oral and written contexts. They also continue to develop their literary analysis and critical reading skills. This programme provides learners with the language and literacy skills they need for further study and life. In addition it prepares them for Cambridge Upper Secondary qualifications in English literature, language and drama.

Cambridge Lower Secondary English as a Second Language continues seamlessly from the primary curriculum, developing independent users of English (B1 and B2 on the CEFR see page 28). This programme provides learners with the English language skills they need to access Cambridge Upper Secondary qualifications through English. In addition, learners can continue their studies to Cambridge IGCSE English as a second language.

The mathematics curriculum continues to emphasise Thinking and Working Mathematically. Algebra is formally introduced, building on concepts from the Number strand in the Primary programme, alongside Number, Geometry and Measure and Statistics and Probability. This programme leads to upper secondary qualifications in mathematics. It also provides learners with the numeracy and statistical literacy needed for life as well as further study in a wide range of subjects (such as sciences and social sciences).

Our computing curriculum furthers learners knowledge of programming languages by introducing text-based software. Learners will explore algorithms using flowcharts and pseudocode, spreadsheets and databases, data transfer across networks and new technologies such as Artificial Intelligence.

## 2. Designing the school curriculum

The science curriculum framework builds further understanding of Biology, Chemistry, Physics, Earth and Space and, Thinking and Working Scientifically. All of the science disciplines are taught in each stage so that learners develop an integrated view of science. The emphasis on scientific investigations continues from primary with learners being introduced to specialist scientific equipment, where available. This programme prepares learners for all of the scientific qualifications available at upper secondary level.

Cambridge Lower Secondary Global Perspectives continues to use a range of topics to develop the skills of research, analysis, evaluation, reflection, collaboration and communication. Learners identify a wider range of personal, local and global perspectives and begin to evaluate why these may be different. As with the primary programme, it is designed to be delivered flexibly through specific lessons, existing subjects or full days of activities. The skills developed prepare learners for all upper secondary subjects and they can continue to study Cambridge Global Perspectives at Upper Secondary. For more information, see [here](#).

The art, digital literacy, music and physical education have a smooth transition from the Primary programme. The art curriculum continues to include the same learning objectives as primary cross Stages 7 to 9. The digital literacy curriculum emphasises that staying safe is an important aspect of all digital activity. Learners develop online skills that enable them to protect themselves and their devices, and to demonstrate concern and respect for others. The music curriculum allows learners to experiment with a wide variety of possible musical paths. This will help each learner to develop a personal affinity to music as well as find ways to express their unique musical personality. The physical education curriculum develops a wide variety of age-appropriate physical activities, including games, team sports, gymnastics and dance. Through these activities learners develop a foundation of an active and healthy lifestyle for life.

### Cambridge Lower secondary testing:

Cambridge Progression Tests and Cambridge Lower Secondary Checkpoint allow schools using Cambridge Lower Secondary to monitor their learners' progress and attainment against an international benchmark.

Cambridge Lower Secondary Progression Tests are available as paper or onscreen tests which can be taken when a class has completed a stage of the curriculum framework. Once the tests are marked (by teachers, with some auto-marking for the onscreen version) the unique analysis tools provided by Cambridge will use the results to provide detailed reports. These highlight the strengths and weaknesses of learners so teachers can make targeted improvements to teaching and learning. Learners' results can be compared against their class, school or other schools around the world, and on a year-by-year basis.

Lower Secondary Checkpoint is for learners who have completed the Cambridge Lower Secondary curricula. It provides evidence of readiness for the next stage of education, assessing skills, knowledge and understanding. English, English as a second language, mathematics and science are all assessed through written tests provided and marked by Cambridge. Cambridge Lower Secondary Global Perspectives is assessed through an individual Research Report which is marked by teachers and moderated by Cambridge. For more information see [here](#).

## 2.4 Cambridge Upper Secondary

The Cambridge Upper Secondary programme has an extensive range of subjects available at Cambridge IGCSE or Cambridge O Level. This diverse range allows teachers to design either a broad and balanced curriculum, or a more specialised one, depending on their educational aims. Some schools opt for a specialised programme with a number of compulsory subjects (including English language, mathematics and science) and only a few, if any, learner electives. Others give learners more choice. It is recommended that learners are offered some choice, to allow them to follow their interests and talents, but there may be higher costs for staff, and perhaps specialist rooms and equipment, as more subjects are offered.

### What is a Cambridge IGCSE?

IGCSE stands for International General Certificate of Secondary Education. Over 70 subjects are available. Schools can offer almost any combination of subjects and each subject is certificated separately.

- A Cambridge IGCSE is the formal recognition of a learner's achievement at the end of a particular subject course. The content of the course is based on



## 2. Designing the school curriculum

an international curriculum developed for 14–16 year olds (although it can be studied by younger or older learners).

- The content of each course is created to suit a wide variety of schools and to avoid cultural bias. It helps to develop creative thinking, enquiry and problem-solving skills and supports the development of the Cambridge learner attributes.
- Each qualification is made up of a number of assessments (called components), the majority of which take place at the end of the course. The methods of assessment include written papers, orals, coursework and practicals.
- Learners have to pass a particular combination of these assessments to achieve the qualification. Some syllabuses offer learners and teachers different assessment options through which to achieve the qualification. This broadens opportunities for students to demonstrate their learning, particularly when their first language is not English.
- In the UK, Cambridge IGCSE is accepted as an equivalent to the GCSE.
- The Cambridge IGCSE grades awarded are A\*–G, with A\* being the highest. They are designed to cover a wide ability range. Cambridge IGCSE is also available graded 9–1 in certain subjects and administrative zones – grade 7 is aligned to grade A and grade 4 is aligned to grade C.

The main differences between Cambridge IGCSE and qualifications offered by other providers as well as UK GCSEs, are in the syllabus content and methods of assessment:

- Several Cambridge IGCSE subjects have an optional coursework element, whereas with most GCSE and equivalent qualifications offered by other providers, coursework is not an option and where there is coursework, it is compulsory.
- The content of Cambridge IGCSE subjects is tailored to the multicultural, multilingual audience they serve, in a way the GCSE content or the content of IGCSEs offered by other providers is not.

- All UK GCSEs from 2019 will be graded 9-1, where IGCSEs are offered as A\*-G. For some zones and subjects, IGCSEs are also available graded 9-1.
- Cambridge provides time-zone variation of papers for its IGCSEs. This ensures that students who sit examinations before others cannot compromise the security of the examinations while examinations are timetabled at sensible local times.

### What is a Cambridge O Level?

O Level stands for Ordinary Level, and is an internationally recognised qualification equivalent to the UK General Certificate of Secondary Education (GCSE) and Cambridge IGCSE. Over 40 subjects are available to schools, except those in administrative zones 1, 2 and 6.

- A Cambridge O Level is the formal recognition of a learner's achievement at the end of a particular subject course. The content of the course is based on an international curriculum developed for 14–16 year olds (although it can be studied by younger or older learners).
- The qualifications were developed from the academically focused O Level introduced in the UK in the 1950s and replaced in 1988 in the UK by the GCSE.
- The content of each Cambridge O Level syllabus is designed especially for an international market, and is sensitive to the needs of different countries. In many instances, IGCSEs and O Levels share the same content, have common assessments and share common assessment standards.
- Each qualification is made up of a number of assessments (called components), the majority of which take place at the end of the course. The methods of assessment include written papers, orals and practicals, and for some subjects, coursework.
- Learners have to pass a particular combination of these assessments to achieve the qualification. Some of the syllabuses offer learners and teachers different assessment options to achieve the qualification. This broadens opportunities for students to demonstrate their learning, particularly when their first language is not English.

## 2. Designing the school curriculum

- In the UK, Cambridge O Level is accepted as an equivalent to the GCSE.
- Cambridge O Level assessment standards are aligned to those of the Cambridge IGCSE, and are equivalent on a subject-for-subject, grade-for-grade basis. The grades awarded are A\* to E, with A\* being the highest.

The main difference between Cambridge O Level and GCSE and Cambridge IGCSE is the grade range: O Levels are graded on an A\*–E scale, whereas Cambridge IGCSEs are on an A\*–G scale (and 9–1 grade scale for certain subjects and administrative zones). O Levels, therefore, do not provide as many grades recording student performance at lower levels of attainment. The grades are consistent so an A\* or C grade in either represents the same level of performance and both IGCSE and O Level provide an excellent preparation for students going onto Cambridge Advanced.

Syllabus content and assessments are often shared for Cambridge O Level and Cambridge IGCSE, although in several subjects the assessment model at Cambridge IGCSE additionally includes coursework options.

### Science specifics

In Cambridge Lower Secondary, the curriculum is called 'science' but in Cambridge Upper Secondary there are important choices to make. Schools may choose to offer biology, chemistry and physics as separate subjects. In this case, learners can take all three or specialise in one or two of them. These 'separate sciences' have the greatest amount of content and offer the very best preparation for Cambridge Advanced science. Separate sciences are available at both Cambridge IGCSE and Cambridge O Level and are extremely popular with schools. At IGCSE level, Co-ordinated Science is also offered. This has two-thirds of the content of each of the separate sciences and is known as a double award, meaning that it is worth two IGCSEs. This still offers good preparation for Cambridge Advanced science and many learners will progress to taking one or more sciences after IGCSE through this route. Some schools offer Co-ordinated Science as the only science option. At both IGCSE and O Level, Combined Science is also offered. This has one third of the content of each of the separate sciences. It is a good choice for learners who need to complete their general science education at this level but do not plan to take sciences further.

“ Schools know their own students best. Streaming them into either the core pathway or the core and extended pathway will clearly impact their future options. ”

### 'Core' and 'supplement' tiering

Cambridge IGCSE science subjects, mathematics and English as a second language offer two curriculum options. These are referred to as 'core' and 'extended' or 'supplement' curriculum options. Everyone entering for the subject has to complete the core curriculum, but the extended curriculum can be studied in addition. Students who complete core and extended will be assessed on the full A\* - G scale. Students who complete the core can attain grades in the range of C to G.

The extended curriculum provides an opportunity to study the subject in more depth and experience wider coverage of the content. The use of tiering means that questions are set at appropriate levels of demand for the ability range of students taking the tier. Strong candidates can access more demanding material that will prepare them better for studying the discipline at a higher level, including AS or A Level. The extended material, however, can prove to be too cognitively demanding for weaker students while the core is designed to provide a well-rounded education accessible by all. Use of tiering supports a positive assessment experience for all students, to allow everyone to demonstrate what they know, understand and can do.

A school may decide that all learners will study the extended as well as the core, and schools are encouraged to ensure all students are appropriately challenged. Schools know their own students best. Streaming them into either the core pathway or the core and extended pathway will clearly impact their future options. Some students may be struggling because of gaps in their previous teaching, so providing extra support may make it possible for them to access the extended material. The option to enter some candidates for the core examination papers remains until the entry deadline so the decision does not have to be made when the course is first taught.

## 2. Designing the school curriculum

### Alternative course options in IGCSE

Apart from English language, there are several other Cambridge Upper Secondary subjects that have alternative courses (detailed at the end of this guide in the appendices). This flexibility helps teachers identify and select specific courses to meet their teaching requirements.

Some alternative subject courses have particular restrictions ('barred combinations') when it comes to the exams. For example, learners cannot take Cambridge IGCSE Mathematics and Cambridge IGCSE International Mathematics in the same exam series. These restrictions do not mean it is not possible to offer both courses; only that learners cannot undertake the exams or associated assessments of the barred combinations in the same exam series.



### Length of study and number of courses

Learners usually study Cambridge IGCSE and Cambridge O Level over one or two years and a few schools offer IGCSE over three years (see section 2.8 on fitting the Cambridge pathway to years of schooling). In many schools, learners study eight or nine subjects, and occasionally more, over a period of two years. In others, learners study a reduced number of subjects, typically about five or six, over one year. Reducing the Cambridge Upper Secondary programme to a one-year period has a direct influence on the balance of the curriculum, as the curriculum will be narrower for any individual learner studying fewer subjects. Some schools allow very able learners to study for exams in selected subjects a year early.

## 2.5 Cambridge Advanced

By the time learners begin studying the Cambridge Advanced programme, they often want to specialise more, depending on their current interests, ambitions for higher learning and potential career paths. However, it is still possible to study a wide range of different subjects at this level, creating a broad programme of study, and the co-curricular programme can add breadth and balance to the educational experience.

'Planning a Cambridge International AS & A Level Programme' below sets out some different approaches and gives detailed guidance on how teachers can use the programme flexibly to suit their needs. However, in most Cambridge schools it is typical for learners to study three or four subjects. Working at a more advanced level they will need more curriculum time in class for each subject as well as more independent study time. Teachers may decide to include this independent study time on the learner's timetable but it should not normally need teacher time.

### What are Cambridge International AS & A Level?

A Level stands for Advanced Level and AS Level stands for Advanced Subsidiary Level. An AS Level contains half the content of the corresponding A Level and is normally completed in one year. This allows for flexibility, as learners can complete AS Levels as qualifications in their own right or as the first half of an A Level, for which they are allowed to carry forward their AS result. Some learners

## 2. Designing the school curriculum

take all the assessments for their full A Level at the end of the second year (see the 'Planning a Cambridge International AS & A Level programme' below).

Cambridge International AS & A Level are the names of the qualifications that formally recognise a learner's achievement at the end of a particular subject course. The content of the course is more in-depth and demanding than Cambridge IGCSE or O Level. It is based on an international curriculum developed for 16–19 year olds preparing for higher education.

The assessment standards of Cambridge International A Levels are aligned to those of UK A Levels and are equivalent on a subject-for-subject, grade-for-grade basis. The grades awarded are A\* to E, with A\* being the highest. There is no A\* grading in the certification of Cambridge International AS Levels. Cambridge International A & AS Levels are viewed as equivalent to AS & A Level qualifications taken by learners in the UK.

The main differences between Cambridge International AS & A Level qualifications and the UK AS & A Level qualifications are in the syllabus content and mode of assessment:

- Cambridge offers a staged approach no longer available in the UK. For most subjects, the Cambridge AS Level can either be taken as an end-point qualification in its own right, normally after one year of study, or AS Level components can contribute directly to the A Level in a linear examination normally taken at the end of two years along with the other A Level components. Candidates can also build on their AS Level results to count into their A Level result. Cambridge has preserved the staged approach because of the flexibility it provides. In most parts of the world, the AS Level standard represents the level required for direct university entry. Many universities also like to use AS Level results as evidence of student attainment in their admissions process.
- The context or examples used in Cambridge AS and A Level syllabuses and assessments are designed to be culturally sensitive and to provide an international context.

- There is a wider range of subjects available at Cambridge International AS and A Level, for example the wide range of languages offered.
- Cambridge provides time-zone variation of papers for AS and A Level. This ensures that students who sit examinations before others cannot compromise the security of the examinations while examinations are timetabled at sensible local times.

### Planning a Cambridge International AS & A Level programme

There are three different approaches for planning and scheduling Cambridge International A Level (see table 3 on next page). Each approach will have a different effect on the structure of the school curriculum and the school timetable.

Before schools decide on which of the three approaches they might allow, it is important for them to check the requirements of universities and other higher education institutions where their learners are likely to want to go. Universities in some countries require three full A Levels for their most popular courses – Approaches 1 or 2 could work for these. Approach 3, AS only, has the potential to provide the broadest and most balanced curriculum but the compromise is less specialisation. This may however be ideal in countries where AS Levels are accepted on their own.

## 2. Designing the school curriculum

Table 3: Cambridge International AS and A Level options

Approach 1	Approach 2	Approach 3
A 'non-staged' assessment route. Learners take all papers of the Cambridge International A Level course in the same examination series, usually at the end of the second year of study.	A 'staged' assessment route. Learners take the Cambridge International AS Level in Year 1 and/or Year 2 and complete the final Cambridge International A Level in the second series.	Cambridge International AS Level only. Learners take the Cambridge International AS Level exams only. The syllabus content for Cambridge International AS Level is half of a Cambridge International A Level programme.
A learner who successfully completes the non-stage option will normally have studied three or four Cambridge International A Level courses.	A learner who successfully completes the staged assessment option might have outcomes that include: <ul style="list-style-type: none"> <li>• three Cambridge international A Levels and one AS Level (first example below)</li> <li>• two Cambridge International A Levels and Four AS Levels (second example below)</li> <li>• three Cambridge International A Levels and two AS Levels (third example below).</li> </ul>	A learner who successfully completes the Cambridge International AS Level only assessment option might have studied eight Cambridge International AS Level courses, completing four in each year. This could represent a broad and balanced curriculum but with less specialisation and depth.

In the first example below, the learner has selected a programme that will result in three Cambridge International A Levels in History, Geography and French and one AS Level in Global Perspectives & Research.

Curriculum level	Subjects selected for study			
First year	AS Level Global Perspectives	AS Level History	AS Level Geography	AS Level French
Second year		A Level History	A Level Geography	A Level French

In the second example on the next page the learner has selected a programme that will result in two Cambridge International A Levels in Mathematics and Economics. They have broadened their programme by selecting an additional

two AS Level subjects in the final year. Together with their first year AS Level subjects, they will achieve four Cambridge International AS Level qualifications: English Literature, Biology, Art and Design and Global Perspectives & Research.

## 2. Designing the school curriculum

Curriculum level	Subjects selected for study			
First year	AS Level Literature - English	AS Level Mathematics	AS Level Biology	AS Level Economics
Second year	AS Level Art & Design	A Level Mathematics	AS Level Global Perspectives	A Level Economics

In the third example below, the learner has selected a more specialised programme, resulting in three Cambridge International A Levels supported by two Cambridge International AS Level awards. In this case, Cambridge International AS Level Business reinforces the mathematics–economics

combination, with a possible career in the financial world in mind. On the other hand, this could be criticised as being over-specialised, and it might be preferable for the learner to select a different sort of discipline, for example art or Global Perspectives.

Curriculum level	Subjects selected for study			
First year	AS Level Literature - English	AS Level Mathematics	AS Level Biology	AS Level Economics
Second year	A Level Literature – English	A Level Mathematics	AS Level Business	A Level Economics

Learners need guidance to ensure their intended course of study provides the learning and qualifications they need, either for admission into higher level studies or for pursuing a particular career. As mentioned, it is very important to consider admission requirements for both national and international universities and other higher learning institutions, when constructing curriculum and qualification pathways and guiding learners on subjects to choose.

### What is Cambridge Pre-U?

Cambridge Pre-U is a qualification designed by Cambridge to help schools equip learners with the skills they need to succeed at university. The qualification formally recognises a learner's achievement at the end of a particular subject course. It is based on a curriculum that promotes deep understanding of subjects through specialisation.

Learners can take Cambridge Pre-U qualifications separately, and receive grades for each one, or choose three Principal Subjects to achieve the Cambridge Pre-U Diploma. To achieve the Diploma, they also need to complete Global Perspectives & Research, a qualification that gives learners the chance to develop independent thinking, research and communication skills.

- Cambridge Pre-U Principal Subjects are assessed at the end of the two-year course.
- Cambridge Pre-U Principal Subjects are recognised by UK universities as equivalent to A Levels.
- Cambridge Pre-U qualifications have an extended grade range at the top to recognise outstanding achievement. The grades awarded are reported on a nine-grade scale, reflecting three broad bands of achievement: Distinction, Merit and Pass. Each band is sub-divided into three grades: Distinction 1, 2, 3 (D1, D2, D3), Merit 1, 2, 3 (M1, M2, M3) and Pass 1, 2, 3 (P1, P2, P3). Each subject a learner takes at Cambridge Pre-U receives a separate grade, for example, D3.

Cambridge Pre-U is not time-zoned and schools outside the UK need special approval before they offer it. Schools considering offering Cambridge Pre-U outside the UK should contact Cambridge at [info@cambridgeinternational.org](mailto:info@cambridgeinternational.org)

## 2. Designing the school curriculum

### 2.6 Alternative approaches to English language development and demonstrating English language proficiency

Cambridge International offers English as a school subject, with pathways designed for first language, bilingual learners and learners who have English as a second language. Our sister organisation, Cambridge Assessment English (Cambridge English, part of Cambridge Assessment), also offers a range of English language qualifications that are widely accepted by universities, governments and employers around the world.

Both Cambridge International English as a second language and Cambridge English qualifications reference language attainment against The Common European Framework of Reference for Languages (CEFR), a widely used international standard for describing language ability. CEFR describes language ability on a six-point scale, from A1 for beginners, up to C2 for those who have mastered a language. This makes it easy for anyone involved in language teaching and testing, such as teachers or learners, to see the level of different qualifications. It also means that employers and educational institutions can easily compare Cambridge International and Cambridge English language qualifications to other exams in their country.

Cambridge International English as a Second Language is designed primarily for schools where part or all of the curriculum [not just English] is taught through the medium of English. English as a second language is available as one of the subject choices at each stage of the Cambridge Pathway from Primary to Upper Secondary. Schools receive a syllabus, support and assessment materials that are consistent with all Cambridge International courses and reporting and assessment approaches are also consistent so English as a second language fits in seamlessly with the rest of the Cambridge International curriculum.

#### Cambridge International English as a second language programmes

Cambridge International offers a progressive set of learning objectives designed to prepare learners to become skilled users of English as a second language through the Primary and Lower Secondary programmes. The learning objectives are organised into five strands, which together support the development of

knowledge, skills and understanding. The *Use of English* strand articulates the linguistic features learners need to be able to understand and use when engaging with the language productively and receptively in the *Reading*, *Writing*, *Speaking* and *Listening* strands. By identifying aspects of the curriculum which are reflected in the CEFR text and level descriptors, guidance is provided as to how the curriculum aligns to the CEFR levels. This is where appropriate, as some learning objectives are not addressed by the CEFR but considered important for supporting language learning at Primary and Lower Secondary level. The Cambridge Checkpoint tests at the end of Primary and Lower Secondary provide teachers and learners with feedback on their achievement in reading, writing, listening and use of English.

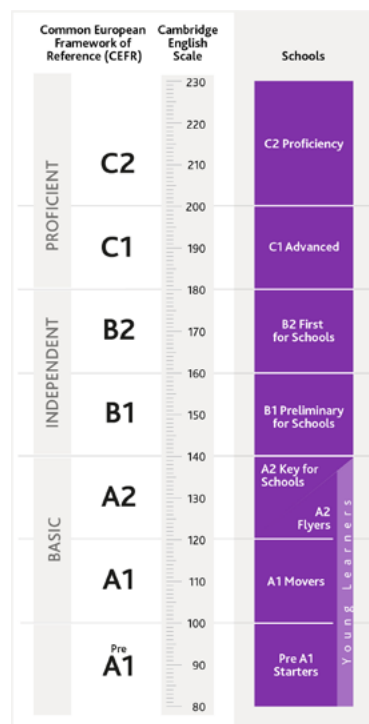
IGCSE English as a second language also aligns to CEFR but, as with primary and lower secondary, additional learning objectives considered important for a school curriculum at this stage are included. Cambridge IGCSE English as a Second Language (E2L) aims to develop communication skills in listening, speaking, reading and writing, enabling learners to become independent users of English, and to be able to use English to communicate effectively in a variety of practical contexts. Learners will be presented with a variety of stimuli that will build up their skills in reading and writing. They will learn to select relevant details, understand the difference between what is directly stated and implied, and practise writing for different purposes and audiences. They will listen to a range of spoken material, including talks and conversations, in order to develop listening skills. They will also engage in conversations on a variety of topics, and develop their skills in responding to different situations and audiences with a degree of accuracy and clarity.

#### Cambridge English Language programmes for schools

Cambridge English programmes are often most appropriate for contexts where English is the only subject being taught through the medium of English in the school and close CEFR alignment is considered a high priority. Its in-depth examinations are targeted at specific levels of the Common European Framework of Reference for Languages (CEFR), with clear progression pathways from one level to the next. Cambridge English qualifications encourage development of all four language skills. See [here](#) for more information.

## 2. Designing the school curriculum

Figure 2: Cambridge Assessment English Language Assessments Programmes for Schools



### Meeting University English language admission requirements

For learners planning to gain entry into universities in English-speaking countries, the English language component of their learning programme is really important. Universities set their own admission criteria for courses and these are usually available on their websites. In order to demonstrate English language proficiency for degree courses, some universities will accept a good grade in IGCSE English as a second language, others require IGCSE First Language English. In the United Kingdom, for example, some universities require a Secure English Language Test [SELT], such as the International English Language Testing System (IELTS) assessed by Cambridge English. There is more information on English language university admissions requirements [here](#).

## 2.7 Timetabling the curriculum

Although it is important to start the curriculum planning process by designing a school curriculum that delivers the school's mission, schools will also need to consider practical timetabling issues. These are largely determined by school context, local laws and practices, and the scale of the school budget to support resourcing. This section aims to briefly consider some of these.

The school context, vision and educational aims will influence a number of timetabling decisions including:

- the length of the school day, the number of days' schooling a week and the length of the school year
- how much flexibility is built into the curriculum to allow learners to select options and, where applicable, options within subjects
- the extent and nature of co-curricular activities and expectations or requirements for learner participation in these
- the inclusion of any additional courses or programmes that do not end in some form of external assessment, such as religious education, values education, cultural or heritage courses, student leadership and career experience programmes, and decisions about whether or not these are compulsory
- whether multi-leveilling is introduced so that learners in different year groups can be scheduled in the same class depending on their needs
- whether there will be setting by ability within a year group in some subjects such as mathematics, so that several parallel classes are run in the same timetable slots

The timetable has to be developed within the resource constraints of the school.

These constraints include:

- number of teaching and support staff
- staff contracts stipulating conditions and expectations
- subject expertise and experience of teaching staff



## 2. Designing the school curriculum

- availability of classrooms and specialist rooms – for example, science laboratories and technology rooms
- availability of resources for language support, special educational needs and gifted learning programmes

When constructing the timetable, curriculum planners must decide how much teaching time to allocate to each subject. This can be expressed in hours per week, but because schools operate different annual calendars, it is often better calculated as hours per year. This equates to the number of periods per week multiplied by the duration of these allocated periods and the number of weeks in the school year. Some schools operate timetables on a 10-day (two-weekly) cycle or some other system of rotation, for example an eight-day cycle. This can create flexibility. Most schools use a regular weekly cycle.

Table 4: Factors influencing timetable decisions

Internal influences	External influences
Organisation structure	Cambridge programme requirements
Resources including staff and facilities	Cambridge qualification requirements
Compulsory subjects or options (degree of learner choice)	Recommended hours a week for each subject
English language capability of learners	National curriculum and qualification requirements
Multi-levelling or fixed school years	External agency requirements, for example, ministry of education
Co-curriculum. Additional courses and activities outside core curriculum	University admissions criteria
Employment contracts	Requirement to take exams in English
	Core vs supplementary subject options

The guided learning hours recommended for Cambridge International programmes are shown opposite.

Table 5: Recommended guided learning hours

Programme	Subject suggested teaching hours
Cambridge Primary	<p><b>Art &amp; design</b> 30 hours per year (about 1 hour per week)</p> <p><b>Computing</b> 22–45 hours per year (about 0.5 – 1.5 hours per week)</p> <p><b>Digital literacy</b> 30 hours per year (about 1 hour per week)</p> <p><b>English</b> 120–150 hours per year (about 4–5 hours per week)</p> <p><b>English as second language</b> 120–150 hours per year (about 4–5 hours per week)</p> <p><b>Global Perspectives</b> Refer to page 15 of the Teacher Guide as teaching time is dependent on the context and how it is implemented at each school</p> <p><b>Mathematics</b> 120–150 hours per year (about 4–5 hours per week)</p> <p><b>Music</b> 30 hours per year (about 1 hour per week)</p> <p><b>Physical education</b> 60–90 hours per year (about 2–3 hours per week)</p> <p><b>Science</b> 45–60 hours per year (about 1.5–2.5 hours per week)</p>
Cambridge Lower Secondary	<p><b>Art &amp; design</b> 45 hours per year (about 1.5 hours per week)</p> <p><b>Computing</b> 45 hours per year (about 1.5 hours per week)</p> <p><b>Digital literacy</b> 30 hours per year (about 1 hour per week)</p> <p><b>English</b> 120–150 hours per year (about 4–5 hours per week)</p> <p><b>English as second language</b> 120–150 hours per year (about 4–5 hours per week)</p> <p><b>Global Perspectives</b> Refer to page 15 of the teacher guide as teaching time is dependent on the context and how it is implemented at each school</p> <p><b>Mathematics</b> 120–150 hours per year (about 4–5 hours per week)</p> <p><b>Music</b> 45 hours per year (about 1.5 hours per week)</p> <p><b>Physical education</b> 60–90 hours per year (about 2–3 hours per week)</p> <p><b>Science</b> 90 hours per year (about 3 hours per week)</p>
Cambridge Upper Secondary	About 130* hours per Cambridge IGCSE or O Level subject before taking the assessments.
Cambridge Advanced	<ul style="list-style-type: none"> <li>• Staged option 180* hours per Cambridge AS Level subject, further 180 hours per subject to complete the Cambridge A Level.</li> <li>• Non-staged option 360* hours per Cambridge A Level, normally spread over two years.</li> </ul>

\* Includes teaching time and directed study. Does not include the independent study the learner is expected to carry out. It is recommended that learners are given opportunities for independent study outside of normal timetabled lessons for Cambridge Upper Secondary and Cambridge Advanced courses.

## 2. Designing the school curriculum

There are many models for constructing a timetable. However, timetabling should take into account not only providing a schedule of lessons for particular learners in a year group, but also the practical considerations of having the right staff and the right rooms and facilities available for them to take place. The following simplified example is based on practice in one Cambridge school and is intended to illustrate one approach. Detailed consideration of different timetable options is beyond the scope of this guide.

Table 6: Example of school timetable

Period	Time of day	Year 8 class	Year 12 class
1	8:00-8:40	English	Art Business Studies IT
2	8:40-9:20	Arabic	
<b>Break</b>			
3	09:40-10:20	Religious Studies	Mathematics
4	10:20-11:00	Mathematics	
5	11:00-11:40	Science	English
6	11:40-12:20		
<b>Lunch</b>			
7	13:00-13:40	Physical Education	Chemistry/History/Geography
8	13:40-14:20		Second Language (French, Mandarin, Spanish)
9	14:20-15:00	Geography	

In this timetable, the day is divided into nine teaching periods of 40 minutes. For the Year 8 level (typically 12–13 year olds studying a blend of Cambridge Upper Secondary and the school's own curriculum) most periods are single periods of 40 minutes in length. Periods can be combined to form double periods which allow an extended amount of time for particular subjects or activities. For example, the double period for science gives the time needed to carry out practical experiments, and for physical education it includes the time needed for changing.

In Year 12, (typically 16–17 year olds studying for Cambridge AS Levels) subjects are mostly scheduled with double periods, providing 80 minutes for each lesson. Each subject has equal amounts of allocated teaching time, with three double periods and one single period throughout the week, equating to four hours and 40 minutes per subject per week. Because of the greater degree of specialisation at this level, it is possible for the school to schedule subjects to be taught at the same time (for example chemistry, history and geography in the example given above) if no learners want to study more than one of the combinations of subjects timetabled together.

Some schools have longer school days for older learners so that more time is available. This could be every school day or specific days. Extending the day to accommodate the curriculum is a way of increasing the amount of teaching time for subjects, or increasing the number of subjects on offer. Depending on a learner's choice of subjects, they may have study periods allocated in the school day to work on projects or to study in the library. This is consistent with the aim of creating independent and responsible learners but will also depend on the school's ability to provide the facilities learners need and the school's attitude to learners' time management.

The length of timetabled periods can have an impact on the types of pedagogy used in the classroom. Teachers will often adapt their teaching style and the types of activities they create to fit the available lesson duration. There is a tendency for shorter periods to become dominated by whole class instruction. Longer lessons can become wasteful if teachers have not planned and prepared enough work to fill the entire lesson. The school's quality assurance programme

## 2. Designing the school curriculum

should ensure that teachers have the right amount of time for engaging and effective lessons. Ideally, there should be enough time for the teacher to run several different activities which collectively fulfil the prescribed requirements of the syllabus or curriculum.

### 2.8 Teaching Cambridge Programmes in school systems with different requirements for the formal years of schooling

The Cambridge pathway has 13 stages and typically, a stage is covered in one year. However, in some countries, schools teach Cambridge stages in shorter or longer time periods, due to differences in the number of formal schooling years. Schools can also choose to teach some Cambridge programmes over different lengths than those most commonly adopted to meet local needs. Cambridge programmes are designed to be flexible and the following examples illustrate how some schools or regions adapt the Cambridge pathway to suit their own circumstances and needs:

#### Case Study 1:

##### **The Cambridge continuum in 12 years: the experience in Southern Africa**

Countries in Southern Africa typically have 12 rather than 13 years of formal schooling. Students start school aged 6 years old in grade 1. Secondary school usually starts at grade 8, when students are 13 years old. Some schools choose to base their school curriculum around Cambridge while others offer Cambridge alongside the national curriculum. In primary and lower secondary it is the norm for Cambridge to be used to complement national curriculum requirements or the school's own curriculum offer. In the IGCSE and A level years some schools choose to use Cambridge as an alternative to the national curriculum while others allow students to complete both providing extra lessons and support for Cambridge preparation.

Most Cambridge schools teach IGCSE over two years in grade 10 and 11 and sit final IGCSE assessments when students on average are 16 years old, while a few schools offer IGCSE over 18 months. Typically, students go on to do Cambridge

#### Case Study 1 *continued*

AS Level qualifications in the final year of school (grade 12). In some countries, IGCSE is considered the equivalent of the local school leaving certificate and schools teach up to this level. In others, AS Level is accepted as the equivalent to matriculation and the entry standard required for universities. A few schools also offer a post matriculation year grade 13 for students to do the full A Level programme (AS plus A2).

Some schools choose to accelerate Cambridge. This usually involves starting secondary school one year early at grade 7. Students complete Lower Secondary in grade 7 and 8, completing Cambridge Secondary 1 Checkpoint assessments at the end of grade 8 before moving to IGCSE which is taught in grades 9 and 10. Students then go on to do the A Level over two years. Students then have time to do AS Levels over two years (which also might also include resitting some IGCSEs). For students aspiring to the full A Level [AS and A2] they can do the staged AS to A2 route or the full A Level over two years and still graduate in grade 12. Completing the full A Level will help students who want to go to competitive universities overseas and also provides additional points strengthening their application to universities in southern Africa.

A few schools offer very flexible pathways at the secondary level. Students who perform particularly well are allowed to take IGCSE courses over one year, usually in subjects they plan to take through to the full A Level. In a few cases, students can take IGCSEs over three years. This degree of flexibility requires a timetable built around individual student needs and strengths and which can be challenging for schools.

#### Case Study 2:

##### **The Cambridge Pathway in 12 years: Case study example of Saudi Arabia and Bahrain**

Schools in Saudi Arabia and in Bahrain deliver a 12 year programme from the age of 6 to 18. It is not permitted to begin Grade 1 at the age of 5, nor can a school be licensed to deliver a 13 year programme ending at the age of 19. This leaves schools with the challenge of delivering the 13 year Cambridge Pathway in 12 years.

## 2. Designing the school curriculum

### Case Study 2 continued

Figure 3 (below) shows three different ways that schools structure the Cambridge Pathway from Primary to Advanced.

In all structures, candidates sit for Cambridge IGCSE, Cambridge International AS & A Level at the same age and Grade or Year; IGCSE – Grade 10 (Year 11 in the UK), AS – Grade 11 (Year 12 in the UK), A Level – Grade 12 (Year 13 in the UK).

Age of compulsory education  
in the Middle East

Year of external assessment

Figure 3: Three different structures used for teaching the Cambridge Pathway.

Structure 1*			Structure 2			Structure 3		
Age	Cambridge Stage	Year/Grade in KSA	Age	Cambridge Stage	Year/Grade in KSA	Age	Cambridge Stage	Year/Grade in KSA
5-6	Cambridge Primary (1)	KG2	6-7	Cambridge Primary (1)	1	6-7	Cambridge Primary (1)	1
6-7	Cambridge Primary (2)	1	7-8	Cambridge Primary (2)	2	7-8	Cambridge Primary (2)	2
7-8	Cambridge Primary (3)	2	8-9	Cambridge Primary (3)	3	8-9	Cambridge Primary (3)	3
8-9	Cambridge Primary (4)	3	9-10	Cambridge Primary (4)	4	9-10	Cambridge Primary (4)	4
9-10	Cambridge Primary (5)	4	10-11	Cambridge Primary (5+6)* (Cambridge Primary Checkpoint)	5	10-11	Cambridge Primary (5)	5
10-11	Cambridge Primary (6) (Cambridge Primary Checkpoint)	5	11-12	Cambridge Lower Secondary (7)	6	11-12	Cambridge Primary (6) (Cambridge Primary Checkpoint)	6
11-12	Cambridge Lower Secondary (7)	6	12-13	Cambridge Lower Secondary (8)	7	12-13	Cambridge Lower Secondary (7+8)**	7
12-13	Cambridge Lower Secondary (8)	7	13-14	Cambridge Lower Secondary (9) (Cambridge Lower Secondary Checkpoint)	8	13-14	Cambridge Lower Secondary (9) (Cambridge Lower Secondary Checkpoint)	8
13-14	Cambridge Lower Secondary (9) (Cambridge Lower Secondary Checkpoint)	8	14-15	Cambridge IGCSE Year 1 (10)	9	14-15	Cambridge IGCSE Year 1 (10)	9
14-15	Cambridge IGCSE Year 1 (10)	9	15-16	Cambridge IGCSE Year 2 (11)	10	15-16	Cambridge IGCSE Year 2 (11)	10
15-16	Cambridge IGCSE Year 2 (11)	10	16-17	Cambridge International AS & A Level Year 1 (12)	11	16-17	Cambridge International AS & A Level Year 1 (12)	11
16-17	Cambridge International AS & A Level Year 1 (12)	11	17-18	Cambridge International AS & A Level Year 2 (13)	12	17-18	Cambridge International AS & A Level Year 2 (13)	12
17-18	Cambridge International AS & A Level Year 2 (13)	12						

\*See Structure 2 information on the next page

\*\* See Structure 3 information on the next page

## 2. Designing the school curriculum

### Case Study 2 continued

In **Structure 1**, schools begin delivering Cambridge Primary in the equivalent of reception i.e. KG2 (the second year of Kindergarten), and begin Cambridge Primary stage 2 in Grade 1 at the age of 6. Although this structure is designed according to Cambridge's recommended age guidelines, it is challenging to implement. The main challenge is that most new enrolments at Grade 1 (which usually accounts for over 50% of students) are from children that had no prior formal education experience, making stage 2 of the Cambridge Primary programme a challenge to teach. By using this structure, candidates sit for the Cambridge Primary Checkpoint in Grade 5 (equivalent to Year 6 in the UK) and Lower Secondary Checkpoint in Grade 8 (equivalent to Year 9 in the UK).

In **Structure 2**, schools begin delivering Cambridge Primary in Grade 1 (equivalent to Year 2 in the UK), and compress the Cambridge Primary Programme into 5 years. This is typically done by covering Stage 4 and 50% of Stage 5 of the Cambridge Primary curriculum in Grade 4, and covering the remaining 50% of Stage 5 and Stage 6 in Grade 5. By using this structure, candidates sit for the Cambridge Primary Checkpoint in Grade 5 (equivalent to Year 6 in the UK) and Lower Secondary Checkpoint in Grade 8 (equivalent to Year 9 in the UK).

**Structure 3** is the most common way the Cambridge Pathway is delivered. Schools begin delivering Cambridge Primary in Grade 1, and teach the six stages in six years. This way, any new students joining the school during primary, don't face the challenge of having to cover more content in a shorter period. They then compress Cambridge Lower Secondary by teaching the three stages of the curriculum in two years. They achieve this by delivering Stage 7 and 50% of Stage 8 in Grade 7, and the remaining 50% of Stage 8 together with Stage 9 in Grade 8 (as shown in Table 7).

**Table 7 compression stages 7-9 into two years**

Stage 7	Stage 8	Stage 9
Grade 7		Grade 8

### Case Study 2 continued

#### Example of Structure 3

A school in Bahrain covers the content of all three stages effectively in approximately 64 teaching weeks (32 in Grade 7, 32 in Grade 8) by delivering 9 periods a week for science (chemistry x 3, biology x 3, physics x 3), eight periods a week for English, and eight periods a week for mathematics (each period is 45 minutes). This school has found the planning templates Cambridge provides as an effective tool to support planning the delivery of these three stages – in particular the long-term planning templates with learning objectives. The cumulative grade distribution at IGCSE for School A is higher than the country's average – an indication that this structure has worked effectively for their students.

### Case Study 3:

#### Covering the Cambridge Primary programme in five years at HLC International School, Karanai, India

HLC serves students aged 2.5 to 18 years old (from Kindergarten to pre-university). It bases its curriculum around the Cambridge Pathway, offering Primary and Secondary Checkpoints, IGCSE, AS and A Levels. The school strongly emphasises and supports inclusion and diversity and strives to develop the whole person through five initiatives. Supporting inclusion and diversity [Elina]; Differentiated instruction based on evidence [Kognify]; Global citizenship [Karthayam]; collaboration and sport [Explorers]; and community learning [Militvaa]. The school was one of the first Ashoka Changemaker schools in the world.

One challenge the school faces is that the school system in India is based on 12 rather than 13 years of schooling. In order to cover the six stages of Cambridge Primary in five years, the school has re-organised the stages - placing some a year earlier. Some stages are introduced in the final year of Kindergarten so that students are accelerated into the programme. Teachers have taken the Cambridge curriculum and carefully planned their schemes of work for each year with progression in mind. Expectations for progression for all students are high and students are supported through the Elina and Kognify initiatives.

## 2. Designing the school curriculum

### Case Study 4:

#### Teaching Cambridge IGCSE in One year at the RDFZ Chaoyang Branch School in Beijing

RDFZ Chaoyang Branch School (RDFZ CBS) is a secondary school. It is a branch of RDFZ, which is affiliated to Renmin University of China under the jurisdiction of the Ministry of Education. The school offers the best of Chinese education together with an international programme that complements the local requirements. In addition to the mandatory Chinese curriculum, RDFZ CBS provides a range of international courses, some compulsory, but many are voluntary. The school strives for academic excellence and the development of broader skills and competencies supporting the development of individual interests.

The main component of the Senior 1 programme (Year 10) are Cambridge IGCSEs. They are intensively taught over the course of nine months from September to May. All of the students are Chinese nationals so are second language English speakers. Students must study English, either English as a second language (or literature for the more able), mathematics and a science - they can choose from biology, chemistry, environmental management or physics). Students can then pick an additional three option subjects from a choice of: accounting, art & design, biology, business studies, chemistry, drama, economics, environmental management, ICT, music, or physics. Examination results are pleasing typically with 48% receiving A\* or A.

The timetable is made up of 45, 40-minute periods in a week. All students do eight lessons of English and weaker students also do 5 lessons of extra English (taught by bilingual teachers). All other Cambridge IGCSE subjects are taught in five lessons per week. Students must also complete all compulsory elements of the Chinese curriculum. This includes Chinese language & literature, Chinese music, Chinese art, PE, Chinese history, geography, PE, political science and counselling. Students also have to do two extra-curricular activities after school on a Tuesday and a Thursday. They choose from over 100 activities which are offered by the staff.

### Case Study 5:

#### A broad and balanced curriculum offer at the International School of Brunei

The International school of Brunei (ISB) is an inclusive and not-for-profit co-educational day and boarding school serving approximately 1,400 students aged 2-18 through the early years, primary and secondary sections. The student body comprises over forty different nationalities. The school emphasises academic success and the self-development of students through involvement in a wide range of sport, music, art, drama and outdoor education and is a non-selective school, with a wide range of abilities and aptitudes.

*CLICK AND HOLD TO ENLARGE*

The curriculum for students between the ages of 13 and 16 (years 9, 10 and 11 in the UK system) is designed around the IGCSE. A student's compulsory (core) curriculum requirement is made up of English, mathematics, coordinated science or two single sciences, and a language.

## 2. Designing the school curriculum

### Case Study 5 continued

To widen the curriculum offer, and create the flexibility that the ability range requires, the school starts vertical option blocks in Year 9. Under this system, options are chosen and these run for one year, with the recommended Cambridge time allocation. This creates a range of benefits: minority subjects run as choices across much bigger student totals comprising three year groups, international student movement is better accommodated through the one year cycle and the problem of subjects being over-subscribed is eradicated as the system is not a 'one-off'.

Furthermore, it greatly helps to create additional subject challenge for the higher ability Year 9 and 10 students outside the normal examination cycle. In addition, due to the overall time savings (six hours per week), accrued through early IGCSE study, the school is able to offer a wider range of enrichment opportunities based on staff interest and expertise, which are scheduled on the main timetable and viewed as part of the formal curriculum and not as extra-curricular. These run after school and in lunchtimes.

In terms of student welfare, it could be argued that there is a benefit to spreading the examinations over three years, rather than confining them all to the end of Year 11. Through this system, students are able to study a broader and more balanced curriculum, allowing them more opportunity to explore areas of personal interest and develop a wider range of skills and understanding. Physical education and a school based course on 'essentials for learning and life' are also taken by all and are non-examinable. These are not shown in the diagram.

### 2.9 Curriculum models for bilingual and multilingual schools

Many schools find it ideal to use Cambridge programmes and qualifications for the English-medium (second-language) strand of a bilingual (or trilingual) education programme. They then use their own national curriculum and qualifications for the first-language strand of the programme.

There are many ways of organising bilingual education and the best approach will depend on the school vision and practical considerations, including resources, suitable teaching staff, environment and the exposure of learners to English language outside the school.

A bilingual/multilingual curriculum model is based on how many subjects are taught and learnt through each language and over how much time.

For example, some schools:

• begin in a small way by teaching one module or project in English	Short-term	Low intensity
• prepare learners by immersing them in English for a short period, e.g. through overseas student exchanges, or by teaching all curriculum subjects in English for one school term	Short-term	High intensity
• teach one or two content subjects in English over several years	Long-term	Low intensity
• teach a substantial part of the curriculum in English over several years	Long-term	High intensity

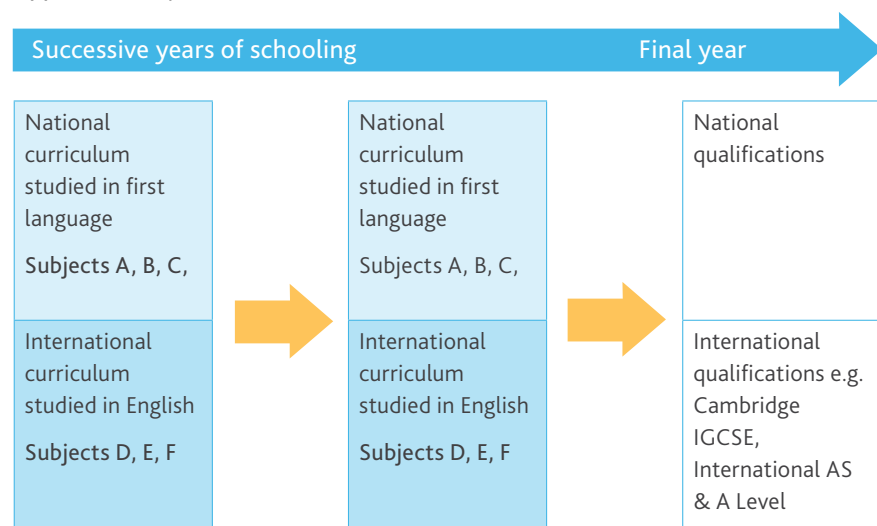
Fundamental to all these approaches is having teachers who are able to teach their content through the medium of English. Cambridge recommends content and language integrated learning (CLIL) as a methodology to support this process. This means teachers are supporting students in learning the language they need to achieve in their subjects. Schools will need a training strategy to allow local teachers to build up their second-language skills so they can teach their subject through the medium of English unless teachers are already well prepared.

## 2. Designing the school curriculum

Bilingual education usually requires meeting the needs of two curricula – a national (or sometimes regional) curriculum and an international curriculum. How do schools organise the timetable?

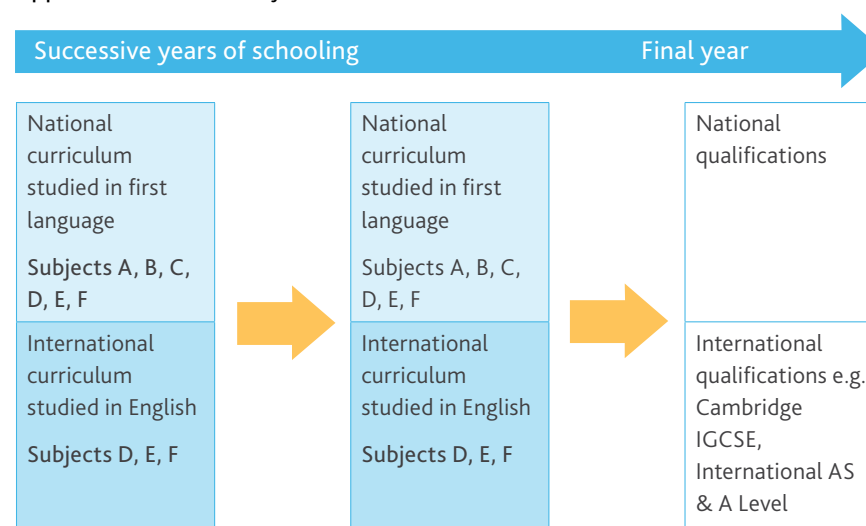
There are two key approaches.

### Approach A: Split curriculum



In Approach A, learners study some subjects as part of the national curriculum and other subjects as part of an international curriculum. In this way the problem of double timetabling is avoided. This model is only possible if equal official recognition is given to the qualifications taken in both curricula.

### Approach B: Shared subject curriculum



In Approach B, learners study some subjects in both the first language and English. This could allow learners to take both national qualifications and Cambridge qualifications. They study the remaining subjects in the first language. The common subjects (D E F) could be taught using:

1. An integrated curriculum. Teachers should first compare the national curriculum against the Cambridge curriculum for a subject. This will allow them to identify areas of overlap and difference and help them work out what they need to teach in total. Then they can teach the integrated curriculum:
  - either in the same class using one bilingual teacher or two team-teachers, one for each language/curriculum. In this way, the same teaching and learning can enable learners to take two qualifications – the national qualification in the first language and the Cambridge qualification in English.



## 2. Designing the school curriculum

- or rotating classes/weeks/topics/terms/years between the first language and English. Sometimes the learning is rotated or sandwiched over several years. In this way, learning starts in the early years with the national curriculum through the first language, then switches for a period of years to the Cambridge curriculum, when this 'learning in English' period allows learners to work towards international qualifications, before returning to national curriculum priorities in the final years.

An integrated curriculum means that learning is streamlined for the benefit of the learner – the learner just goes to one timetabled class for a subject. However, this does require curriculum mapping, planning and teacher coordination.

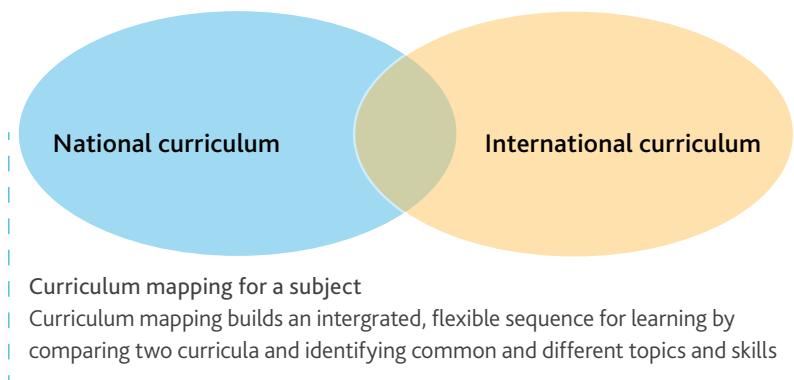
2. **Two separate curricula.** The national and Cambridge curricula for a subject are covered in separate classes and languages, with no mapping of areas of overlap/difference.

If the curricula are separate, the learner is probably aware they are going to a national curriculum class and then to a separate Cambridge (e.g. IGCSE) class. Also, some of the learning may be duplicated. However, this may be easier for the school to organise if it is difficult to map the two curricula, if there is not enough overlap between curricula, or if there is a language barrier which prevents teachers coordinating to produce and teach a single, integrated curriculum.



Learners in all Cambridge schools need to be able to complete their studies and undertake assessments in subjects through the medium of English. This can be challenging for learners with English as a second language, but there are educational advantages in supporting language development and bilingualism. Not only are learners better prepared for participation in the modern global world, bilingualism also helps support individual cognitive development.

Even if a school is not running a bilingual education programme, there are other ways of developing 'language awareness' in international English-medium schools in order to help support bilingualism or multilingualism. An effective language policy can help to achieve this. Cambridge is committed to supporting schools to develop and implement strategies successfully to support learners in multilingual settings. Cambridge ensures that assessments are fair to learners who do not have English as a first language.



## 2. Designing the school curriculum

More information is available [here](#).

### Case Study 6:

#### Supporting the development of multi-lingualism and global perspectives in the Netherlands

A number of state schools in the Netherlands complement the national curriculum with Cambridge programmes, using the support of Nuffic. Nuffic is an independent, Dutch, not-for-profit organisation dedicated to supporting institutions in the Netherlands with educational and other programmes that foster international co-operation, awareness and language development. Two examples are the Christelijke Scholengemeenschap [CS] Vincent van Gogh in Assen and the Sintermeerten College, Heerlen.

CS Vincent Van Gogh supports the development of critical thinking, global awareness and English proficiency by requiring all students to complete Cambridge IGCSE and AS Level Global Perspectives and IGCSE English as a Second Language. Cambridge Global Perspectives is taught as a separate class and IGCSE English as a Second Language is integrated into regular English lessons. Global Perspectives fits in particularly well with the international scope of the school's bilingual education, as well as nurturing important research skills and IGCSE English as a Second Language is an ideal way to show that students have reached CEFR B2, as well as a good extra certificate for students at the end of Year 3.

Sintermeerten college requires all students in the bilingual programme to take Cambridge Global Perspectives at IGCSE and AS Level. Cambridge Global Perspectives has been successful at supporting the development of English language and research skills and provides a stimulating and relevant course for bilingual students. The school has recently introduced IGCSE History as an option to challenge the more capable students and they have found this course challenging because of the level of English demanded. The school is considering other Cambridge options, for example AS English and possibly a science.