

1. Curriculum planning: An overview

This chapter considers what the curriculum is and how it should be derived from the school's educational vision. It highlights the fact that qualifications form only part of the curriculum. Every school is unique and school leaders must consider how to support its implementation, which may necessitate changes to a school's structure and operations. We introduce some fundamental principles that need to be considered in the curriculum design process. Chapter 2 of the learner attributes guide provides further guidance.

1.1 What is curriculum?

Across the world, the term curriculum is used in several different ways.

In some countries, 'curriculum' has a holistic meaning encompassing not only subjects, but also the connections between subjects, teaching methods and all aspects of schooling that define the learner's experience. In other countries, a narrower interpretation is used, referring either to a prescribed range of courses (the curriculum in Year 6 contains eight different subjects) or a specific learning programme across different years (the chemistry curriculum at secondary level). This guide uses the following definitions:

- A school curriculum refers to the combination of subjects studied within a school year and in sequential years as the learner moves through the educational system provided by the school.
- A subject curriculum refers to the content and skills contained within a syllabus applied across sequential stages of student learning. These stages normally refer to school year levels, and therefore a particular age of learner.
- Co-curricular curriculum refers to valued educational activities that support learning beyond the school curriculum, which the school encourages and supports.
- The experienced curriculum refers to the learning students actually receive as a result of the whole educational experience the school provides. This includes the impact of the school curriculum, teaching approaches, the co-curricular curriculum and the learning environment. It includes both the planned and unplanned or unintended outcomes of the curriculum.

The wider learning experience:

Planning the school curriculum in terms of subjects and qualifications is only part of the process. The experienced curriculum in an excellent school provides a learning experience that is more than the sum of the qualifications, subjects and activities that are visible on the school schedule. This is because careful attention in curriculum design and implementation is given to learning within, across and between the subjects and activities. All teachers and school staff support the development of the learner attributes and other qualities identified in the school's vision. Breadth, balance and coherence need to be built in by design. The school's vision and aims will include personal and social outcomes as well as academic ones. Learning does not begin or end in classrooms, but permeates the school environment and broader community.

What learners actually experience may not be the same as the written objectives of the curriculum – it will be the consequence of a complex web of interdependent parts including:

- the school's vision and values
- teaching quality
- learner motivation and prior knowledge
- school leadership, environment and culture
- the school's curriculum and subject curricula
- assessment practices and expectations
- the school's internal structures and operations.

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Therefore, the experienced curriculum is necessarily unique to each school, and designing or re-evaluating a curriculum is a complex and challenging task. Schools should regularly evaluate their outcomes against intentions, ensuring that they are optimising learners' educational experiences in line with the school's vision and mission.

School vision, mission and plan:

The school vision is a compelling sense of the future direction of the school. It should inspire commitment from the whole school community and be widely shared.

Most schools also have a mission statement, which is a written declaration defining the school's educational purpose. Educational aims might be included in the mission statement or listed separately. Together with the vision and mission, they provide focus and guidance on what the priorities are.

The school strategic plan gives practical direction to the vision, mission statement and aims. This should include a statement headlining longer-term priorities/objectives of up to five years ahead, and a detailed one-year implementation plan.

Curriculum planning:

Table 1 below outlines some of the many questions that schools need to address when planning the school curriculum. It shows that these decisions must be based on the school's vision, mission and educational aims, taking into consideration school structures and building school capacity.

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Table 1: Curriculum planning within a school context: Some critical questions

School Vision and Strategic Planning – achieving the desired learning outcomes	
Building school capacity	Structure and operation
<p>Learners</p> <p>What are the expected academic, personal and social outcomes?</p> <p>Which skills and competencies should learners acquire through the curriculum?</p> <p>How will the curriculum motivate, engage and challenge learners?</p> <p>Is the curriculum relevant to the needs of learners – now and in the future?</p> <p>What attributes are being modelled for learners across the school?</p>	<p>Designing a curriculum</p> <p>Which Cambridge programmes and subjects will be included and how will these complement other educational programmes and qualifications offered by the school?</p> <p>Does the curriculum reflect the school's vision and context?</p> <p>How will learning within local or national contexts be developed in the curriculum?</p> <p>How will the school support learners who do not have English as a first language?</p> <p>Which subjects will be taught in English? (In bi-lingual schools)</p>

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School Vision and Strategic Planning – achieving the desired learning outcomes	
Building school capacity	Structure and operation
<p>Teachers</p> <p>Which pedagogical and assessment practices should lie at the centre of teaching and learning?</p> <p>What teacher professional development is required to ensure effective planning and delivery of the curriculum?</p> <p>How will teachers be encouraged to self-reflect on their current teaching practices and the learning achievement of their students based on meaningful evidence?</p> <p>Is there provision for teachers to undertake relevant professional qualification courses to enhance their professional learning and the quality of student learning experiences?</p> <p>How will teacher professional development remain relevant and targeted?</p>	<p>Qualifications</p> <p>Will the school offer national as well as Cambridge qualifications?</p> <p>Is progression from one level to the next coherent?</p> <p>Will there be any scheduling or organisational difficulties if dual qualifications are offered? Will these combinations of qualifications support learners applying to higher education (in secondary schools)?</p>
<p>Leadership and Management</p> <p>Does the school have an effective governance structure with clear roles and responsibilities?</p> <p>What role do school administrators have in the delivery of the curriculum and in supporting teachers?</p> <p>How do leaders know that effective teaching and real learning are taking place in classrooms?</p> <p>How is the school measuring the impact of the curriculum? And what are they doing with this information?</p> <p>Are effective collegial and collaborative team structures and dynamics operating school-wide and within subject/learning areas?</p> <p>Are inter-school networking opportunities available for teachers and school leaders to support the implementation and development of the curriculum?</p> <p>How will the school engage with/use professional learning networks?</p> <p>Has the leadership team communicated the school vision to all stakeholders appropriately and effectively?</p>	<p>Timetabling</p> <p>How many subjects will be studied and for how many hours in each subject? How will this vary from one year to the next as learners progress through the school?</p> <p>Will the curriculum be fixed (compulsory) or provide a measure of learner subject choice? How will such flexibility be balanced against the school's current resourcing and staffing provisions?</p>

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School Vision and Strategic Planning – achieving the desired learning outcomes	
Building school capacity	Structure and operation
School and the community What involvement will school support groups and other community groups have? What contributions can these groups make in the development of the curriculum? How can the resources of the local community be linked into the school curriculum?	Facilities What facilities will be required to accommodate the requirements of specialist subjects? Does the school provide appropriate learning environments for studying all subjects in the curriculum?
	Resourcing What financial provision is available for delivering the curriculum, in terms of teaching resources, teacher support and administrative requirements? Does the school have effective communication and co-ordination systems and structures for implementing, managing and refining the curriculum?

1.2 Principles fundamental to successful curriculum design and implementation

Cambridge schools operate in a wide range of contexts with differing demands and expectations. The curriculum is at the heart of schools' strategies to raise achievement and improve outcomes for all learners. While some schools will prefer to offer a curriculum made up entirely of combinations of Cambridge courses, combining these to form a programme of study, other schools will select individual subject syllabuses and combine them with qualifications and educational programmes from other national or international providers.

We believe that certain principles are fundamental to successful curriculum design and implementation in all situations:

1. The school curriculum should deliver a broad, balanced and consistent programme of learning with clear and smooth progression routes designed for the needs of all learners.

When planning the school curriculum, the school leadership must choose both the subjects to be studied for each year, as well as a sequential programme from one year to the next. Time and resource limitations mean that school leaders

must carefully prioritise and make choices when planning a curriculum. Different societal or cultural norms will influence this process of prioritisation and there is no one-size-fits-all solution.

Certain considerations are, however, universally significant:

- The values and educational aims of the school must guide all decisions about the curriculum. Normally this results in a balance of subjects and activities covering different educational processes, objectives and content, developing a holistic set of skills and knowledge.
- Quality is more important than quantity. It can be tempting to add more subjects and/or content to the curriculum, with the noble intention of maximising learning. Too much content, however, does not allow time to support depth of understanding and the practice students need for deep learning. Less can actually be more.
- Progression through the curriculum must be consistent. The curriculum should give learners the understanding, knowledge and skills they need to allow them to progress to the next educational stage.

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- A spiral approach to skill development is supported. Each successive stage revisits critical learning areas and builds on them, respecting the learners' developmental stage.

In addition to these universal considerations, other aspects for a school to consider include:

- **Consistency** – This is concerned with progression in knowledge and skills from one stage to the next. Do the different stages align? Are learners appropriately prepared and challenged at each stage? It is reasonable to expect changes in emphasis and approach as learners become more mature. Consistency does not mean that the curriculum will stay the same, but it is important for changes to be planned rather than unintentional.
- **Balance** – The concept of breadth and balance will be illuminated by the school's vision and educational aims. A balanced curriculum normally includes mathematics, languages, sciences, technology, humanities, creative arts and physical education. A broad curriculum allows learners to experience, acquire and develop essential and valued learning from a variety of contexts. It may be that some disciplines, for example information technology, are infused in the teaching of other subjects rather than being taught as a discrete subject. There is still the need for a clear identification of these activities, supported by a written curriculum that helps define precisely who is responsible for their development. It is also important that literacy and numeracy are supported by teachers of all subjects, not just in languages and mathematics.
- **Preparation for higher education** – In the senior years of schooling, some narrowing of the curriculum may be expected as learners prepare for specific qualifications required for progression to higher education. Learners should still be expected to take part in activities and programmes that are complementary to the academic qualifications they are preparing for, and the school should provide a breadth of activity and engagement in support of the school's mission.



- **Combining curricula** – The school is combining Cambridge qualifications with others, it is important to consider compatibility issues. It may be that other qualifications or programmes of study incorporate different approaches to teaching, learning and assessment from those described in this guide. This will require careful planning and coordination to ensure that any differences are clearly understood and accommodated.
- **Effectiveness** – Cambridge's syllabuses, teacher support material, teacher professional development and assessments are designed by subject experts to support a smooth progression from primary to upper secondary, but it is up to the school to make it happen. It is essential that schools create their own schemes of work and lessons plans to make the Cambridge syllabuses locally relevant and make sure teachers are teaching these effectively. The curriculum is locally constructed in the school.

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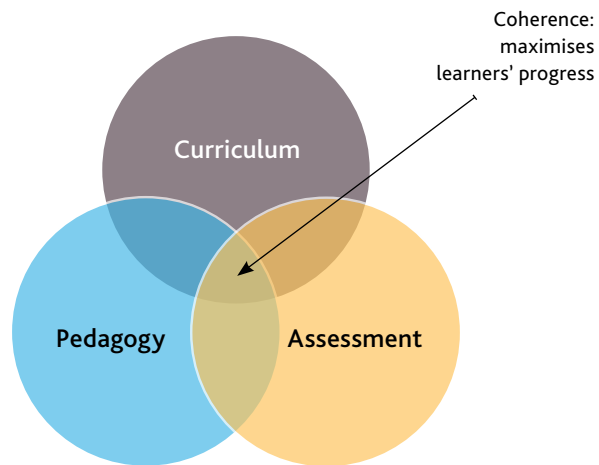
2. The instructional system is well aligned and coherent

A well-designed instructional system is more than the sum of its parts. A curriculum is coherent when the prescribed content, textbooks, resources, and approaches to teaching and assessment are aligned and reinforce one another.

The learning experiences should be thoughtfully sequenced to respect students' developmental stages. The content of the curriculum, the pedagogical approach and the assessment approach must also be aligned in order to maximise learner development and achievement.

Cambridge syllabuses, teacher support material, endorsed textbooks and Cambridge professional development opportunities are designed to ensure alignment of the curriculum and pedagogy. Cambridge assessments are designed to ensure that they are valid, only assessing what is clearly defined in the syllabus assessment objectives.

Figure 1: An aligned instructional system



3. The curriculum supports the development of learners and teachers who are confident, responsible, reflective, innovative and engaged.

To help schools develop good learning habits, Cambridge has developed the learner and teacher attributes (see table 8 in chapter 3). Learning habits describe how students and teachers approach a given situation, environment or challenge. They include a combination of values, attitudes, knowledge, skills and strategies and assume competence – the skilled and appropriate application of the attribute.

Many schools have additional learner attributes, reflecting their school mission, and the way that the attributes are used varies widely. The ● Developing the Cambridge learner attributes guide provides a comprehensive resource for schools to consult.

4. Each subject curriculum should provide learners and teachers with inspiring and relevant content and an appropriate breadth and depth of subject knowledge.

Subject curricula should be formulated chronologically in a learning spiral so they provide appropriate progression from one stage of education to the next. The knowledge, understanding and skills acquired at each year level forms the foundation for learning at the next. In order to develop a deep level of understanding, while building a solid foundation for future progression, learners need to revisit and practice important knowledge and skills repeatedly in a number of different contexts. In planning the curriculum, time for this needs to be allowed so that depth of coverage is supported, reinforcing prior learning and creating links to new learning.

Cambridge offers subject curricula that are based on specified educational standards appropriate to the learners' development stage across the years of schooling. We work closely with universities and other higher education providers around the world to ensure they recognise our qualifications and that our qualifications provide the best possible preparation for students to do well in their studies once they get into University.

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5. The school curriculum should recognise the language background of learners and provide them with the support they need to access the curriculum.

Schools almost always have learners with a range of exposure to and competence in different languages. This reality must be reflected in curriculum planning and in a coherent language policy reflecting the school's situation.

Language needs to be prioritised in the curriculum. Learners need to have excellent skills in their native or first language as this will directly influence their cognitive development in all subject areas. They also need to have excellent English language skills in order to access the curriculum if it is taught through the medium of English.

Students attending international schools are often learning the curriculum through the medium of English, so developing a high level of English language competence will help them learn. It is also critical that students continue to develop their first or best language. Language development helps develop student identity, international understanding and the Cambridge learner attributes.

All Cambridge qualifications are assessed in English. Learners must therefore develop sufficient skills in reading and writing in English to be able to take Cambridge assessments. However, they also need English speaking and listening skills to be able to learn effectively. Learning through English becomes an integral component of study. Schools develop a range of strategies that allow learners to progressively advance these skills prior to taking examinations. One such strategy is for all teachers to be 'language aware' - planning language support in their classes, and enabling them to be language teachers as well as teachers of their own subject disciplines.

Cambridge supports schools who want to use bilingual education programmes. This is where two or more languages are used as the medium of instruction for non-language subjects. Learners study some non-language school subjects, such as maths or geography, mainly through a second or third language, and some subjects through their first language. The understanding of bilingual education is linked to other educational concepts such as content and language integrated

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learning (CLIL). Here, in content classes, learners develop subject knowledge and new language skills at the same time. If dual national and international qualifications are being offered, the curriculum may specify subjects that will be taught through either English or the first language, that is, in a bilingual curriculum design. To find out more about our approach to bilingual education visit www.cambridgeinternational.org/bilingual

We are aware that most learners completing our programmes and qualifications are operating in a language that which is not their first language. Examiners apply a positive marking approach, looking to award marks when a learner has demonstrated understanding. Learners are not penalised for spelling and grammatical errors except in the assessment of languages which are testing language skills.

6. Assessment has a number of purposes that are essential to the educational process.

These purposes include assessment for learning (providing feedback in support of the learning process), and summative assessment (determining a learner's level of performance).

Assessment is an integral component of each subject's curriculum. Pedagogy and assessment are inseparable in the teaching and learning process, as development in one reciprocates change in the other. Assessment for learning practices are essential teaching strategies that inform teachers and learners about the current level of understanding and skill acquisition during the actual teaching phase, providing guidance and feedback for subsequent teaching. Summative assessment is carried out at the end of a period of learning and its

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purpose is to judge what standard the learner has reached. The final assessments in many Cambridge qualifications are high stakes because results influence progression onto the next stage of education or higher education, and can be used to make external judgements (for example by a university) of the learner's level of performance.

- 7. Clear and meaningful educational standards are essential to ensure accurate measurement of progress and achievement and allow for international benchmarking and comparability.

Clear standards are necessary for defining learning expectations, measuring progress, setting targets, comparing performance and certifying attainment. They are also critical to help teachers understand learners' strengths and weaknesses and to help learners understand their own learning progression. Assessment of specific and transparent educational standards enables the benchmarking of learner achievement on a local (school), national and international scale. Cambridge uses a number of different standards in relation to our syllabuses and assessments that are considered in detail in our code of [practice document](#). Our teaching resources and endorsed textbooks exemplify these. For information on our school leader and school teacher standards see [here](#) and on our school self-evaluation standards see [here](#). Cambridge ensures that all its high-stakes summative assessments are valid, reliable and fair, while adhering to the highest technical standards.

- 8. Teachers are the most powerful influence on student learning.

Reflective practice supported by professional development is an essential and continuous part of a teacher's life.

Curriculum is intertwined with pedagogy and effective teaching practice is a necessary condition for effective curriculum implementation. Teachers make the curriculum real by translating learning and assessment objectives, syllabus aims, subject content and school policy into meaningful learning experiences. The learner attributes apply to both teachers and learners, as teachers are required to exemplify the processes and practices expected of learners.

Systematic teacher professional development (PD) is therefore a critical tool to enhance both student learning and school performance. Cambridge provides a range of PD opportunities and resources aligned to the different backgrounds and levels of experience of teachers.

These support the teaching of Cambridge programmes and qualifications and the development of pedagogical skills. They help teachers to become confident, responsible, reflective, innovative and engaged. There are also numerous other excellent PD options that teachers can follow. Professional development should not be confined to Cambridge offerings, but does need to be consistent with the principles described in this guide.

One purpose of PD is supporting evidence-based reflective practice in day-to-day teaching. One of the best ways of achieving this is through teachers working collaboratively in professional learning communities and networks of local schools, but they can also draw on the wider international Cambridge community. Digital communications such as the internet let us easily, efficiently and economically share experiences, ideas and initiatives across the community, with our common goal of improving the quality of teaching and learning for all.

Experienced teachers are encouraged to become Cambridge teacher trainers and examiners. Being an examiner or trainer is a most effective way of developing teachers' own practice, helping to improve professional practice within their school as well as contributing to the wider Cambridge International community.

- 9. The pedagogy required to optimise learning using Cambridge curricula requires the active engagement of the learner.

Good teaching practice is not something that can be easily prescribed, and there are important cultural and local influences that will help to define what 'good' means. One universal principle fundamental to all effective approaches is that the learner must be actively engaged in their own learning.

Knowledge and understanding cannot be transmitted from the teacher to the learner. The learner's existing mental models must be challenged and extended. Teachers have to constantly listen to the voice of the learner, both in the classroom and in the work they produce, and engage with it to support learning

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and understanding. This process helps learners become independent, as they start to model the teacher's approach.

Active learning requires teachers to lead learning, not just be facilitators of learning. This involves constantly monitoring the impact of their instructional approaches and adjusting what they do based on feedback. They need to build meaningful links in learners' minds between prior and newly acquired knowledge and understanding, while providing appropriate challenge.

10. Strong leadership is a necessary condition for sustained school improvement and curriculum development.

School leaders contribute in a variety of ways to the design and successful implementation of the school curriculum. Schools are a complex web of interdependent parts, and responsibilities of school leadership include getting the best out of both individuals and the system, and developing the system to better achieve the school's mission.

Excellent school leaders create the conditions to realise teachers' potential. Teachers should themselves be viewed as leaders. They lead in the classroom by making the curriculum real to learners and creating opportunities for student learning. Teachers, as reflective practitioners, can also play an important role in school improvement and become positive agents of institutional change.

11. Curriculum development involves an ongoing process of evidence gathering and evaluation.

Schools are in a constant state of development, evolving as they respond to changing internal needs and externally imposed requirements. Conducting regular reviews of the school curriculum, and the effectiveness of its implementation and delivery, should be a priority. School leaders and teachers need to be concerned with measuring the impact of the curriculum. Is it actually delivering what it intends? How do we know? What are the perceptions of students? Such reviews are fundamental elements of the annual school management cycle – a process of goal setting, monitoring, evidence collecting and evaluation leading to affirmation or refinement of the school's strategic plan.

12. The curriculum needs to ensure all learners fulfil their potential.

Effective schools can be defined as those that successfully progress the learning and development of all of their students, regardless of intake characteristics, beyond the normal development curve. Schools support all learners to fulfil their potential and overcome any barriers to learning they encounter.

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