

Curriculum Victoria: Foundations for the Future

Summary Report of an analysis of
national and international curriculum and standards documents
for the compulsory years

March 2004

VICTORIAN CURRICULUM AND ASSESSMENT AUTHORITY



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Background

The Victorian Curriculum and Assessment Authority (VCAA) commissioned this research project during 2003. Its purpose was to focus on national and international initiatives and current directions in the development of curriculum and standards documents for the compulsory years.

Phase 1 of the project was the conduct of a literature search that analysed 14 curriculum and standards documents for the compulsory years (7 Australian and 7 international). This phase of the project was designed to:

- contribute to the development of a clearer rationale for the selection of curriculum content, defined as including knowledge, skills and attitudes
- indicate best practice in relation to pedagogy and assessment
- provide exemplary models for the design of curriculum and standards documents for the compulsory years
- provide insights into how to resolve current concerns about the adequacy of curriculum and standards documents for the compulsory years.

Phase 2 of the project included:

- an analysis of key issues identified in the literature search
- comparisons between the approach to curriculum and assessment taken in the Victorian Curriculum and Standards Framework II (CSF II) and that of other jurisdictions
- an evaluation of the curriculum documents in terms of world's best practice
- an analysis of the impact of outcomes-based and other curriculum and standards frameworks nationally and internationally
- implications for policy directions.

This report summarises the key findings of the project and outlines issues and implications for a renewed Victorian curriculum. Appendix 1 provides a summary of the curriculum structures and frameworks of the 14 educational jurisdictions analysed in the course of the project.

Executive Summary

Governments in many developed and developing countries are attempting dramatic changes in their systems and approaches to education. They are doing so because successful education systems are increasingly seen as key elements in social and economic success in the 21st century, a century in which knowledge based industries and the ability of societies to be innovative and productive are expected to be essential ingredients of progress.

Within Australia and internationally over the past decade, there have been significant reviews of education, initially commencing with curriculum in the early and senior years, and more recently with curriculum in the middle years. Each of the states and territories has developed relatively new curriculum and standards documents for the compulsory years. In reviewing their curriculum frameworks, state and territory curriculum authorities have generally acknowledged that schooling is failing to engage a significant number of students and failing to equip all students with the knowledge, skills and attributes required to be effective citizens within a globalised economy.

The key issues for curriculum in Victoria are the degree to which a framework like the Curriculum and Standards Framework (CSF) can provide the clarity and focus necessary to ensure that all students have access to the essential learning necessary to achieve a successful transition to post compulsory education and training; and the degree to which the current two year level structure of the CSF facilitates effective assessment practice and high quality reporting of student progress.

From the analysis conducted for this report, it has been possible to identify four key elements of what might be called a 'best practice' curriculum:

- equity and inclusiveness
- the encouragement of innovation and creativity
- clarity and focus in content specification
- assessment for learning.

Based on these elements, four fundamental tests have been developed for constructing and evaluating approaches for the Victorian curriculum into the future.

Using the four key elements, a curriculum for the 21st century can be conceived as:

- knowledge based with clear specification of essential learning
- encouraging innovation through mastery of deep knowledge and a pedagogy based on students thinking their way through problems and issues;
- identifying clear standards to be achieved by all students and higher standards for those who are more able or specialising in a particular area
- including assessment procedures which are clearly linked to the essential learning, which enable achievement of standards to be demonstrated and which point the way to further productive learning.

Context

The broad endpoint sought by many of the current reform initiatives is the provision of an educational experience that prepares students to actively participate in and contribute to the current and emerging economy and to effectively respond to and engage constructively with rapid social and cultural change.

In response to perceived educational shortcomings, the Premier announced in 2000 the government's educational and training goals and targets¹. Achieving these goals and targets will be a significant challenge for educational authorities and schools. The government's goals related to major phases of education and training are:

- to improve the standards of literacy and numeracy in primary schooling.
- to increase the percentage of young people who successfully complete year 12 or the equivalent.
- for more adults to take up education and training and so increase the overall level of educational attainment and literacy levels in Victoria.
- to increase the level of participation and achievement in education and training in rural and regional Victoria and among groups where it is presently low.
- to make near-universal participation in post-school education and training the norm in our society.

These goals were accompanied by a declaration of the government's targets for educational achievement. The three benchmark targets set by the government are:

- By 2005 – Victoria will be at or above national benchmark levels for reading, writing and numeracy as they apply to primary students.
- By 2010 – 90 per cent of young people in Victoria will complete Year 12 or its equivalent.
- By 2005 – the percentage of young people aged 15 to 19 in rural and regional Victoria, engaged in education and training will increase by 6 per cent.

There has been a concerted and strategic effort to attain the government's objectives for education and training in early years, through literacy and numeracy initiatives; in the middle years, through innovation and excellence initiatives; and in the post-compulsory years, through the introduction of the Victorian Certificate of Applied Learning and several pathways initiatives.

The issue now is the degree to which the CSF adequately supports these initiatives and whether an alternative curriculum formulation might give clearer guidance to schools and teachers about the curriculum directions involved in achieving the government's goals and targets.

Reforming the Victorian Curriculum

The CSF was a useful stepping stone on the path towards clearer articulation of the Victorian curriculum after 25 years of school based curriculum and was part of a national curriculum accommodation based on the National Goals for Schooling. That accommodation was reached more than a decade ago and it is now time to look again at its usefulness and relevance. Curriculum and certification practices have moved on. Student decisions about post-compulsory pathways have changed so that past distinctions between the curriculum of the compulsory and the post-compulsory years are increasingly irrelevant.

¹Bracks, The Hon. S., Premier of Victoria, November 2000, Strategy to Improve Education Outcomes, Conference conducted by the Education Foundation.

Large numbers of students, perhaps as many as 45 per cent in Year 10 in Victoria, are now undertaking a VCE study and just as many students are undertaking vocational programs as a means of identifying the pathway most suitable for them. These changes, and the number of students who continue to drop out of formal education and training, mean that the evolution of curriculum thought and practice must continue if the Victorian curriculum is to play its part in the achievement of the government's goals and targets for education and training, and in meeting the needs of contemporary generations of Victorian young people.

The next phase in this evolutionary process should involve identifying what is essential or core in curriculum content; what minimum standards should be achieved by all students such that they are adequately prepared for the transition from compulsory school education to post-compulsory education and training; and what assessment strategies will be necessary both to assess the achievement of standards and, more importantly, to enhance further learning.

This analysis of curriculum documents from Australia and overseas has identified several examples of good practice which, when combined, can lead to a clearer and more strategic focus for the curriculum in Victoria. Pennsylvania (USA), for example, has developed and disseminated curriculum support materials which demonstrate for teachers how standards, curriculum content, assessment strategies and pedagogical approaches can be aligned to improve both the experience of schooling and learning outcomes for students. The International Baccalaureate (IB) curriculum for the primary and middle years attempts to integrate curriculum content, assessment, pedagogy, community involvement and the overall school experience into a coherent educational strategy, which encourages students' innovation and creativity based on rigorous thinking about deep knowledge.

In the UK, a major focus for many years has been both on the use of content based syllabuses to ensure that what is considered essential learning is accessed by all students and on assessments at regular stages of schooling to identify student progress. This is similar to the approach used in secondary schools in NSW. In Finland, there is a national core curriculum organised on a subject basis and assessment aims to guide and encourage study and to develop students' self-assessment skills.

From this analysis, it has been possible to identify four key elements of what might be called a 'best practice' curriculum: equity and inclusiveness; the encouragement of innovation and creativity; clarity and focus in content specification; and assessment for learning.

From these elements, four fundamental tests have been developed for constructing and evaluating the options for the Victorian curriculum into the future.

1. Equity and inclusiveness: does the curriculum enable all students to undertake and succeed in the learning necessary to make a successful transition between the various stages of schooling and to post-compulsory education and training?
2. Innovation and creativity: does the curriculum enable students to prepare to become citizens in the knowledge society and to participate productively in the economy of the 21st century? If it is the case that innovation is based in the first instance on deep knowledge and understanding, does the curriculum focus on deep knowledge or is it biased towards breadth of content coverage rather than depth of understanding in essential areas? How is ICT integrated into the curriculum as an essential area of skill and understanding in an increasingly integrated world?
3. Clarity of essential learning: does the curriculum make clear to teachers and students what is the essential learning at each stage of schooling? Does it encourage students to think about their learning, about how they best learn and how they can improve their learning in each learning area? Does it specify provide guidance on the minimum time allocation necessary to ensure coverage of the essential learning in the depth necessary for students to gain effective knowledge, skill and understanding? Does it ensure that the essential learning leaves sufficient school time available at each stage of schooling to enable schools to develop curriculum which responds to the specific needs of their student populations?

4. Assessment for learning: does the curriculum clearly identify the required standards of achievement in each area of content? Are the standards derived from the content? Are diagnostic assessment tasks provided? Do the standards identify the minimum levels of achievement for all students and higher levels of achievement for students who might specialise in a particular topic?

In other words, a curriculum for the 21st century is conceived in this report as:

- knowledge based with clear specification of essential learning
- encouraging innovation through mastery of deep knowledge and a pedagogy based on students thinking their way through problems and issues
- identifying clear standards to be achieved by all students and higher standards for those who are more able or specialising in a particular area
- including assessment procedures which are clearly linked to the content, which enable achievement of standards to be demonstrated and which point the way to further productive learning.

Summary description of national and international curriculum and standards documents

The conceptual basis of the curriculum: the organisation of knowledge

The analysis of curriculum and standards documents in fourteen jurisdictions² revealed that in almost all jurisdictions, the curriculum is conceived in one of six ways:

- as a collection of subjects based on the traditional ‘disciplines’
- as a collection of Key Learning Areas (KLAs), each including one or more subjects
- as a framework, including either subjects or KLAs or both
- as a set of standards established at various stages throughout a student’s school career, where the standards act as guide posts for students and teachers about appropriate progress in learning at particular stages of development
- as a mixture of all of the above.

The exception is the IB, which has a conceptual framework based on five essential elements: concepts, skills, attitudes, action and knowledge.

Whilst the content area differences between jurisdictions do not appear to offer any great insights into new ways of conceiving how areas of learning or discipline knowledge might be structured and labelled for schools, the particular descriptions of some content areas indicate differences in how particular learning areas are valued (see chart over page). For example, Environment and Ecology are core studies in Pennsylvania and Finland and Civics and Moral Education are core studies in Singapore, the United Kingdom and Finland.

² VCAA 2003 *Analysis of Curriculum and Standards Documents in the Compulsory Years, Phase 1: Literature Search Report*, Report commissioned by the VCAA and drafted by Cole, P., Griffiths, B., Mackay, T. and Jane, G.

Chart 2: International Examples of Curriculum Organisation

KLA	Ontario	Pennsylvania	Hong Kong	Singapore	UK	Finland	International Baccalaureate
Kindergarten Program	√						
Arts and Humanities	√	√	√/√				√
Art and Design					√		
Career Education and Work		√					
Civics/Religion/Morals/Citizenship				√	√	√	
Environment/Ecology		√				√	
Design and Technology					√		
Family/Consumer Sciences		√					
Health/Safety/Personal/PE	√	√	√	√/√	√/√	√	√
Mathematics	√	√	√	√	√	√	√
English or Mother tongue		√	√	√	√	√	√
English (second language)		√	√	√		√	
French as a Second Language	√						
Information and Communication Technology					√		
Science/Technology	√	√	√/√	√	√		√/√
Native Languages	√						
World Languages	√	√			√	√	√
History	√				√	√	
Social Studies	√			√		√	
Physics/Chemistry/Biology						√	
Geography	√				√	√	
Music				√	√	√	
Arts/Craft				√		√/√	
Home Economics						√	

√/√ indicates that two of the areas are covered

Within Australian states and territories there are only superficial differences in the way curriculum is structured as all state and territory curriculum authorities have based their local versions of curriculum on the nationally agreed KLAs arising from Hobart Declarations of National Goals for Schooling and reaffirmed in the Adelaide Declaration. Where differences tend to lie is in the degree to which references are made to generic skills, values and attributes to be developed and to the pedagogical approaches that are assumed in relation to the implementation or delivery of the intended curriculum.

In South Australia, for example, the learning areas are overlaid by five 'Essential Learnings'

1. Futures: developing perspectives to critically reflect upon and contribute to creating preferred futures
2. Identity: critically understanding and developing personal identity, group identity, and relationships, and acting to shape these
3. Interdependence: developing a sense of connectedness with other people, and systems, reflecting on and taking action to shape local and global communities
4. Thinking: developing creativity, enterprise, wisdom and the capability to evaluate and generate ideas and solutions
5. Communication: developing knowledge, skills and dispositions required to construct and deconstruct meaning, and to critically understand and use the power of communication and its technologies.

They are also connected to a series of 'equity perspectives' (Aboriginal education; socioeconomic; gender equity; rural; disabilities and impairments; SHIP and ESL) and include a focus on vocational and enterprise education, coherence and standards.

In an attempt to address calls for curriculum rigour, currency and relevance and concerns to make values and effective learning previously experienced through the 'hidden curriculum' more central to the visible curriculum, most current Australian curriculum documents are complex and hence appear difficult for schools to implement. The same can be said for most of the international curriculum documents analysed through this study.

Despite the complexity of the curriculum documents, it is rare to find a rationale for the way a curriculum is conceived in comparative terms; that is, as an argument for one form of organisation over another. Almost all jurisdictions rationalise their choice of curriculum conception in general terms related to suggested benefits for students or teachers.

For example, it is not uncommon to find statements like this one from NSW:

There are six key learning areas in the primary curriculum in New South Wales. These six key learning areas are broad groupings of subjects. Each key learning area deals with the knowledge, skills, understanding, and values and attitudes that are relevant and appropriate for primary students. Subjects are organised in this way to assist teachers in managing the scope of the primary curriculum and to ensure that students have access to a well-balanced curriculum.

At one level, it can be argued that, implicit in this sort of statement, is a rejection of other forms of curriculum organisation that might not offer the suggested benefits to students and teachers. It is a stretch to call this an explicit rationale.

Hong Kong has outlined a series of principles that have informed its curriculum structure and approach. These principles clearly enunciate the reform agenda that is being pursued through the new curriculum documents being developed in Hong Kong and provide a basis for appreciating why particular features of the curriculum are emphasised as essential.

The following guiding principles informed the curriculum design in Hong Kong³.

- Curriculum aims in line with the Aims of Education and with lifelong learning as the key vision – “Enjoy learning, enhance effective communication, develop creativity and a sense of commitment” – should be given high priority.
- A learner-focused approach should be used to make decisions in the best interests of students.
- We should respect the fact that all students have the ability to learn, though they might have their own different ways of learning. Therefore, they should be entitled to opportunities of essential learning experiences for whole person development, as well as opportunities for developing diverse potentials.
- In order to keep abreast with the development of a knowledge based society, the prescriptive “teaching/ examination syllabus” should be opened up so that it is made up of learning experiences (contents, processes, social interaction,) to help students learn more and better. Any supportive guidance in the form of curriculum guides to schools should be open to adaptation and flexible changes.
- Both the basic education and senior secondary curricula should be broad and balanced comprising different learning experiences and all KLAs in order to lay a good foundation for their future life, employment, further studies and lifelong learning.

³ <http://cd.ed.gov.hk/>

- The strategies of development should be built on the strengths of students, teachers and schools in Hong Kong and the wider educational community. Long standing practices (e.g. effective whole-class teaching) have to be valued and not to be lost. Suitable reference should be made to international and research experiences, and continuous improvement is to be made in response to these when appropriate.
- Curriculum development should be a continuous improvement process to help students learn better. Education/curriculum aims should be adjusted with time and with reference to the contexts of specific schools.
- The development of the curriculum and support mechanisms to schools should involve the participation and collaboration of government, parents and all community sectors to maximise the use of resources.
- There should be corresponding changes in assessment to complement the concerted effort to change the curriculum and promote learning.

The International Baccalaureate Middle Years Program⁴ is built on the understanding that students at this stage—early puberty to mid-adolescence—are in a particularly critical phase of personal and intellectual development. This is a time of uncertainty, sensitivity, resistance and questioning. The IB program provides them with discipline, skills and challenging standards, but also with creativity and flexibility. The IB builds its program around these considerations but it is also concerned that students develop a personal value system to guide their own lives, as thoughtful members of local communities and the larger world. Whilst on the one hand offering students a very traditional content diet, the IB program is designed so that “students develop a personal value system to guide their own lives, as thoughtful members of local communities and the larger world” and so they develop thinking, communication, social, research and self-management skills.

Whilst the IB has an emphasis on the rigour of its academic requirements, its conceptual framework based on concepts, skills, attitudes, action and knowledge appears more coherent than is generally the case. It is explicitly designed to meet the academic, social, physical, emotional and cultural needs of students. It has also attempted to integrate curriculum, pedagogy and assessment so that none of these factors is at odds with the purposes of the others.

Key Issues

Several issues emerged from the literature search conducted in Phase 1 of this project.

- Rationale and ‘best practice’ curriculum
As noted earlier, there is little in the way of comparative rationale for particular conceptual curriculum bases. Choice of construct appears to be based on a combination of history and tradition; recent research, for example the use of standards based curriculum here and in the USA; and political compromise. This suggests that there is no ‘best practice’ conceptualisation of the curriculum. Certainly, respect has to be paid to curriculum and general educational traditions when conceiving the curriculum. This leads to the second issue.
- Curriculum as advice or requirement
All jurisdictions fit somewhere along a curriculum responsibility continuum between the school and the central authority. Victoria with a CSF that has the practical status of advice, especially in independent and Catholic schools, is probably at one end of the continuum and Hong Kong and Singapore are probably at the other. The interesting thing is that all three jurisdictions are moving towards the middle in one way or another. Hong Kong

⁴ www.ibo.org

and Singapore want more responsibility at the school level. Victoria is moving towards establishing more authority centrally in order to give greater clarity at the school level.

- Degree of teaching time specification.
Jurisdictions vary in the degree of specification of minimum required teaching time appropriate to the stages of schooling. Some specify minimum time requirements, while others provide advice and guidance to teachers, but essentially leave the final decisions to schools.

The charts below illustrate how the issue of minimum guidance on teaching time is handled in the International Baccalaureate and in Queensland. Each provides for an amount of time designated for schools or systems to use as appropriate to their students needs.

Time allocation in the International Baccalaureate

Suggested Time Allocation (hours per annum)

	Years 6 & 7		Years 8, 9 & 10	
	Hours	%	Hours	%
Language A	120	14.8	120	12.3
Language B	90	11.1	90	9.3
Technology & Options*	120	14.8	120	12.3
Mathematics	108	13.3	108	11.1
Arts	65	8.0	65	6.6
Science	108	13.3	189	19.6
Humanities	108	13.3	135	13.9
Allocated Total	779	96.0	887	91.3
Free Distribution	31	4.0	85	8.7
Total	810		972	

* Subjects that are additional to those listed as IB subjects

Time allocation in the Queensland curriculum (Queensland Studies Authority)

Key learning areas	Years 1 to 3 (minimum hours across three years)	Years 4 to 7 (minimum hours across four years)	Years 8 to 10 (minimum hours across three years)
The Arts	300	400	180
English	780	640	240
Health and Physical Education*	180	240	180
Languages other than English	0	240	180
Mathematics	600	640	240
Science	180	240	180
Studies of Society and Environment	240	240	180
Technology	180	240	180
System/school designated time	120	320	840
Total	2580**	3200	2400

* The core time indicated for the Health and Physical Education key learning area does not include time for sport and recreational studies.

** In Years 1 to 3 there are an extra 180 hours available as students in these years are not involved in sport and recreational studies as are students in Years 4 to 10.

- Addressing both cognitive and personal resourcefulness domains

All jurisdictions are under pressure politically to improve student outcomes, both in terms of specific knowledge and skills and of more complex outcomes like self-esteem, connectedness, innovation and creativity. Governments, in other words, want the curriculum modernised and to be seen to be relevant to the challenges of the 21st century. Cross-curriculum priorities are often seen as the way forward in this area, but, as indicated in the examples above, are usually very generally stated and the links between these priorities and what teachers do in their classrooms is unclear. A clear understanding between what the curriculum can achieve, what school culture and ethos can achieve and what good teaching can achieve needs to be developed. There is also a need for schools to be provided with tools to enable them to measure their progress in these general areas.

- Curriculum depth and breadth

Many of the curriculum documents are based on the desire to expose students to a breadth of curriculum experiences. Very often, a broad curriculum diet is expected throughout the compulsory years, and in the Years 9 and 10 is generally further facilitated through schools providing students with access to a broad curriculum elective program. However, it is suggested that to develop competence in an area of inquiry, students must have a deep foundation of factual knowledge, understand facts and ideas in the context of a conceptual framework and organise knowledge in ways that facilitate retrieval and application.⁵

Consequently, the emphasis on breadth as a means of helping students to identify areas that interest them needs to be balanced by a commitment to teaching fewer topics in depth thereby allowing students to grasp the core and defined concepts in each area. In the same vein, assessment must focus on deep understanding rather than surface knowledge.

- Meta-cognition as a strategy for deep learning

One of the five themes or areas of interaction in the IB is concerned with meta-cognition and requires students to analyse how their learning takes place, how they know this and how they communicate their understandings. Current curriculum documents generally do not make explicit the necessary link between students' growing independence as a learner and their acquisition of meta-cognitive understanding and skills. It has been suggested that:

- (1) the teaching of meta-cognitive skills must be explicit and incorporated into the subject matter that students are learning
- (2) these strategies tend to be subject specific rather than generic
- (3) without adequate development of these skills, students are unlikely to be able to transfer understanding to new settings and events and to monitor their own learning.⁶

- Alignment between content, pedagogy and assessment

A major issue is the alignment between content, pedagogy and assessment. What has become apparent is that curriculum and assessment changes that are not also closely aligned with changes in teaching practice are unlikely to promote rich contexts for learning and the kinds of learning outcomes previously described as necessary for today's students. At the moment, jurisdictions handle this issue on the basis of advice, professional development and support materials. More needs to be done in this area and curriculum authorities probably need to take the lead by providing high quality support in the form of course outlines, lesson plans, assessment tasks and professional development for teachers.

⁵ Donovan, S. et al 2000 *How people learn: Bridging research and practice*, National Academy Press: Washington, DC. pp.12 and 16.

⁶ *ibid.* pp.17-19

- Values and attributes

The question of values and attributes is unresolved. While everyone agrees that students should leave school equipped to be good, responsible citizens, there is no clear understanding of what the school's role, let alone the curriculum's role, might be in this, especially in Australia where cultural and moral values are diverse and where agreement is difficult to achieve. The general tendency has been to overlay the curriculum with generic values outcomes that are to be achieved through cross-curricular activities or by individual teachers when teaching within their areas of curriculum expertise. The IB provides some indication of how the values and attributes it seeks to promote could be developed through the curriculum and associated required activities, but this linkage between the curriculum and generic skills or values is less apparent in curriculum documents in most other jurisdictions.

- Generic and employability skills

This is also an unresolved issue. The so-called 'Mayer competencies' were one attempt to identify what employers and educators believed were the essential skills and competencies with which students should be equipped when they leave school. In March 2002, the Australian Chamber of Commerce and Industry and the Business Council of Australia completed a report *Employability Skills for the Future* for the Commonwealth Department of Education, Science and Technology. The report identifies the skills and attributes believed necessary for young people to attain. Attributes include loyalty, commitment, honesty and integrity, enthusiasm, reliability, personal presentation, commonsense, positive self-esteem, sense of humour, balanced attitude to work and home life, ability to deal with pressure, motivation, and adaptability.

The key skills identified in conjunction with the personal attributes to make up the Employability Skills Framework are:

- communication skills that contribute to productive and harmonious relations between employees and customers
- team work skills that contribute to productive working relationships and outcomes
- problem-solving skills that contribute to productive outcomes
- initiative and enterprise skills that contribute to innovative outcomes
- planning and organising skills that contribute to long-term and short-term strategic planning
- self-management skills that contribute to employee satisfaction and growth
- earning skills that contribute to ongoing improvement and expansion in employee and company operations and outcomes
- technology skills that contribute to effective execution of tasks.⁷

Employers will argue that these skills and attributes should form integral components of the curriculum and should be the subjects of assessment and reporting. There is no evidence in the analysis conducted for this report that jurisdictions have been able to meet the wishes of employers in this regard, other than by embedding the teaching and discussion of these skills and attributes in various elements of the curriculum.

⁷ *Employability Skills for the Future* DEST. March 2002

- Key Learning Areas as the organising construct

There has been a shift away from using traditional disciplines as the basis for curriculum organisation to using organisers that incorporate connected areas of learning. Whilst in Australia this shift began with the national Curriculum Statements and Profiles initiative under Commonwealth Minister John Dawkins in the late 1980s and early 1990s, it is also present in several overseas jurisdictions. This trend is most noticeable in relation to the humanities where, for example, the traditional disciplines of geography and history are subsumed into more generic social studies or studies of society categories. Wilson⁸ argues that “the conceptual inadequacy and practical difficulties of some learning areas ...leads to the burial of key content and skill areas within broader categories’ and are an obstruction to deep learning”.

Wilson’s is, of course, a contested view. The ‘New Basics’ research program in Queensland is, in one sense, a reaction against both the KLAs and the disciplines of the liberal intellectual tradition. The ‘New Basics’ attempts to turn the basis of the curriculum around and identify key integrating constructs such as “Life pathways and social futures” as the main ways of organising knowledge. It remains to be seen how the research program turns out. Attempts to integrate knowledge across the curriculum are not new: the ‘Integrated Studies’ initiatives of the 1970s represented a similar approach.

One of the key challenges facing the ‘New Basics’ and similar approaches appears to lie in the intellectual habits, training and practices of teachers, particularly secondary teachers, who have by and large continued to teach Science, History, Geography and English whatever names central authorities have given to these subjects from time to time. System authorities are likely to face dramatic increases in teacher-driven demands for professional development and reduced teaching time arising from any large scale attempt to implement a ‘New Basics’ style curriculum.

- Stages of schooling

Most jurisdictions have framed their curriculum documents to match perceived stages in schooling. The curriculum arrangements in middle years of schooling (generally, though not always, defined as the final two years of primary education and the years of secondary education preceding formalised external senior certificate examinations) has been a focus of concern nationally and internationally. It appears that jurisdictions have a relatively clearer sense of curriculum purpose in the early (foundation) years and the senior years.

- Years 9 and 10 as a particular concern

School level data show a marked decline in satisfaction as students progress through the middle years of schooling, with years 9 and 10 students exhibiting the most significant dissatisfaction levels.⁹ Students in these years also tend to exhibit the highest levels of truancy.¹⁰

The concern with a declining sense of connectedness to schooling has prompted several responses from schools. Some have established teaching teams based in the middle years to design integrated and applied learning experiences. Others have established Year 9 as a phase in schooling where students experience learning environments and activities that promote their sense of personal well-being and build desired personal attributes and skills such as resilience, flexibility, teamwork and independence. Sometimes the regular curriculum is abandoned and replaced by a curriculum designed around a special setting (e.g. an extended country camp or relocation to a city campus).

⁸ Wilson, B. 2002 *Curriculum – is less more?* Paper presented to the Curriculum Corporation Conference, Canberra

⁹ Hill, P, et al 1996 *The Victorian quality Schools Project: A study of school and teacher effectiveness*, CAER, Faculty of Education, the University of Melbourne; and Russell, J. et al 2003 *Messages from MYRAD: Improving the middle years of schooling*, Jolimont; IARTV

¹⁰ Ainley, J. and Lonsdale, M. 2000 *Non-attendance at school*, Camberwell: ACER

There is also a growing pattern for students in Year 10 to commence senior curriculum units of study (more than 40% of Year 10 students undertake at least one VCE unit in Year 10). This is the case both in relation to VET/VCE units that contain practical and community-based components of learning and to the more 'academic' VCE units, which students in Year 10 undertake to give themselves more options in Years 11 and 12.

This tendency suggests that Years 9 and 10 CSF outcomes are not perceived to be meeting the needs of a significant number of students and that the influence of the CSF on the curriculum offered at these year levels is not strong. It also suggests that the range of abilities, interests, values and responses to schooling in the Years 9 and 10 cohorts is wide and varied. Any curriculum strategies designed to address a lack of connectedness to schooling in these years will need to be flexible, clear and enable schools to see how they might respond to the diversity in their student populations.

In summary, it can be argued that the current ways in which many curriculum authorities have conceived the curriculum for schools has resulted in poor definitions of expected and essential learning and provides teachers with insufficient guidance about what to teach. It has been suggested that 'as our current documents stand, teachers could find a basis for teaching everything they know' as 'there are few priorities set, effectively little essential learning identified and few discriminations made about which bits matter for young Australians to learn'.¹¹

Furthermore, it appears that students most acutely feel this lack of a clear purpose or focus in the middle years of secondary schooling. It is also in the middle years of schooling that current schooling structures and classroom practices appear to be contributing to rather than ameliorating many students' negative feelings about their own worthiness and about the value of their continued involvement in schooling.

Finally, it is also apparent that more robust system-driven strategies are required for bridging the gaps between the written/intended curriculum, the taught/experienced curriculum, the attained curriculum (i.e. the actual understandings and skills that students acquire) and the assessed curriculum. Currently, Victorian quality assurance processes as they relate to curriculum development and pedagogy are not directly focused on these means for learning but on the outcomes of learning. Consequently, whilst poor student performance might be readily identified, what might need to be done to remedy poor student performance is contested and often a matter of broad speculation and guesswork.

Conclusion

Research undertaken for this project indicates that guidance about what needs to be taught and learnt needs to be closely aligned with guidance about how this learning will be best promoted. Equally, in thinking about approaches for the Victorian curriculum for the next decade, it is important to identify what formal curriculum frameworks can achieve and what they cannot.

Curriculum frameworks can:

- clarify what is considered the core or essential learning, in terms of knowledge, skills and understandings, all Victorian students should be able to demonstrate as they enter the post-compulsory years
- provide opportunities to explore both common and competing value positions in a democratic society in the 21st century

¹¹ Wilson, B. 2002 *Curriculum – is less more?* Paper presented to the Curriculum Corporation Conference, Canberra

- identify the range of assessment instruments and approaches which is consistent with the curriculum objectives and is likely both to identify opportunities for improved learning for students and to assist teachers to tailor their programs to individual student learning needs
- provide advice and exemplary materials to assist teachers to plan and deliver courses of study, units of work and individual lessons to encourage the use of the most productive teaching strategies currently known
- provide examples of the type of work students should do in order to ensure they acquire the necessary skills, knowledge and understanding.

The formal curriculum cannot guarantee good teaching or effective school organisation. It cannot, by itself, overcome disadvantages of background, disability or geography, improve student welfare or guarantee appropriate behaviour in the classroom. These are matters for individual schools and teachers within the framework provided by legislation, regulation and the policies of government. Nevertheless, a curriculum which

- is forward looking
- is based on the best of contemporary knowledge
- is referenced to an appropriate structure of knowledge
- is explicit about minimum and advanced standards of learning
- encourages creativity and innovation
- guarantees to all students, as a minimum, access to the essential learning, understandings and skills necessary for success in today's society can be a powerful force for better learning and improved outcomes.

This report is intended as a contribution to the ongoing debate about curriculum, a debate that is being conducted not only in Victoria but also around Australia and throughout the OECD. The report is based on an analysis of directions in curriculum development around the world and raises the key issues with which all jurisdictions are grappling.

While it is a cliché to say that there are no simple answers, it is the case that none appear to have been found to date. For that reason, this report has identified four fundamental tests for constructing and evaluating the options for the Victorian curriculum into the future.

1. Equity and inclusiveness
2. Innovation and creativity
3. Clarity of content
4. Assessment for learning

Clearly any future reforms will also need to take account of an understanding of:

- the history and traditions of curriculum development in Victoria
- the nature of a curriculum most likely to enable students in Victoria to respond to the challenges and take advantage of the opportunities available in an increasingly integrated, knowledge-based economy.

It is, of course, unrealistic to expect that curriculum reform can resolve all the issues and challenges in Victorian education. The curriculum can, however, play a vital role in clarifying the community's understanding of what is important for students to learn, what skills students need to develop and what overall understandings they need to gain in order to have the best chance to succeed in both a vocational and personal sense. It can help in developing in all students a respect for learning and the habits of thought necessary to become lifelong learners, no matter what walk of life they pursue.

Appendix 1: Summary of the curriculum structures and frameworks of 14 educational jurisdictions

Ontario, Canada

References:

Ontario Ministry of Education, Ministry of Training, Colleges and Universities
(www.edu.gov.on.ca/)

Curriculum Services Canada (www.curriculum.org/)

York District School Board (www.yrdsb.edu.on.ca/)

In Ontario, publicly funded elementary and secondary schools are administered by district school boards that adapt provincial education policy to local situations. Private schools also provide elementary and secondary education. They are independently operated and do not receive funding from the government.

Elementary schools provide Junior Kindergarten and Kindergarten programs (for children aged 4 and 5) and programs for grades 1 through 8. Secondary schools currently offer programs from Grade 9 through to Grade 12, as well as Ontario Academic Courses (OACs).

To receive an Ontario Secondary School Diploma, students need to complete at least thirty credits in secondary school (one credit is normally one course). Students planning to attend university can include the required six Ontario Academic Courses in these thirty credits.

1. Curriculum content

The Elementary Curriculum is described in nine learning areas:

- The Arts, Grades 1–8
- Health and Physical Science, Grades 1–8
- Language, Grades 1–8
- Native Languages, Grades 1–8
- Social Studies, Grades 1–6, History and Geography Grades 7–8
- French as a Second Language 1–8
- The Kindergarten Program
- Mathematics, Grades 1–8
- Science and Technology, Grades 1–8

The Grades 9–10 curriculum is described in fourteen learning areas:

- The Arts
- Canadian and World Studies
- English
- Guidance and Career Education
- Mathematics
- Native Studies
- Social Sciences
- Business Studies
- Classical and International Languages
- French As a Second Language
- Health and Physical Education
- Native Languages
- Science
- Technological Education

Skills are described for each grade by KLA – Strand.

The Ontario Curriculum, Grades 1–8: 1997 has two elements: expectations and achievement levels. The expectations identified for each grade describe the knowledge and skills that students are expected to develop and to demonstrate in their class work, on tests, and in various other activities on which their achievement is assessed.

In Years 9 and 10 the combination of compulsory and optional courses is designed to provide all students with the essential knowledge and skills they will need to function effectively in any

area of activity, as well as the opportunities to acquire the specialised knowledge and skills they will need to succeed in their chosen post-secondary endeavours.

The Ontario Curriculum does not specify attributes or values underpinning the curriculum.

2. Other organising constructs

Teachers use their professional judgment in deciding which instructional methods will best foster the learning described in the expectations.

All Grade 9 courses build on the Grade 8 curriculum. All students are required to take the same type of course, called an open course. In the core subjects, however, students are able to choose between two different types of courses – academic and applied. Academic and applied courses give students the opportunity to experience two different ways of learning: academic courses draw more heavily on theory and abstract examples and problems, while applied courses focus more on practical applications and concrete examples

Time allocations for each of the studies are not specified in curriculum documents.

3. Standards

See Assessment.

4. Assessment

The achievement levels are brief descriptions of four different degrees of achievement of the provincial curriculum expectations for any given grade. These descriptions, which are used along with more traditional indicators like letter grades and percentage marks, are among a number of tools that teachers will use to assess students' learning.

Level 1 identifies achievement that falls much below the provincial standard. Level 2 identifies achievement that approaches the standard. Level 3, which is the “provincial standard”, identifies a high level of achievement of the provincial expectations. Level 4 identifies achievement that surpasses the standard. It should be noted that achievement at level 4 does not mean that the student has achieved expectations beyond those specified for a particular grade; it indicates that the student demonstrates a greater command of the required knowledge and skills than a student achieving at level 3.

5. Support materials

The teaching profession in Ontario is supported by a number of programs including: the Ontario Teacher Qualifying Test, the Professional Learning Program, Teacher Performance Appraisals and the Support for Schools That Need Extra Help Program.

The Professional Learning Program provides a consistent province-wide framework that guarantees that Ontario teachers have a minimum level of upgrading in key topics, such as student assessment and the use of technology.

Province-wide teacher performance appraisal standards ensure that Ontario teachers are evaluated on their ability to use their skills and knowledge effectively in the classroom. A consistent province-wide performance appraisal system supports teachers in their professional development and promotes effective teaching to enhance student learning and achievement.

Curriculum Services Canada is the Pan-Canadian standards agency for learning resources. It provides services and training in learning resource evaluation, development, and implementation.

The Ontario Ministry of Education website publishes curriculum exemplars for each KLA.

Finland

References:

National Board of Education, Finland (www.edu.fi and www.oph.fi/)

The Information Network on Education in Europe (www.eurydice.org/Eurybase/Application/frameset.asp?country=FI&language=EN)

Nordic Council and Council of Ministers (www.norden.org)

The scope of the basic education syllabus is nine years (Years 1–9), and compulsory education ends no later than ten years after the beginning of compulsory education. Comprehensive schools provide for the compulsory years. Upon completion of basic education, a young person can continue studying (Upper Secondary schools Years 10–12) or enter working life. If schooling is continued, a choice is usually made between general upper secondary school and vocational education and training.

1. Curriculum content

In Forms 1–9 knowledge is organised into the following subject areas, but not all subjects are offered at all year levels and at some stages subjects are combined:

- mother tongue and literature
- foreign languages (Optional study)
- civics
- history
- mathematics
- chemistry
- geography
- music
- craft
- the other national language (Swedish/Finnish)
- environmental studies
- religion or ethics
- social studies
- physics
- biology,
- physical education
- visual arts
- home economics.

The general aims of the comprehensive school are to develop the students' ability to:

- think many-sided
- take responsibility for their own actions
- process information
- cooperate
- gather information
- work independently

Information pertaining to outcome statements was not available

No generic or overarching attributes and values are nominated as being core-learning requirements.

The Years 1–9 curriculum encompasses inter-curricular issues which must be taught in different subjects and which play a role in other schoolwork as well. The following issues are mentioned and described as examples:

- International education
- Traffic education
- Health education
- Communication education
- Entrepreneurship education
- Consumer education
- Family education
- Information technology skills
- Environmental education

2. Other organising constructs

The education providers, usually the local education authorities and the schools themselves draw up their own curricula for basic education within the framework of the national core curriculum. The choice of specific content and the method of instruction is a local decision.

Pedagogy is a matter for local school decision. The national core curriculum emphasises the individuality, options and flexibility of instruction.

The scope of subjects is outlined in weekly lessons per year. One weekly lesson per year consists of 38 lessons, of which at least 45 minutes per (one-hour) lesson should be dedicated to instruction.

In the first six years of basic education (primary level) the minimum number of weekly lessons per year for the common subjects is 132. The 70 weekly lessons per year for Years 7–9 are the total minimum for the last three years of basic education (lower secondary level). The local authority or the school may decide on the allocation of lessons for each year as well as their allocation to different forms when planning their curricula.

Forms 1–6 Subjects and Minimum weekly lessons p.a.		Forms 7–9 Subjects and Minimum weekly lessons p.a.	
Mother tongue and lit (Finnish/Swedish)	32	Mother tongue and lit (Finnish/Swedish)	8
Other national language or foreign language	8	Language started at primary level	8
Mathematics	22	New language starting at lower secondary	6
Biology, Geography, Environmental Studies and Civics	15	Mathematics	9
Religion/Ethics	8	Biology, Geography	7
History	3	Physics, Chemistry	6
Arts and practical subjects	44	Religion/Ethics	3
Music	6	History, Civics	6
Visual arts	6	Music	1
Craft	8	Visual arts	2
Physical education	12	Home economics	3
Common subjects, total minimum	132	Craft	3
Optional language	4	Physical education	6
		Pupil counselling	2
		Common subjects, total minimum	70
		Elective subjects, total maximum	20

(Note: A new time allocation will be adopted together with a new national core curriculum that is to be introduced no later than August 2006. The subjects in basic education have been grouped and times devoted to subjects will vary according to year levels – e.g. Years 1–2, 3–5 and 6–9 or Years 1–4, 5–6 and 7–9. Details of the planned new core curriculum are provided on the Eurydice database website.)

3. Standards

No information on standards was available on Finland's education websites. However, the National Board of Education issues national criteria for pupil assessment.

4. Assessment

Pupil assessment takes the form of continuous assessment and final assessment of basic education. It is on the basis of final assessments that pupils are selected for further studies when they leave comprehensive school. This final assessment is nationally comparable and is based on the objectives of basic education. Recommended final assessment criteria have been prepared for the intermediate grade (8) in all common subjects.

In the first seven forms of comprehensive school, assessment may be either verbal or numerical. Later the assessment must be numerical, but it may be complemented with a verbal

assessment. The scale of grades used in assessment is 4–10, where 4 is fail, 5 is fair, 6 passable, 7 satisfactory, 8 good, 9 very good and 10 shows excellent knowledge and skills. The relevant subject teacher carries out the assessment. Pupils are given reports at the end of each school year; in addition, pupils may be given one or more intermediate reports.

It appears that there are no formal national testing programs.

5. Support materials

The National Board of Education produces some learning materials; however, details of these resources were not available.

Hong Kong

References:

- Curriculum Development Institute (<http://cd.ed.gov.hk>)
- Curriculum Development Council (<http://cd.emb.gov.hk/cdc/en/>)
- Education and Manpower Bureau (www.emb.gov.hk/index.asp)

Hong Kong is in the process of reforming its curriculum. The overarching principle of the curriculum reforms is to help students learn to learn. To achieve this objective:

- school subjects are grouped into Key Learning Areas thus encouraging more integrated approaches to curriculum development and a focus on generic skills
- assessment for learning is promoted rather than summative assessment in the form of tests and examinations
- four cross-curriculum perspectives are identified to support student growth and development as citizens and as learners (moral and civic education, reading, project learning and using information technology) and the focus is to be on learners and their needs.

Primary schooling is undertaken in Years 1–6 and Years 7–9 are lower secondary years (Years 1–9 are free and compulsory).

1. Curriculum content

Hong Kong considers that all students should be entitled to the following five essential learning experiences:

- moral and civic education – developing personal character and interpersonal skills, respect for others, perseverance and national identity
- intellectual development laying a firm foundation of knowledge and enjoyment in learning
- community service – developing commitment and responsibility
- physical and aesthetic development leading to healthy living styles and appreciating aesthetic qualities
- career-related experiences linking studies with career aspirations and job opportunities.

These essential learning experiences are to be developed throughout all stages of schooling, except for career-related experiences that are more appropriately developed in senior secondary education. In order to provide the above learning experiences to students, a curriculum framework is developed as the basic structure for defining broadly the aims and elements of learning such as knowledge/concepts, skills, values and attitudes.

The curriculum framework is made up of three components, namely:

- key learning areas
- generic skills
- values and attitudes.

Knowledge is organised into the following key learning areas:

- Chinese Language education
- English language education
- Mathematics education
- Science education
- Technology education
- Personal, Social and Humanities Education
- Arts education
- Physical education.

Note that in the primary curriculum General Studies integrates Science education, Technology education and Personal, Social and Humanities education. Generic skills to be promoted through the KLAs include:

communication	critical thinking	creativity	problem-solving
collaboration	information technology	numeracy	self-management

Key Tasks to be undertaken are:

- moral and civic education
- project learning
- reading to learn
- IT for interactive learning

Life-wide learning (connecting the formal and informal curriculum) is also a feature of the Hong Kong curriculum. Life-wide learning refers to the learning experiences that take place beyond the classroom.

Hong Kong has developed general KLA outcomes statements but consider that these are not sufficient for guiding student learning and teaching and for assessment purposes. It plans to develop more subject-specific learning outcomes over the next few years.

Hong Kong wishes to develop the following values and attributes:

- perseverance
- national identity
- respect for others
- commitment
- responsibility
- others

Cross curriculum themes that are to be promoted through various KLAs include:

- values education
- sex and family education
- moral & civic education
- health education
- chinese history and culture
- environmental education

2. Other organising constructs

Changing the pedagogy to make it more consistent with the objectives and intentions of the new curriculum reforms is a priority task of the Hong Kong Government. In general it is considered that the following transitions need to be accomplished:

- shifting from transmission of knowledge to learning how to learn
- shifting from overemphasis on academic studies to focusing on whole-person development
- shifting from compartmentalised subjects to integrated learning
- shifting the focus from textbooks to diversified learning and teaching materials
- shifting from the confines of the classroom and embracing communitybased learning
- shifting from traditional timetabling to an integrated and flexible arrangement of learning time
- shifting from premature streaming to providing students with more opportunities to explore their aptitudes and potential.

A suggested percentage of lesson time allocation to KLAs is provided and it is also recommended that between 10–19 per cent of time is available for local curriculum flexibility to meet local needs (e.g. activities programs for remedial or enrichment purposes, cross-curricular activities, promoting reading, etc.). Suggested P-6 KLA time allocations that vary depending on the stage of schooling are as follows:

Chinese language	25–30%
English language	17–22%
Mathematics	12–15%
Science; Technology; Personal, Social and Humanities (General Studies)	12–15%
Arts (Art and craft, music)	10–15%
Physical Education	5–8%

3. Standards

Standards have not been determined as yet and are driven by what the examination tests and how exam responses are marked.

4. Assessment

Assessments in the form of formal examinations are conducted at all levels of schooling in all subjects by the examination authority and have been based on examination syllabuses developed by the examination authority. Examinations tend to test recall and generally consist of a multiple-choice section (perhaps worth around 60 per cent of the exam score) and could also include short essays. Student reporting is largely confined to reporting examination scores in subject areas. Descriptive reporting or reporting against outcomes is not a feature of the Hong Kong reporting process.

5. Support materials

Hong Kong has developed a range of documents to support curriculum reform. These include exemplars of curriculum development in schools, curriculum guides and learning and teaching resources (e.g. teaching kits, videotapes, CD ROMs and booklets). A variety of professional development programs will be provided on the new curriculum and student teachers will also be assisted to learn the new approaches.

A range of collaborative research and development projects on key curriculum changes will be conducted in partnership with schools and consultants/universities. Schools and teachers will be networked to facilitate the dissemination of good practices and local and international experts will be invited to advise on development strategies. In addition, greater autonomy and flexibility will be given to schools in funding, management and staffing, in order to create more time and space for curriculum change and improving learning and teaching.

International Baccalaureate Organisation

Reference: International Baccalaureate Organisation (www.ibo.org)

An International Baccalaureate (IB) program is available for primary school (students aged 3 to 12), middle school (students aged 11 to 16) and senior school students.

1. Curriculum content

The Primary Years Program incorporates five essential elements: Concepts, Skills, Attitudes, Action and Knowledge. The first four – concepts, skills, attitudes and actions – are relevant in and across all subject areas and provide the framework for structured and purposeful inquiry. The fifth element is knowledge, which is considered to be a holistic understanding of ideas, not merely the acquisition of facts and skills.

The Middle Years Program provides students with discipline, skills, challenging standards, creativity and flexibility and supports students to develop a personal value system to guide their own lives.

The Primary Years Program identifies a body of knowledge in six subject areas:

- Two Languages
- Social Studies
- Personal, Social and PE
- Mathematics
- Science and Technology
- Arts

It seeks to promote an understanding of the following eight fundamental concepts:

- | | |
|--|---|
| Form: What is it like? | Function: How does it work? |
| Causation: Why is it like it is? | Change: How is it changing? |
| Connection: How is it connected to other things? | Perspective: What are the points of view? |
| Responsibility: What is our responsibility? | Reflection: How do we know? |

The Middle Years Program identifies a body of knowledge in eight subject areas, through interdisciplinary teaching and projects, whole school activities and a MYP personal project. The eight subject areas are:

- Language A
- Language B
- Humanities: history and geography
- Technology: computer and design technology
- Mathematics
- Arts: visual arts and performing arts
- Sciences: biology, chemistry, physics
- Physical Education

Skills to be developed in the PYP are: Thinking, Communication, Research, Self management and Social.

The outcomes sought by the IB programs include knowledge, concepts, skills, values and actions. The IB program is designed to develop the following attributes or characteristics.

- tolerance
- respect
- integrity
- independence
- enthusiasm
- empathy
- curiosity
- creativity
- cooperation
- confidence
- commitment
- appreciation

The Primary Years Program defines the characteristics of students who are aware of and sensitive to the experiences of others. Ten characteristics are described.

- inquirers
- thinkers
- communicators
- risk takers
- knowledgeable
- principled
- caring
- open-minded
- well-balanced
- reflective

In the Primary Years Program six trans-disciplinary themes are also used to frame learning:

Who we are	Where we are in place and time	How we express ourselves
How the world works	How we organise ourselves	Sharing the planet

At the centre of the MYP curriculum are five themes or areas of interaction:

- Approaches to Learning – How do I learn best? How do I know?
- Community and Service – How do we live in relation to each other? How can I help others?
- Homo Faber – Why and how do we create? What are the consequences?
- Environment – Where do we live? What resources do we have or need?
- Health and Social Education – How do I think and act? How can I look after myself and others?

2. Other organising constructs

Pedagogy is a matter for local (district) decision, but is informed by the IB's emphasis on structured inquiry. Although schools largely determine provision arrangements, the IBO provides a suggested time allocation.

	Years 6 & 7		Years 8, 9 & 10	
	Hours	%	Hours	%
Language A	120	14.8	120	12.3
Language B	90	11.1	90	9.3
Technology & Options*	120	14.8	120	12.3
Mathematics	108	13.3	108	11.1
Arts	65	8.0	65	6.6
Science	108	13.3	189	19.6
Humanities	108	13.3	135	13.9
Allocated Total	779	96.0	887	91.3
Free Distribution	31	4.0	85	8.7
Total	810		972	

* Subjects that are additional to those listed as IB subjects.

3. Standards

The International Baccalaureate Organisation validates the standards of the authorised school's assessment through a process of external moderation.

4. Assessment

In the Primary Years Program teachers and students from the school assess student work. Individual portfolios of student achievement are kept and students in the final year of the program are expected to participate in a culminating project, the PYP exhibition. In the Middle Years Program teachers assess student work with guidance from the IBO according to prescribed published criteria and using a variety of assessment tools. Student's accomplishments are recorded by the school in a portfolio of achievement.

5. Support materials

The IBO provides a wide range of services to schools, including conferences and teacher training workshops, publications, online materials. Teams appointed by the IBO carry out on-site evaluations that assess the effectiveness of the delivery of the MYP at a school. The evaluation process does not assess individual teachers or students.

Singapore

References:

Ministry of Education (www.moe.gov.sg)

GCE 'N' Level Examination Subjects (www.moe.edu.sg/exams/html/subjects.htm)

Primary education consists of a four-year Foundation Stage from Primary 1 to 4 and a two-year Orientation Stage from Primary 5 to 6. Pupils are formally streamed according to their learning ability at the end of Foundation Year 4. All pupils then advance to the next stage of primary education, the Orientation Stage. At the Orientation Stage, pupils are placed in one of three language streams according to their abilities.

At the end of Year 6, pupils sit for the Primary School Leaving Examination (PSLE) that assesses their abilities for placement in a secondary school course that suits their learning pace and aptitude. Pupils who obtain the necessary standards are then admitted to one of three streams in secondary school: Special, Express or Normal. The majority of pupils undergo the Special course or Express course while the rest enter the Normal course.

1. Curriculum content

In the Foundation Stage (Years 1–4), knowledge is organised into the following areas:

- English Language
- Mathematics
- Social Studies
- Music
- Physical Education
- Mother Tongue (Chinese, Malay or Tamil)
- Civics & Moral Education
- Art & Crafts
- Health Education
- Science (which is introduced at Year 3)

On average over the 4 years, the time allotted to subjects is as follows:

32% English language 26% mother tongue 20% mathematics 22% other subjects

In the Orientation Stage (Years 5–6) streams EM1 and EM2, knowledge is organised into the following areas:

- English Language
- Civics & Moral Education
- Music
- Science
- Mother Tongue
- Social Studies
- Health Education
- Mathematics
- Art & Crafts
- Physical Education

In the secondary Special course knowledge is organised into the following areas:

Special / Express Courses	Subjects Available
4-year course leading to Singapore-Cambridge General Certificate of Education (GCE 'O' Level)	
Secondary 1 & 2 (Common Curriculum)	English Language, Mother Tongue, Mathematics, Science, History, Geography, Literature, Visual Arts, Design & Technology, Home Economics, Civics & Moral Education, Music and Physical Education Third Language – German, French, Japanese and Malay (Special Program) for pupils in top 10% of the PSLE cohort
Secondary 3 & 4 (Core Curriculum)	English Language, Mother Tongue, Mathematics, Combined Humanities, a Science subject, Music, Civics & Moral Education, Physical Education and 2 – 4 Electives
Special Course	Mother Tongue: Higher Malay/Higher Chinese/Higher Tamil (Sec 1 to 4)
Electives	Additional Mathematics, Literature in English, Geography, History, Biology, Physics, Chemistry, Combined Sciences options, Additional Language options (French/Japanese/German/Malay [Special Program]), Art & Design, Music, Food & Nutrition, Commerce, Principles of Accounts, Design & Technology, Religious Knowledge options.

Subject syllabuses specify skills (values and knowledge) to be taught and learned.

Outcomes are described in the following generic terms.

At the end of primary school, pupils should:	At the end of secondary school, students should	At the end of junior college, students should
<ul style="list-style-type: none"> • be able to distinguish right from wrong • have learnt to share and put others first • be able to build friendships with others • have a lively curiosity about things • be able to think for and express themselves • take pride in their work • have cultivated healthy habits • love Singapore 	<ol style="list-style-type: none"> 1. have moral integrity 2. have care and concern for others 3. be able to work in teams and value every contribution 4. be enterprising and innovative 5. possess a broad-based foundation for further education 6. believe in their ability 7. have an appreciation for aesthetics 8. know and believe in Singapore 	<ul style="list-style-type: none"> • be resilient and resolute • have a sound sense of social responsibility • understand what it takes to inspire and motivate others • have an entrepreneurial and creative spirit • be able to think independently and creatively • strive for excellence • have a zest for life • understand what it takes to lead Singapore

Outcomes are also specified in subject syllabuses. The learning Outcomes are the expected attainment targets for pupils at the end of each two-year period.

Values and moral education is a core part of the curriculum and is taught as a subject throughout primary and secondary schooling.

Cross-curriculum concepts do not appear to feature in the Singapore system.

2. Other organising constructs

Subject syllabuses contain information about the principles of teaching and learning underpinning the course.

3. Standards

Standards are specified through the description of outcomes expected in all subjects at two-yearly intervals as a child progresses through schooling.

4. Assessment

The state conducts assessments at the end of Year 6, when pupils sit for the Primary School Leaving Examination (PSLE) that assesses students in EM1 and EM2 streams in English, mother tongue, mathematics and science. Students in the EM3 stream do not get assessed in Science. At the end of Year 10, students in the Special and Express courses sit the Singapore-Cambridge General Certificate of Education (GCE) 'O' level examination and those in the Normal (technical or Academic) courses sit the GCE 'N' level examination with a 5th year leading to the GCE 'O' level examination.

Syllabuses contain information for teachers about assessment approaches as well as outlining some sample assessment tasks. Guidelines for school-based assessment at the various levels in all subjects are provided to teachers.

5. Support materials

Each course has a published (exam) syllabus and a subject syllabus that incorporates initiatives on Thinking Skills, Information Technology and National Education.

The Singapore Edu. Library is a repository of teaching and learning resources such as software, Internet sites, and videos. Useful websites for learning are also recommended.

United Kingdom

References:

- How the National Curriculum Works (www.nc.uk.net)
- Department for Education and Skills (www.dfes.gov.uk/index.htm)
- Office for standards in education (www.ofsted.gov.uk/)

Primary schooling is generally organised from Reception or Years 1–6 and secondary schools generally offer Years 7–13. The statutory school age in England and Wales is from five to 16 years. Four Key stages of the curriculum cover Years 1–11.

School curriculum, pupil assessment and qualifications are the responsibility of the Qualifications and Curriculum Authority (QCA).

1. Curriculum content

The National Curriculum embodies four general teaching requirements that apply across the programs of study. These are:

- promoting spiritual, moral, social and cultural development promoting personal, social and health education
- promoting skills – such as communication, number, information technology, working with others, improving own learning and performance, thinking skills
- promoting other aspects of the school curriculum – financial capability, enterprise and entrepreneurial skills, work-related learning, education for a sustainable development.

The National Curriculum is made up of twelve areas of learning:

- Art & Design
- English
- ICT
- Music
- Science
- Citizenship.
- Geography
- Mathematics
- Personal, Social & Health Ed
- Design & Technology
- History
- Foreign Languages
- Physical Education

The following are the values underpinning the curriculum:

- The self – We value ourselves as unique human beings capable of spiritual, moral, intellectual and physical growth and development.
- Relationships – We value others for themselves, not only for what they have or what they can do for us. We value relationships as fundamental to the development and fulfilment of ourselves and others, and to the good of the community.
- Society – We value truth, freedom, justice, human rights, the rule of law and collective effort for the common good. In particular, we value families as sources of love and support for all their members, and as the basis of a society in which people care for others.
- The environment – We value the environment, both natural and shaped by humanity, as the basis of life and a source of wonder and inspiration.

2. Other organising constructs

	Key Stage 1	Key Stage 2	Key Stage 3	Key Stage 4
Age	5–7 years old	7–11	11–14	14–16
School year level	Years 1–2	3–6	7–9	10–11

Schools have some discretion over when to start teaching the key stage programs of study. The law requires that they should be taught during the key stage, not that they be introduced at a particular time.

The statutory curriculum framework of twelve study areas is supplemented by a non-statutory framework. Careers Education, Religious Education and Sex Education must also be taught.

Programs of study set out the knowledge, skills and understanding and the breadth of study requirements as two distinct parts. A rationale sets out the values and purposes underpinning the school curriculum, the aims for the school curriculum and lists the four main purposes of the national curriculum:

- to establish an entitlement
- to establish standards
- to promote continuity and coherence
- to promote public understanding.

3. Standards

For each study and for each key stage, programs of study set out what pupils should be taught, and attainment targets set out the expected standards of pupils' performance. Schools choose how they organise their school curriculum to include the statutory programs of study.

4. Assessment

The attainment targets in KLAs set out the knowledge, skills and understanding that pupils of different abilities and maturities are expected to have by the end of each key stage. Attainment targets consist of eight level descriptions of increasing difficulty, plus a description of exceptional performance above level 8. Each level description describes the type and range of performance that pupils working at that level should characteristically demonstrate.

The level descriptions provide the basis for making judgments about pupils' performance at the end of key stages 1, 2 and 3. The majority of pupils are expected to work at:

- levels 1–3 in key stage 1 and attain level 2 at the end of the key stage
- levels 2–5 in key stage 2 and attain level 4 at the end of the key stage
- levels 3–7 in key stage 3 and attain level 5/6 at the end of the key stage.

By indicating expectations at particular levels and progression in the subjects, the level descriptions can also inform planning, teaching and assessment.

5. Support materials

The *How the National Curriculum Works* website uses pupils' work and case study material to show what the National Curriculum looks like in practice.

The examples given show:

- the standard of pupils' work at different ages and key stages
- how the programmes of study translate into real activities.

These examples come from different pupils, contexts and schools

They include:

- pupils' accounts of classroom activities
- pupils' responses to structured tasks and questions
- accounts of open-ended investigations.

For each piece of work there are:

Activity objectives: these set out the purpose, teaching and learning objectives of the work.

Activity description: this provides details of what the pupil actually did. It also describes the context, the level of support provided and the extent to which the activity was structured.

Commentary: this explains why the piece of work:

- shows a pupil's performance in relation to a particular level description and/or
- is a good example of the programme of study in practice.

Pennsylvania, USA

References:

- PA State Standards (www.pastatestandards.org/default.htm)
- PA State Standards – L–12 Benchmarks (www.pastatestandards.org/benchmarks/default.htm)
- PA State Standards – Lesson Plans (www.pastatestandards.org/curriculum/index.htm)
- PA Department of Education- Classroom Connections Resource Materials (www.pde.state.pa.us/a_and_t/cwp/view.asp?a=108&Q=81070&PM=1)

Education in Pennsylvania is governed by the 1999 state regulation Chapter 4 that outlines:

- the purpose of public education
- academic standards
- requirements for strategic planning;
- requirements for instruction
- graduation requirements
- seals of proficiency and distinction for high school diplomas
- profiles for school performance
- state and district responsibilities for assessment
- the provisions for students in other than public schools.

The delivery of education within the state is the responsibility of school districts.

Presently four initiatives are being pursued:

1. accelerated learning in literacy and numeracy
2. improving the alignment of accountability arrangements at the State, District and school levels
3. improving Support Services to districts
4. providing clearer advice to schools on core requirements of schools when selecting curriculum.

1. Curriculum content

The curriculum is conceived as a framework of standards that describe what students should know and be able to do by the end of fourth, seventh, tenth and twelfth grade. In addition, these standards reflect the increasing complexity and sophistication that students are expected to achieve as they progress through school.

Knowledge is organised into the following areas:

- Arts and Humanities
- Environment/Ecology
- Health, Safety and Physical Education
- Reading, Writing, Speaking, Listening
- World Languages.
- Career Education and Work
- Family/Consumer Sciences
- Mathematics
- Science/Technology

Knowledge and skills are outlined in the Academic Standards documents that accompany each area of study.

No generic or overarching skills are nominated as being core-learning requirements.

Outcomes are described in the Academic Standards document for each study area. Standards are arranged by categories, each category has standard statements (e.g. Describe concepts of models as a way to predict and understand science and technology.) and standard descriptors, which specify the nature of the standard and the level of complexity needed in meeting that standard in a proficient manner. Descriptors serve to benchmark the standard statement.

No generic or overarching attributes and values are nominated as being core-learning requirements.

Although there is not an overarching statement about subject integration and cross-curriculum learning, several of the studies make explicit reference to the relationship between the standards of the study and standards in other study areas.

2. Other organising constructs

Whilst the Academic Standards statements outline the skills and knowledge to be developed in each study area, and curriculum, instruction and assessment should focus on meeting the standard statement, the choice of specific content and the method of instruction is a local (district) decision. Pedagogy is a matter for local (district) decision.

3. Standards

Each curriculum area has an Academic Standards statement that provides the targets essential for success in student learning in the subject. The Academic Standards for the study areas describe what students should know and be able to do at the end of Grades 3, 5, 8 and 12. They describe the expectations for students' achievement and performance throughout their education in Pennsylvania schools. Utilising these standards, school entities can develop a local school curriculum that will meet their students' needs.

The state academic standards are not a statewide curriculum. The standards are a baseline from which school districts should develop their own standards that contain local goals and objectives. It is the responsibility of the local school district to design and implement its own curriculum based on the state academic standards and its own locally developed standards, goals and objectives. The standards are what a student should know and be able to do by the completion of a certain grade. How and when those standards are taught remains in the control of the local school district.

4. Assessment

The state conducts assessments in reading, mathematics and writing that are administered to all students according to the following schedule:

- Reading – Grades 5, 8 and 11
- Mathematics – Grades 5, 8 and 11
- Writing – Grades 6, 9 and 11

The annual Pennsylvania System of School Assessment (PSSA) is mandated for all students. The tests are run by the Department and advice is provided on how to interpret test scores.

Statewide test assessment scores are reported by academic standard categories for individual students, schools and districts. The individual student results are reported only to the parents, guardians, teachers, administrators and guidance counsellors for planning instruction based upon local school board testing policy and for evaluating academic progress. The Department does not obtain any of the individual student results but receives both school- and district-level results.

5. Support materials

The Pennsylvania Academic Standards documents are the core curriculum statements. These are specified and schools must follow these. They are not a curriculum and advice has been provided on how to align curriculum with the standards. The support documentation provides a comprehensive package that embraces a standards framework, curriculum alignment with the framework, sample lessons and assessment tasks and guides to interpret test scores. Advice is also provided on professional development strategies and programs. A brief description of the nature of key support materials follows.

The Department of Education has developed Classroom Connections Resource Materials that are designed to assist districts to implement the state academic standards. These materials include professional development planning advice and advice on how to align the curriculum with the standards. Advice is also provided on the delivery of reading, writing and mathematics instruction. School districts also design standards-based curricula (SBC).

The PA State Standards Website incorporates lesson plans, performance assessment tasks, units of instruction, materials and instructional ideas specifically aligned to the Pennsylvania Academic Standards. The information and materials contained in this site has been solicited from all the Pennsylvania school districts and intermediate units, and are categorised by standard and grade level. They can be searched by primary, middle, secondary and K-12 levels.

Australian Capital Territory

Reference: Department of Education, Youth and Family Services (www.decs.act.gov.au)

Responsibility for the delivery of school education in the Years P–10 in the ACT rests with the Department of Education and Community Services.

1. Curriculum content

The curriculum in the ACT is based on eight key learning areas:

- The Arts
- Health and Physical Education
- Mathematics
- Studies of Society and Environment
- English Language
- Languages other than English
- Science
- Technology.

Each KLA is constructed around a number of content strands. No specific skills are described.

Outcomes are specified in the curriculum documentation and are described as the essential learning to be attained by all students.

2. Other organising constructs

Nine ‘Across Curriculum Perspectives’ are overlaid across all curriculum frameworks:

- Aboriginal and TSI
- Australian
- Environment education
- Gender equity
- Language for understanding
- Multicultural education
- Work education
- Information technology
- Special needs education

The KLA structure of the ACT curriculum has been selected to:

- provide a structure around which schools build the curriculum that best suits the needs of their communities.
- define the parameters within which schools develop their programs and school communities make decisions about curriculum.
- link school curriculum decision making to curriculum expectations at the system and national level.

Students are expected to cover the eight KLAs as set down for each year level, though there is considerable flexibility within the KLAs for school level decisions. The Across Curriculum Perspectives are expected to be included by teachers in their specific course content and teaching strategies.

Time allocation is not mandatory and does not appear to be recommended in the KLA documents.

Each KLA document contains the following:

- an overview of the learning area, including definition, rationale, platform and across curriculum perspectives
- the broad outcomes of the learning area and assessment and reporting guidelines
- a Preschool to Year 12 scope for the learning area and information on the selection of content
- a discussion of learning and teaching and evaluation of programs.

3. Standards

The ACT understands standards as set national standards such as the Australian benchmarks in literacy and numeracy. These benchmarks indicate the minimum acceptable standard required of a student to progress satisfactorily through school.

Each KLA contains outcomes specific to the band or stage of schooling in which students are located.

4. Assessment

Each KLA document contains advice about assessment and course evaluation. The assessment advice is general in nature and refers, for example, to using a variety of assessment approaches. Reporting issues are also covered in the KLA documents and can be summarised as follows:

The purpose of internal reporting is to improve school and student outcomes in literacy and numeracy by working in partnership with teachers and parents.

1. The purpose of external reporting is to:

- provide parents with confidential information about their children's progress in literacy and numeracy, as compared to their ACT cohort, and against the National Profile Levels and the national benchmarks.
 - provide information to improve the flow of communication between parents, the school and the system and to focus attention on improving literacy and numeracy outcomes.
2. Parents and carers receive an individual report if their children have sat the Year 3, 5, 7 and 9 assessment and a general report on the ACT outcomes in literacy and numeracy following each year's assessment.

5. Support materials

Schools develop their own courses based on the frameworks. The DECS produces support materials in areas such as ESL, Information Literacy and advice on incorporating the Across Curriculum Perspectives into school-developed courses.

New South Wales

References:

NSW Board of Studies (www.boardofstudies.nsw.edu.au/)

NSW Department of Education and Training (www.det.nsw.edu.au/)

Responsibility for the curriculum in the compulsory years in NSW rests with the NSW Board of Studies.

1. Curriculum content

The NSW school curriculum is organised into key learning areas from Kindergarten to Year 10. The six key learning areas of the primary school curriculum are:

- English
- Science and Technology
- Creative and Practical Arts
- Mathematics
- Human Society and Its Environment
- Personal Development, HPE

The eight key learning areas for Years 7–10 of the secondary school curriculum are:

- English
- Science
- Languages
- Creative Arts
- Mathematics
- Human Society and Its Environment
- Technological and Applied Studies
- Personal Development, HPE

Outcomes are specified in the curriculum documentation and are described as the essential learning to be attained by all students.

NSW Board of Studies syllabuses and other materials incorporate aims, objectives, outcomes, content, teaching, learning and assessment strategies. The Board of Studies has developed a Statement of Equity Principles to guide the work of syllabus writers. This Statement requires syllabus writers to develop curriculum documents that:

- support the pursuit of excellence
- support quality teaching and learning
- encourage personal growth and self-confidence
- promote a fair and just society
- value diversity
- encourage English language literacy.

In addition to the direction provided by the Statement of Equity Principles, the Board provides specific guidelines for syllabus writers on how to incorporate Asian perspectives and Environmental perspectives in syllabus documents, and direction regarding the education-related recommendations of the Royal Commission into Aboriginal Deaths in Custody.

2. Other organising constructs

Primary

There are six key learning areas in the primary curriculum in New South Wales. These six key learning areas are broad groupings of subjects. Each key learning area deals with the knowledge, skills, understanding, and values and attitudes that are relevant and appropriate for primary students. Subjects are organised in this way to assist teachers in managing the scope of the primary curriculum and to ensure that students have access to a well-balanced curriculum.

Secondary

All students in Years 7–10 in NSW sit for the School Certificate at the end of Year 10. The School Certificate is generally awarded to eligible students after four years of secondary school. In Years 7 to 10, students study a variety of courses to qualify for the award of the School Certificate. As well as taking the necessary combination of courses, they are also required to apply themselves satisfactorily to their studies. The standards-based approach to assessment and reporting in the School Certificate combines external testing in the foundation knowledge and skills with a range of school-based assessment tasks that measure overall achievement in each course. Each student's achievement is reported using detailed and meaningful information on what he or she knows, understands and can do.

3. Standards

See Assessment

4. Assessment

Each syllabus contains specific assessment advice directly linked to the syllabus aims, objectives and content. The Basic Skills test is administered at Years 3, 5 and 7 and the School Certificate at Year 10. Completion of work requirements is the method of course completion in Years 7–10. A common A–E grading scheme is implemented across the state and parents and students are advised of the meaning attaching to each grade. Sample assessment tasks and annotated work samples are produced by the Board to assist in aligning standards between schools.

5. Support Materials

“Syllabus support documents are developed for each syllabus to give teachers practical assistance in teaching students and in using the syllabus to develop programs. Each syllabus is accompanied with a support document that includes sample modules or units of work, recommended teaching strategies, and annotated student work samples.

Other support documents are developed according to the requirements of the individual key learning areas. These additional support documents may include (where considered appropriate) documents for supporting the learning needs of students with special education needs. Additional support documents may be developed to address specific aspects of syllabus content that require more detailed information for teachers.

In addition to developing support material for the individual key learning areas, the Board develops cross-curriculum support material to assist schools in identifying linkages across the key learning areas.”

Northern Territory

Reference: Northern Territory Department of Education (www.schools.nt.edu.au)

A new Northern Territory Curriculum Framework has been developed through a process of consultation and development beginning in 2000. The Framework is to be implemented in 2003 and its implementation is being guided by the Department of Education's Curriculum Services Branch.

1. Curriculum content

The NTCF consists of the following interrelated structural components:

- EsseNTial Learnings – four domains of Inner Learner, Creative Learner, Collaborative Learner and Constructive Learner each of which has a set of culminating outcomes.
- Learning Technology – four domains of Problem-Solving and Decision-Making through Research; Communicating through Presentation, Publication or Performance; Operating Computer Components; and Information Communication Technology (ICT) in Society.
- English as a Second Language – includes Early Childhood/Primary and Secondary pathways.
- Learning Areas – eight nationally agreed Learning Areas of English, Health and Physical Education, Languages, Mathematics, Science, Studies of Society and Environment, Technology and Design, and The Arts.
- Indigenous Languages and Culture – includes language and culture outcomes for Indigenous Language Maintenance and Language Revitalisation programs.

The Northern Territory curriculum is organised around the eight national curriculum frameworks.

- | | |
|-------------|---------------------------------|
| • Arts | • Design and Technology |
| • English | • Health and Physical Education |
| • Languages | • Mathematics |
| • Science | • Society and Environment. |

No specific skills are described.

Outcomes form the basis of the framework and are specified in the curriculum documentation and are described as the essential learning to be attained by all students. It is intended that all students will achieve the Goal Principle of becoming connected lifelong learners.

The following 4 basic principles provide the rationale for Outcomes Based Learning:

- Clarity of focus directs attention towards learning outcomes appropriate to the developmental levels of learners. It is critical that the outcomes are made explicit to learners, teachers, carers and others in the community to enable all partners in education to assist learners to achieve the outcomes.
- High expectations provides opportunities for all learners to reach the levels of which they are capable and is intended to extend teachers' and learners' expectations of what they will come to know and be able to do. High expectations apply to all learners.
- Focus on development emphasises the likely sequence of conceptual and cognitive development and acknowledges the range of developmental differences between learners.
- Design down-deliver up model for curriculum planning and assessment is underpinned by a student-centred approach to learning and teaching. It includes using long-term goals as a focus then 'designing down' to the level of the learners.

The Curriculum Framework itself is driven by the following sets of principles.

Driving Principles

- **Developmental Approach** – Learning is a lifelong journey in which all learners develop at their own pace as they progress via many different pathways.
- **EsseNTial Learnings** – are the critical processes that all learners should develop as a result of their formal schooling enabling them to leave school equipped to participate actively in and contribute to a changing world. EsseNTial Learnings are not additional or optional curriculum extra—they are central to all teaching and learning programs.
- **Partnerships** – The NTCF was developed through extensive consultation with all stakeholders in Northern Territory education. These important partnerships between learners, teachers, parents/carers, school councils, tertiary educators, industry and the wider community play a critical role in education.

Catalyst Principles

- **Flexibility** – The curriculum must cater for the diverse needs of Northern Territory schools and communities. It must acknowledge and provide for local responses to the social, cultural and technological changes that challenge us daily. Schools need to provide an environment in which learners can build resilience to assist them in adapting to the growing complexity of changing families, communities and cultures. Working within an agreed outcome framework enables this flexibility while also providing for accountability.
- **Inclusivity** – All learners, irrespective of culture, language, socioeconomic background, geographical location, disability or gender, must be given the opportunity to access a diverse and empowering education. Learners' backgrounds, interests, prior understandings, experiences, learning styles.
- **Learning rates** should be valued and considered.

Goal Principle

- **Connected Lifelong Learner** – Learners need to make sense of and connect with their local and global communities, diverse environments and economies in order to participate effectively. In this information age, learners will have to be motivated, adaptable and capable of ongoing, self-directed, lifelong learning.

2. Other organising constructs

Literacy, numeracy, environmental perspectives, indigenous perspectives, vocational learning and studies of Asia are to be integrated as cross-curriculum priorities across all KLAs. All KLAs are required.

There is no particular reference to stages of schooling apart from curriculum requirements for primary and secondary schools.

Schools are to determine the time allocation given to KLAs.

Pedagogical advice is contained in course support materials, which are to be provided to teachers to assist them in devising, and teaching the curriculum they deem appropriate for their students within the overall KLA based curriculum framework.

3. Standards

Standards are implicit in the outcomes that are graded for difficulty throughout the curriculum levels.

4. Assessment

Documents contain general advice about assessment. The advice is based on the outcome statements for each level. The assessment approach is described as ‘criteria – referenced assessment’. Online and printed support materials to be developed will support teachers in the use of this approach.

5. Support materials

Support materials are in the process of being developed and are of two types:

- System materials of the Victorian “Course Advice” type, that is, they contain examples of units of work, linkages and connections between strands within KLAs and between KLAs and show how the Essential Learnings and cross curriculum priorities can be woven into teaching programs. They also contain advice about assessing these units and connecting that assessment to the outcomes in the framework.
- School materials of the best practice type to be developed by individual schools and disseminated by the Department.

Queensland

References:

- Education Queensland: (www.education.qld.gov.au/)
- Queensland School Curriculum Council 2000, Subject Area Syllabuses Drafts: (www.qscc.qld.edu.au/kla/other_studies/index.html#dev)

Responsibility for the curriculum in the compulsory years in Queensland rests with the newly formed Queensland Studies Authority.

1. Curriculum content

The Queensland school curriculum is organised into the eight national key learning areas

- The Arts
- Health and Physical Education (HPE)
- Mathematics
- Studies of Society and Environment (SOSE)
- English
- Languages other than English (LOTE)
- Science
- Technology.

Each KLA is described in a syllabus document, much like a CSF document, divided into a number of strands and 8 levels: Foundation Level; Levels 1–6; and above Level 6.

Outcomes are specified in the curriculum documentation and are described as the essential learning to be attained by all students.

The Queensland school curriculum is designed so that students develop the attributes of a lifelong learner. A lifelong learner is:

- a knowledgeable person with deep understanding
- a creative person
- an effective communicator
- a participant in an interdependent world.
- a complex thinker
- a reflective and self-directed learner.
- an active investigator

2. Other organising constructs

Literacy, numeracy, life skills and a futures perspective are overlaid on the curriculum syllabuses. “Each syllabus contains an explicit futures orientation while recognising the significance of continuity with the past.”

The Queensland curriculum for the compulsory years of schooling is based on an outcomes approach. “The key learning areas provide a useful way of categorising learning outcomes that describe what Queensland students should know and be able to do with what they know”.

All KLAs are required. History, geography and civics are optional subjects within SOSE.

Advice on time allocation is as follows:

Key learning areas	Years 1 to 3 (minimum hours across three years)	Years 4 to 7 (minimum hours across four years)	Years 8 to 10 (minimum hours across three years)
The Arts	300	400	180
English	780	640	240
Health and Physical Education*	180	240	180
Languages other than English	0	240	180
Mathematics	600	640	240
Science	180	240	180
Studies of Society and Environment	240	240	180
Technology	180	240	180
System/school designated time	120	320	840
Total	2580**	3200	2400

* The core time indicated for the Health and Physical Education key learning area does not include time for sport and recreational studies.

** In Years 1 to 3 there are an extra 180 hours available as students in these years are not involved in sport and recreational studies as are students in Years 4 to 10.

Pedagogical guidance is contained in the syllabuses.

3. Standards

Standards are implicit in the outcomes that are graded for difficulty throughout the curriculum levels.

4. Assessment

Syllabuses contain general advice about assessment. It is based on the outcome statements for each level.

5. Support materials

Key Learning Area sourcebook guidelines and sourcebook modules provide a range of suggested learning and teaching activities, and information about curriculum resources. While the activities described in sourcebook modules are not prescriptive or mandatory, they provide ideas on how to assist students to demonstrate the core learning outcomes of a particular syllabus and the kinds of learning experiences appropriate for a range of students and schooling contexts. They may describe strategies by which teachers can address in their planning such considerations as:

- cross-curricular priorities of literacy, numeracy, life skills, and a futures perspective
- cross-strand integration
- cross-key learning area links
- safety issues relevant to the key learning area
- key concepts, organising ideas and processes relevant to the key learning area
- manipulative skills or other performance requirements not described in the strand level statements
- other key learning area-specific features.

They also:

- provide elaborations of core-learning outcomes
- provide advice on the selection and integration of learning opportunities
- address learning contexts suited to the key learning area.

One other initiative worthy of note is outlined below.

The ‘New Basics’ research program

The New Basics research is designed to test the validity and feasibility of the proposition that teachers’ practice and student outcomes will be improved through a reconceptualisation of the curriculum around a new set of basics skills and understandings combined with more productive pedagogy and an assessment approach based on the notion of rich tasks.

The curriculum focus of the program centres around four key organisers.

1. Life Pathways and social futures: Who am I and where am I going?
2. Multiliteracies and communications media: How do I make sense of, and communicate with, the world?
3. Active citizenship: What are my rights and responsibilities in communities, cultures and economies?
4. Environments and technologies: How do I describe, analyse and shape the world around me?

The assessment approach of the New Basics is based on the notion of Rich Tasks. Rich tasks will:

- range across operational fields and knowledge – are transdisciplinary.
- be challenging – have significant intellectual, cognitive and developmental depth and breadth.
- have real-world value and use – they are problem-based and have relevance and power in everyday life and new worlds of work.
- draw on a repertoire of practices – there is a broad range of cognitive and cultural, linguistic and social skills to be acquired developmentally.

The key issue for the New Basics research program will be its ability to transform teachers’ practice and thus achieve alignment between the curriculum content, classroom practice, assessment and student outcomes.

South Australia

References:

South Australian Curriculum Standards and Accountability Framework:
(www.sacsa.nexus.edu.au/)

South Australian Department of Education and Children's Services: (www.dete.sa.gov.au)

Responsibility for the curriculum in the compulsory years in South Australia rests with the South Australian Department of Education, Training and Environment. Curriculum is developed by schools in the context of the South Australian Curriculum Standards and Accountability Framework (SACSA).

1. Curriculum content

The South Australian school curriculum is organised as follows:

Early years: Birth – Year 2

The first phase of the Early Years Band is built around three learning areas:

- the psychosocial self
- the physical self
- the thinking and communicating self.

Primary, Middle and Senior Years: Years 3–12

South Australia organises its primary, middle and senior curriculum around eight learning areas.

- Arts
- English
- Languages
- Science
- Design and Technology
- Health and Physical Education
- Mathematics
- Society and Environment.

Outcomes are specified in the curriculum documentation and are described as the essential learning to be attained by all students.

The SACSA framework is designed so that all students will be able to:

- develop the flexibility to respond to change, recognise connections with the past and conceive solutions for preferred futures (Futures)
- develop a positive sense of self and group, accept individual and group responsibilities and respect individual and group differences (Identity)
- work in harmony with others and for common purposes, within and across cultures (Interdependence)
- be independent and critical thinkers, with the ability to appraise information, make decisions, be innovative and devise creative solutions (Thinking)
- communicate powerfully (Communication).

2. Other organising constructs

The learning areas are overlaid by five 'Essential Learnings'

1. Futures: developing perspectives to critically reflect upon and contribute to creating preferred futures
2. Identity: critically understanding and developing personal identity, group identity, and relationships, and acting to shape these
3. Interdependence: developing a sense of connectedness with other people, and systems, reflecting on and taking action to shape local and global communities

4. Thinking: developing creativity, enterprise, wisdom and the capability to evaluate and generate ideas and solutions
5. Communication: developing knowledge, skills and dispositions required to construct and deconstruct meaning, and to critically understand and use the power of communication and its technologies.

They are also connected to a series of 'equity perspectives': Aboriginal education, socio-economic; gender equity; rural; disabilities and impairments; SHIP and ESL. It is also said to include a focus on vocational and enterprise education, coherence and standards.

The rationale relates to the attributes and values outlined above. There is no comparative rationale, arguing for this particular form of curriculum organisation over any other.

The SACS Framework is organised into four Curriculum Bands or Stages of Learning. The bands are:

- Early Years: Birth – Year 2 of school (comprising three phases: Birth – Age 3; Age 3 – Age 5; Reception – Year 2)
- Primary: Years 3–5
- Middle: Years 6–9
- Senior: Years 10–12.

The KLAs are developed in response to these stages and are based on a developmental view of student learning. As in Victoria, there is a heavy emphasis on literacy and numeracy in the Early Years with the curriculum gradually broadening as students grow and develop.

Pedagogical guidance is contained in the support materials (see below).

3. Standards

Standards are implicit in the outcomes that are graded for difficulty throughout the curriculum levels.

4. Assessment

KLA documents contain general advice about assessment. The advice is based on the outcome statements for each level.

5. Support Materials

Support materials are of the Victorian 'Course Advice' type, that is, they contain examples of units of work, linkages and connections between strands within KLAs and between KLAs and show how the Essential Learnings can be woven into the curriculum. They also contain advice about time allocation, assessment and connecting that assessment to the outcomes in the framework. It is not required that schools and teachers adopt the advice contained in the support materials, although there is an accountability requirement as described below.

The SACS framework is directly connected to the Accountability framework for schools. Curriculum accountability is defined as the professional responsibility of educators, site leaders and state office personnel to:

- provide a comprehensive account of the progress and achievement of learners as described in the SACS Framework
- explicitly account for the steps taken to improve the level of achievement within the Outcomes and Curriculum Standards.

This professional responsibility is addressed through the four dimensions of Curriculum Accountability.

1. Constructing a curriculum based on the SACSA Framework, which is responsive to a diversity of learners.
2. Providing ongoing feedback to learners based on a range of assessment strategies.
3. Implementing intervention and support programs based on an analysis of learner achievement data.
4. Reporting the Outcomes and Curriculum Standards achieved to learners, parents and caregivers and the community. (SACSA Framework)

Tasmania

References:

- Department of Education Tasmania (www2.education.tas.gov.au/)
- The Tasmanian Secondary Assessment Board (www.tassab.tased.edu.au)

Responsibility for the curriculum in the compulsory years in Tasmania rests with the Tasmanian Department of Education and with the Tasmanian Secondary Assessment Board for Years 9–12.

In December 2000 the Minister for Education launched a Values and Purposes Statement. This was followed by the Learning Together initiative in 2001 that began the co-construction of the Essential Learnings Framework 1. The Essential Learnings Framework is made up of a set of elements that together address curriculum, teaching and assessment. These elements are:

- Values and Purposes Statement
- Learning, Teaching and Assessment Principles
- Learners and Learning Provision
- Essential Learnings Statement
- Outcomes and Standards
- Learning, Teaching and Assessment Guide

1. Curriculum content

The principles underpinning the Essential Learnings Framework 1 are:

The curriculum must

- focus on understanding, deep knowing, rigour and depth
- embody and reflect the values outlined in the Values and Purposes Statement
- enact the purposes described in the Values and Purposes Statement
- interconnect and interrelate knowledge, skills and dispositions within and across the essential areas of learning
- engage learners in authentic achievement
- foster diversity and inclusivity in the achievement of common goals
- include a focus on pedagogy
- describe content that is significant and worth knowing
- clearly state what learning is expected
- build continuity and coherence for all learners from birth onwards.

The five curriculum organisers, Thinking, Communicating, Personal Futures, Social Responsibility and World Futures, are used to provide a framework to focus teaching and learning and a means of selecting content that is significant. These curriculum organisers are called Essential Learnings. The description of each essential learning includes a set of questions to guide educators in designing and implementing programs that will enable learners to acquire the relevant knowledge, skills and dispositions.

The **Tasmanian Secondary Assessment Board** provides curriculum, standards, assessment and certification for all upper and senior secondary students (Years 9–12) in Tasmania. They are organised by subjects and subject groups within learning areas. The learning areas are:

- Arts
- Health and Physical Education
- Mathematics
- Studies of Society and the Environment
- Technology
- English
- Languages
- Science
- Special Needs

No specific skills are described.

The framework defines Culminating Outcomes that describe a small set of valued learning performances linked to each of the Essential Learnings. They represent the teaching and learning goals towards which education is working. The Essential Learnings Framework aims to provide a comprehensive curriculum for all learners so that they can become citizens and lifelong learners who are:

- Inquiring and Reflective Thinkers – able to reason, question, make decisions and solve complex problems. As reflective thinkers they will be empathetic and able to make ethical decisions about issues, events and actions.
- Effective Communicators – able to create, communicate and convey ideas clearly and confidently, using the full range of symbolic systems. They will interact critically with communications created by others, interpreting linguistic, numerical and graphic information with judgment and discernment.
- Self-directed and Ethical People – having a positive vision for themselves and their future, acting with moral autonomy and contributing to constructive futures for themselves and others.
- Responsible Citizens – prepared to participate actively in a democratic community, valuing diversity and acting for a just and equitable society.
- World Contributors – willing to consider the consequences of scientific and technological innovations, make thoughtful decisions about their application, and act to maintain, protect and enhance local and global environments.

The following seven core values and six statements of purpose have guided development of the Essential Learnings Framework 1.

Values

- connectedness
- creativity
- equity
- resilience
- integrity
- achievement
- responsibility

Purposes

The six purposes are that children are:

- learning to relate, participate and care
- learning to create purposeful futures
- learning to learn
- learning to live full, healthy lives
- learning to act ethically
- learning to think, know and understand.

2. Other organising constructs

Outcomes are being developed for five stages of schooling:

- Stage 1 (0–3 years)
- Stage 2 (Kinder to Grade 1)
- Stage 3 (Grade 2 – Grade 4)
- Stage 4 (Grade 5 – Grade 7)
- Stage 5 (Grade 8 – Grade 10)

Time allocations are not prescribed except for syllabuses for Years 9–12

Pedagogical guidance is implicit in the syllabuses and explicit in the Board developed support materials.

3. Standards

Learning outcomes and standards will be used to enable the provision of appropriate pathways to continuing education and work following the compulsory years of schooling. Outcomes and Standards for the Essential Learnings Framework 1 are to be developed in 2003–2004.

4. Assessment

It is intended that, in time, all schools will use the Essential Learnings Framework to guide decision-making about the curriculum in the compulsory years of schooling. By 2005, all schools will be reporting on outcomes and standards derived from the Essential Learnings.

5. Support Materials

The **Tasmanian Secondary Assessment Board** provides past examination papers, examination reports, support material (e.g. sample examination papers, student/teacher guidelines), syllabuses and standards documents for each externally assessed syllabus are available on their website

Western Australia

Reference: Curriculum Council of Western Australia (www.curriculum.wa.edu.au/)

Responsibility for the curriculum from Kindergarten to Year 12 in Western Australia rests with the Curriculum Council of Western Australia.

1. Curriculum content

The key learning areas in the Framework are:

- The Arts
- English
- Mathematics
- LOTE
- Health and Physical Education
- Science
- Society and Environment
- Technology and Enterprise

No specific skills are described.

As well as the outcome description in each of the key learning areas, a series of ‘overarching learning outcomes’ are described in the Frameworks document. These outcomes apply across all learning areas and are the responsibility of all teachers. They are as follows:

- Students use language to understand, develop and communicate ideas and information, and interact with others.
- Students select, integrate and apply numerical and spatial concepts and techniques.
- Students recognise when and what information is needed, locate and obtain it from a range of sources and evaluate, use and share it with others.
- Students select, use and adapt technologies.
- Students describe and reason about patterns, structures and relationships in order to understand, interpret, justify and make predictions.
- Students visualise consequences, think laterally, recognise opportunity and potential and are prepared to test options.
- Students understand and appreciate the physical, biological and technological world and have the knowledge and skills and values to make decisions in relation to it.
- Students understand their cultural, geographic and historical contexts and have the knowledge, skills and values necessary for active participation in life in Australia.
- Students interact with people and cultures other than their own and are equipped to contribute to the global community.
- Students participate in creative activity of their own and understand and engage with the artistic, cultural and intellectual work of others.
- Students value and implement practices that promote personal growth and well being.
- Students are self-motivated and confident in their approach to learning and are able to work individually and collaboratively.
- Students recognise that everyone has the right to feel valued and be safe, and, in this regard, understand their rights and obligations and behave responsibly.

An explicit acknowledgment of core-shared values is one of the principles of the Curriculum Framework. These values are:

- A pursuit of knowledge and a commitment to achievement of potential
- Self acceptance and respect of self
- Environmental responsibility
- Respect and concern for others and their rights
- Social and civic responsibility

2. Other organising constructs

Students are expected to cover the eight KLAs as set down for each year level, though there is considerable flexibility within the KLAs for school-level decisions.

Four stages of development are described in the Western Australian Curriculum Framework. They are:

- Early Childhood (typically kindergarten to Year 3)
- Middle Childhood (typically Years 3 to 7)
- Early Adolescence (typically Years 7 to 10)
- Late Adolescence/Early Adulthood (typically Years 10 to 12)

These stages are used to frame descriptions of the curriculum that students might typically experience at various overlapping stages of development in each of the key learning areas.

How a school structures learning opportunities in terms of time and the range of courses and programs provided remains the school's responsibility and depends on the school's or teacher's assessment of students and their particular needs.

3. Standards

The Framework defines outcomes that provide a framework for kindergarten to Year 12 curriculum in each of the Key Learning Areas.

4. Assessment

The Framework urges schools to use the following principles, values and beliefs to inform assessment:

- Valid – Assessment should provide valid information on the actual ideas, processes, products and values expected of students.
- Educative – Assessment should make a positive contribution to student learning.
- Explicit – Assessment criteria should be explicit so that the basis for judgements is clear and public.
- Fair – Assessment should be demonstrably fair to all students and not discriminate on grounds that are irrelevant to the achievement of the outcome.
- Comprehensive – Judgments on student progress should be based on multiple kinds and sources of evidence.

5. Support Materials

The Curriculum Council of Western Australia provides support materials on their Web site including:

- Information for Parents
- Lists of Resources
- Case studies on Integrated Learning
- Learning Area support documents
- Professional Development Guidelines
- Case studies to Introduce the Curriculum Framework
- Early Childhood
- Case studies on each of the KLAs



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