The future-ready schools model

The curriculum model

The intent of the future-ready curriculum model is to reframe the conventional 20th century curriculum to better suit the needs of future citizens. These needs are considered as those proposed by Patrick Griffin, Barry McGaw and Esther Care of the Melbourne Graduate School of Education (Melbourne University) in their editorial of 'Assessment and Teaching of 21st Century Skills' [Springer 2012].

Future-ready schools are conceptualised on the assumption that society's future is best served if students progressively develop a certain set of beliefs, attitudes, knowledge and skills. These can be distilled into

Beliefs	Attitudes	Knowledge	Skills
1. I can learn 2. I can improve 3. I can contribute	1. Hard work & effort lead to improvement 2. I care about myself, others, and the world I live in	1. I understand my strengths and challenges 2. I understand my preferences and needs 3. I understand how we co-exist in an eco-system of interdependence	1. I know how to learn 2. I know how to improve 3. I know how to think 4. I know how to problem-solve 5. I know how to survive, function, thrive and contribute in an interdependent world

The model is represented by a matrix of student competencies and learning domains, with the horizontal axis being the competencies and the vertical axis being the domains.

The horizontal axis is organised under the two headings of cognitive and executive competencies. The progression is as follows.

Cognitive competencies	Executive competencies
understanding the self	identifying personal needs
understanding others	identifying the needs of others
understanding systems	social engagement (forming social alliances)
	taking action (creating and implementing solutions)

The vertical axis represents the learning domains, which host the development of the student competencies and are organised under the three classifications of caring; communication & expression; and creativity. Learning areas are listed for each domain as follows.

Learning domains	Learning areas
Caring	Citizenship, health, life skills, sustainability
Communication & expression	Artistic, digital, functional, technical
Creativity	Artistic thinking, critical thinking, solutions thinking

Solutions thinking is further divided into design (including engineering), mathematics, and sciences.

The model is represented by the following matrix

The curriculum matrix

Competencies				Cognitive competence			Executive competence			
				Understanding			Identifying needs		Social engagement	Taking action
Learning domains	Learning areas		Learning genres	Self	Others	Systems	Personal	Societal		
				A	B	C	D	E	F	G
Caring	1	Citizenship	Ethics Law Politics Rights & responsibilities Social contracts	- Global concept - Essential knowledge & skills	- Global concept - Essential knowledge & skills	- Global concept - Essential knowledge & skills	- Global concept - Essential knowledge & skills	- Global concept - Essential knowledge & skills	- Global concept - Essential knowledge & skills	- Global concept - Essential knowledge & skills
	2	Health	Recreation & leisure Relationships Safety Wellbeing Mental Physical	- Global concept - Essential knowledge & skills	- Global concept - Essential knowledge & skills	- Global concept - Essential knowledge & skills	- Global concept - Essential knowledge & skills	- Global concept - Essential knowledge & skills	- Global concept - Essential knowledge & skills	- Global concept - Essential knowledge & skills
	3	Life skills	Cultural conventions Financial literacy Functional competence Domestic skills Practical technique Interdependence	- Global concept - Essential knowledge & skills	- Global concept - Essential knowledge & skills	- Global concept - Essential knowledge & skills	- Global concept - Essential knowledge & skills	- Global concept - Essential knowledge & skills	- Global concept - Essential knowledge & skills	- Global concept - Essential knowledge & skills
	4	Sustainability	Bioethics Ecosystems Global issues	- Global concept - Essential knowledge & skills	- Global concept - Essential knowledge & skills	- Global concept - Essential knowledge & skills	- Global concept - Essential knowledge & skills	- Global concept - Essential knowledge & skills	- Global concept - Essential knowledge & skills	- Global concept - Essential knowledge & skills
Communication & expression	5	Artistic Digital Functional Technical	Arts Language Performing Visual Coding Transactional & procedural	- Global concept - Essential knowledge & skills	- Global concept - Essential knowledge & skills	- Global concept - Essential knowledge & skills	- Global concept - Essential knowledge & skills	- Global concept - Essential knowledge & skills	- Global concept - Essential knowledge & skills	- Global concept - Essential knowledge & skills
Creativity	6	Artistic thinking	Frameworks & conventions Schools of thought Skill development	- Global concept - Essential knowledge & skills	- Global concept - Essential knowledge & skills	- Global concept - Essential knowledge & skills	- Global concept - Essential knowledge & skills	- Global concept - Essential knowledge & skills	- Global concept - Essential knowledge & skills	- Global concept - Essential knowledge & skills
	7	Critical thinking	Cause & effect Fact & opinion Options & choices Socio-political history	- Global concept - Essential knowledge & skills	- Global concept - Essential knowledge & skills	- Global concept - Essential knowledge & skills	- Global concept - Essential knowledge & skills	- Global concept - Essential knowledge & skills	- Global concept - Essential knowledge & skills	- Global concept - Essential knowledge & skills
	8	Solutions thinking	Design Engineering solutions Form & function Materials & properties	- Global concept - Essential knowledge & skills	- Global concept - Essential knowledge & skills	- Global concept - Essential knowledge & skills	- Global concept - Essential knowledge & skills	- Global concept - Essential knowledge & skills	- Global concept - Essential knowledge & skills	- Global concept - Essential knowledge & skills
	9		Mathematics Conventions Logic Pattern	- Global concept - Essential knowledge & skills	- Global concept - Essential knowledge & skills	- Global concept - Essential knowledge & skills	- Global concept - Essential knowledge & skills	- Global concept - Essential knowledge & skills	- Global concept - Essential knowledge & skills	- Global concept - Essential knowledge & skills
	10		Sciences Information management Data synthesis & analysis Methodology & technique	- Global concept - Essential knowledge & skills	- Global concept - Essential knowledge & skills	- Global concept - Essential knowledge & skills	- Global concept - Essential knowledge & skills	- Global concept - Essential knowledge & skills	- Global concept - Essential knowledge & skills	- Global concept - Essential knowledge & skills

Approaches to learning and teaching

If students are to internalise the desired set of beliefs, attitudes, knowledge and skills, their learning must be relevant to their needs. This can be assured by progressively empowering them to have 'agency' or the power to act over their learning. Teaching them how to recognise their learning needs and the needs of others, along with understanding how to learn, helps to equip them for this journey.

The emphases on the approaches to learning and teaching are a combination of teacher directed instruction and student directed inquiry learning. They are commonly known as

Direct instruction
Inquiry-based learning
Place-based learning
Project-based learning

It is the professional judgement of the teacher that determines which approach is most appropriate at any given time and it is expected that there would be a seamless combination of them for any given unit of work, with an emphasis on student-led projects or inquiry. Ideally, students would co-create the global concepts and use metacognitive skills to pursue projects or lines of inquiry that both extend and interest them.

Where the competencies and learning domains intersect on the curriculum matrix, global concepts, understandings and skills are offered as examples to guide units of work. The intersections are fluid and inquiry will often cross several intersections as necessary.

Global concepts

The global concepts that are provided are examples and are not prescriptive. Schools, teaching units, individual teachers or students would create and co-create their own concepts, depending on student interests, 'hot' topics, and resources available at the time of teaching. It is an expectation that the concepts will be timeless, trans-national, true and useful. These links lead to examples of global concepts and concept prompts.

Schools would regularly audit curriculum coverage to ensure it is comprehensive and track depth of understanding and competency to inform whether future revisits are needed.

Essential knowledge and skills

A list of knowledge and skills is provided for each global concept as a guide to indicate competency. Again, these are examples to be modified and added to as needed.

The place of literacy and numeracy

The ability to read, write, speak and listen well is central to increasingly deep learning. The ability to reason and compute algorithmically is central to the creative process and access to the functional world. In a reframed curriculum, it is reasonable to continue prioritising literacy and numeracy as core skill sets that empower learners to pursue ventures of passion or interest.

For this reason, the acquisition of literacy and numeracy skills remains a central focus of the curriculum, especially in the pre-adolescent years. Literacy and numeracy skills are explicitly taught early each day and applied and practised during the inquiry sessions as appropriate.

Student assessment

The global concepts addressed throughout a year are recorded for each student. Three assessment approaches are used; student portfolios, teacher portfolios, and 'achievement-based, standards-referenced frameworks, which are used to develop profiles of student development' (Care & Griffin).

Student reporting

At the beginning of each year, teachers meet individually with parents to discuss any foreseen challenges a student may face and to share perceived strengths, both academic and social. If any concerns arise throughout a year, then these are also explored at individual parent-teacher meetings. Meetings are regularly held to plan and refine strategies for students who need extra support to progress.

Student-led conferences are held twice each year (mid and end) to report achievements, challenges and future learning intentions, with records kept to track progress. Such conferences include the student, a parent and the home-room teacher.

A typical day

Most schools have five hours of deliberate learning time available each day. With literacy and numeracy being key skill sets that are central to successful learning, they have priority placement in the prime learning times. Without being prescriptive, a typical learning day may look like this.

Example of a daily program

1 hour	1 hour	30 minutes	1 hour	1 hour	2 hours
Literacy	Numeracy	Break	Specialist Inquiry	Lunch break	Inquiry

Resources

The resources needed to implement the reframed curriculum model are the same as existing resources. There is no need to financially invest any more than is currently allocated in a school. However, because there is an emphasis on students taking action in the new approach, resources will increasingly include those available in the local and broader community.

Community resources

The main community resource is its people, with their inherent skills, knowledge and common sense. If students are to be entrepreneurial, organising and managing initiatives or projects, they need mentoring, practical skills and a sense of what works. A place-based system for engaging community expertise and support would need to be established in each school for the reframed curriculum to be most effective.