

Knowledge & skills examples

Competencies			Cognitive competence			Executive competence			
Learning domains	Learning areas	Learning genres	Understanding			Identifying needs		Social engagement	Taking action
			Self A	Others B	Systems C	Personal D	Societal E		
Caring	1	Citizenship Ethics Law Politics Rights & responsibilities Social contracts	A1 <ul style="list-style-type: none"> Individuals need to belong and be included. People are the same and different in many ways. Groups are defined by a culture of behaviours, symbols and systems. Groups form internal hierarchies. Exclusion occurs when either the hierarchy or culture of a group is challenged by differences. Inclusion occurs with acceptance of a group's hierarchy and culture. 	B1 <ul style="list-style-type: none"> Possession and occupation are significant indicators of ownership. Ownership can be indicated by copyright, trademarks, watermarks, titles, registration and certificates. It is difficult to assign ownership to intellectual property. Ownership is protected by legislation. Ownership can be transferred. The state can grant public access to and use of designated property. Theft is unauthorized acquisition of property. 	C1 <ul style="list-style-type: none"> Agreed standards and rules of behaviours govern the functionality of a group. Law is based on socially accepted and legislated mores, beliefs and standards of behaviour. A country's law is designed to protect the life, property and rights of its citizens. A county's law should be applied fairly, equitably and dispassionately. The presumption of innocence until proven guilty is a basic tenet of law in a democratic society. 	D1 <ul style="list-style-type: none"> Well-formed beliefs, based on reason and empathy, are the basis for forming personal standards of behaviour and decorum. Personal morality regulates decision making. An active interest in the welfare of the predominant society enhances personal wellbeing. 	E1 <ul style="list-style-type: none"> A social contract is an informal agreement about behaviour. Social contracts define what is acceptable and unacceptable behaviour. Many social contracts are unwritten and unstated. Many social contracts are acquired through family relationships. Many social contracts support peace and harmony. Society reinforces social contracts through rewards and sanctions. Many social contracts are created by exemplary behaviour. 	F1 <ul style="list-style-type: none"> Empathy is the ability to understand and share the feelings of another. Respect is an understanding of the worth of something or someone. Care is the welfare of or concern for another. Goodwill is an intention of understanding and cooperation. Cooperation is working together to achieve a common purpose. Healthy relationships thrive on a well-defined social contract. 	G1 <ul style="list-style-type: none"> A community is a group with a common sense of place, identity, purpose or belonging. Community members usually relate to, interact with and support each other. Communities can be exclusive and protective. Geographic communities often form locally-specific social contracts. Communities can be largely self-sufficient. A thriving community cares for its members. A thriving community services its members' needs. Individual community members usually contribute to the greater good of the community.

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Caring	2	Health Recreation & leisure Relationships Safety Wellbeing Mental Physical	A2 <ul style="list-style-type: none"> To understand others, it helps to have an understanding of self. All human bodies have the same components and functions. The human body is a complex organism made up of interrelating systems. Personal wellbeing requires proper care of the body's systems. Diet, exercise and lifestyle choices affect wellbeing. 	B2 <ul style="list-style-type: none"> Families influence the individual. Sociological circumstances (race, ethnicity, gender, class, etc.) influence an individual's perceptions of and reactions to the world. Groups and cultures are similar and different in meeting needs and concerns of their members. Institutions, such as schools, churches & clubs, influence the individual. Ethnicity and cultures influence people's daily lives. Social systems, such as schools, media, religions & families, prescribe racial, ethnic, and gendered identities. There is a difference between "acceptance" and "tolerance". 	C2 <ul style="list-style-type: none"> Government institutions, religious organisations, community clubs and commercial ventures offer a variety of wellbeing services. Appropriate infrastructure, such as the provision of clean water, clean air and proper stormwater and sewage disposal, impacts of the wellbeing of a society. Responsible waste disposal and recycling contributes to the wellbeing of our Biosystems. Environmental protection, food quality assurance and sustainability measures help maintain a viable planet for continuing thrival. 	D2 <ul style="list-style-type: none"> Lifestyle choices affect happiness. A sense of purpose and achievement affects happiness. A sense of belonging affects happiness. A healthy physical and mental state enhances happiness. Interpersonal relationships enhance happiness. 	E2 <ul style="list-style-type: none"> It is in the interests of a society to have a healthy population. An understanding of Maslow's hierarchy of basic needs provides insights into human behaviour. Different societies meet each of Maslow's needs in different ways. 	F2 <ul style="list-style-type: none"> Culture is expressed through behaviours, systems and symbols. Successful collaboration requires explicit cultural agreements. 	G2 <ul style="list-style-type: none"> Individual wellbeing contributes to collective wellbeing. The pursuit of happiness is a global quest. A wellbeing plan encompasses physical, mental and spiritual health. A healthy and happy society contributes to global peace. It is in the interests of one culture to care for another. Celebrating differences and similarities enhances acceptance and respect

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Caring	3	Life skills Cultural conventions Financial literacy Functional competence Domestic skills Practical technique Interdependence	A3 <ul style="list-style-type: none"> • Trade and barter preceded the use of money. • Money can be legally acquired through endeavor, trade, inheritance, fortune, or investment. • People use money to satisfy their needs and wants. • The ability to distinguish between needs and wants affects wealth. • Budgets regulate cash flow. • Purchasing power is regulated by income, 	B3 <ul style="list-style-type: none"> • Human, natural, and capital resources each have different attributes. • Changes in transportation and communication have affected trade and economic activities. • People satisfy their basic needs and wants through the production of goods and services. • Trade affects the way people earn their living in the regions of the world. • There are differences in the division of labor from hunting and gathering societies to farming communities to urban societies. • The primary causes of world trade. 	C3 <ul style="list-style-type: none"> • Regulatory systems help prevent abuse of financial management. • Abuse of financial management is motivated by need or greed. • Regulatory systems include audits, internal control, fair practice policing, and legislation. • Free trade agreements are based on goodwill. • The use of negotiation can fine-tune costs. 	D3 <ul style="list-style-type: none"> • Being attractive to others is a combination of personal attributes. • Personal attributes include appearance, demeanor, social graces, humour, abilities, attitudes and beliefs. • Self-reflection gives insight into the nature of personal attributes. • Self-reflection can affirm personal worth. • Self-reflection strengthens the ability to improve personal attributes. • Self-reflection can build resilience and confidence. 	E3 <ul style="list-style-type: none"> • Norms are informal understandings that govern the behaviour of members of a society. • Mores are characteristic customs and conventions of a community. • Norms and mores are social contracts. • Norms and mores strongly influence the behavioral expectations of a family. • Norms and mores underpin government systems. • Norms and mores underpin legislation. • Communities apply rewards and sanctions for conformity and non-conformity with norms and mores. 	F3 <ul style="list-style-type: none"> • A society's norms determine social graces. • Social graces are forms of etiquette and manners. • Etiquette and manners are forms of empathy, care and kindness. • Social graces evolve with each generation. • Social graces reinforce a sense of belonging. • Courtesy is attractive to many people. • Social graces enhance friendship and courtship. • Social graces enhance business relationships. 	G3 <ul style="list-style-type: none"> • Organising and managing events requires competent leadership skills. • Organising and managing events requires competent interpersonal skills. • Engaging, supporting and facilitating others is central to organising and managing events. • Social events celebrate and reward alliances. • Social events reinforce a sense of belonging.

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Caring	4	Sustainability Bioethics Ecosystems Global issues	A4 <ul style="list-style-type: none"> An ecosystem is a form of community. Ecosystems are self-regulatory. Ecosystems have finely tuned food chains. Each element of an ecosystem is important to the existence of the others. Disrupting one element of an ecosystem can disrupt the whole system. The health of ecologies affects our wellbeing. 	B4 <ul style="list-style-type: none"> Human needs and wants impact ecosystems. Describe characteristics, locations, uses, and management of renewable and non-renewable resources. Awareness of, understanding and exposure to ecosystems affects human attitudes to them. Political and commercial decisions often affect ecosystems. Sustainable agriculture and aquaculture are dependent on healthy ecosystems. Organisms can survive only in environments in which their particular needs are met. 	C4 <ul style="list-style-type: none"> The energy released from food was energy from the sun captured by plants. Plants acquire their material for growth chiefly from air and water. Organisms are related in food webs in which some animals eat plants for food and other animals eat the animals that eat plants. Some organisms, such as fungi and bacteria, break down dead organisms and operate as “decomposers.” Decomposition recycles some materials back to the soil. A healthy ecosystem is one in which multiple species are each able to meet their needs. Matter cycles between the air and soil and among plants, animals, and microbes as they live and die. 	D4 <ul style="list-style-type: none"> Decisions have consequences that affect others. Distinguishing between needs and wants informs the determination of priorities. Our everyday choices affect the health of ecosystems. Needs and wants can be satisfied without adversely affecting ecosystems. The food of almost any kind of animal can be traced back to plants. 	E4 <ul style="list-style-type: none"> Urban development can have a major impact on ecosystems. Many building and construction conventions and resources impact negatively on ecosystems. Alternative building and construction methods and resources can be eco-friendly. Commercial interests are a strong determinant of ecological health. Affordability influences the everyday choices of society. A transition to sustainable, eco-friendly systems is expensive and risky in the short term. A transition to sustainable, eco-friendly systems is politically progressive. Food provides animals with the materials they need for body repair and growth and the energy they need to maintain body warmth and for motion. 	F4 <ul style="list-style-type: none"> Popular opinion affects political decisions. Sustainable ecosystems require supportive political decisions. The opinion of popular people influences popular opinion. People listen to opinion when issues affect them directly. People act on opinion depending on levels of convenience, risk and cost. People act on opinion if they gain power. 	G4 <ul style="list-style-type: none"> Education influences the opinions of people. People can be educated through informed discourse and discussion. A collective voice influences political decisions. Sustainability is reliant upon political and commercial decisions. Information about ways individual communities use scientific ideas to protect the Earth’s resources and environment can be gathered, combined and promoted.

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Communication & expression	5	Artistic Digital Functional Technical	Arts Language Performing Visual Coding Transactional & procedural	A5 <ul style="list-style-type: none"> • Expression is a fundamental human need. • Communication happens through a variety of media. • All five physical senses have a communication role. • There are conventions of expression that allow access to purpose and meaning. • Each expressive medium has unique skills, tools and conventions. 	B5 <ul style="list-style-type: none"> • Effective expression requires a receptive audience. • Seek first to understand and then be understood. • Listening skills are important to effective communication. • There is receptive and expressive language. • There are many different languages in the world • Different world cultures have similarities and differences in expressive forms and conventions of communication. 	C5 <ul style="list-style-type: none"> • Expression and communication require expertise and structure. • Enhanced expression requires increasingly sophisticated skills and techniques. • Exhibiting, performing and publishing require organisation, resources and management. 	D5 <ul style="list-style-type: none"> • Self-expression and reflection develop an understanding of abilities, limitations and growth needs. • Self-expression and reflection develop an understanding of how the world works. • Developing skills and techniques requires determination, perseverance and resilience. • Achieving mastery is a source of happiness. • Talents and interests are media for expression and communication. 	E5 <ul style="list-style-type: none"> • Mass media is important to societal cohesion. • Mass media can provide transparency and accountability. • Mass media can be manipulated to promote ideology. • Social media appeals to the need to belong. • Social media is populist. 	F5 <ul style="list-style-type: none"> • Dependence, independence and interdependence are both a progression and an application, according to the need of any given time. • Communication protocols affect the quality of relationships. • Talents and interests are conduits for social connection. 	G5 <ul style="list-style-type: none"> • Expressive mediums have unique and similar features. • Combinations of expressive media allow powerful communication. • Familiarity and skill with many expressive mediums provides an improved communication ability.
	Creativity	6	Artistic thinking	Frameworks & conventions Schools of thought Skill development	A6 <ul style="list-style-type: none"> • Playing with ideas, materials, tools & techniques reveals limitations, challenges and abilities. • Creative play helps define the boundaries of possibility. • Testing artistic boundaries enlightens values, preferences & standards. 	B6 <ul style="list-style-type: none"> • Artistic genres and philosophical thought vary from culture to culture. • Exploring other cultures allows an understanding and connection with 'the other'. • Studying the expressive techniques of others broadens creative options. 	C6 <ul style="list-style-type: none"> • Artistic frameworks, devices & conventions provide foundations for creativity. • Schools of thought & expression were created through revolution & evolution. • Historical expression & thought provide foundations for innovation. 	D6 <ul style="list-style-type: none"> • Artistic thinking influences personal lifestyle preferences. • Advanced artistic expression & communication require discipline, perseverance & resilience. • Artistic thinking informs & distils personal opinion. 	E6 <ul style="list-style-type: none"> • Artistic expression requires insights into individual & mass behaviour. • Artistic thinking can interpret human behaviour in unique & enlightening ways. 	F6 <ul style="list-style-type: none"> • Artistic thinking influences popular lifestyle preferences. • Artistic thinking is a springboard for engagement & communication,

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Creativity	7	Critical thinking	Cause & effect Fact & opinion Options & choices Socio-political history	A7 <ul style="list-style-type: none"> Experts have advanced understanding, experience and skill in their field of expertise. A society typically respects experts. Highly functioning societies seek the opinion of experts to inform political and commercial decisions. Well-researched facts and data predominantly influence the opinion of experts. When seeking expert opinion, several sources help to ensure a balance of bias. Social media tends to provide information and opinions that match our preferences. Social media can sensationalise and catastrophise news reporting. 	B7 <ul style="list-style-type: none"> Socrates was a classical Greek philosopher credited as a founder of Western philosophy. Socrates developed a filter to determine the worth of another's opinion. To be highly regarded, an opinion needed to pass three tests <ol style="list-style-type: none"> Is it true? Is it good? Is it useful? 	C7 <ul style="list-style-type: none"> There are issues involving rights, roles and responsibilities of individuals in relation to broader society. Political institutions meet needs and wants of individuals and society. The various levels of governments are organised to affect their major responsibilities. What citizenship is. There are means by which citizens can monitor, evaluate and influence actions of their government. The roles of laws, courts of law, and judges. Major political systems have similarities & differences. There are different strategies for resolving conflict. 	D7 <ul style="list-style-type: none"> The impact of decisions on others can influence a person's quality of life. Maslow's hierarchy of needs helps to distinguish between needs and wants. Knowing the difference between needs and wants helps to prioritise everyday choices. Knowing the difference between needs and wants helps to rank the relevance of issues. A desire for self-gratification can strongly influence choices. Popular opinion can strongly influence choices. Applying the Socratic filter to popular opinion can support rational decisions. 	E7 <ul style="list-style-type: none"> The cultural characteristics of different regions and people. Different cultures meet human needs and concerns in similar & different ways. Cultural contributions from various groups have helped form a national identity. The elements of culture. The elements of a belief system. The principle tenets of major world religions. The advantages and disadvantages associated with cultural diversity. Cultural diffusion. 	F7 <ul style="list-style-type: none"> An emotion is not a thought. Emotions connect people to the world around them. Understanding emotions helps to understand the connection to others. An important aspect of critical thinking is the ability to step back from and consider emotional responses to information. Self-esteem is a response to the opinion of others. Self-perception influences relationships. 	G7 <ul style="list-style-type: none"> Critical thinking is enhanced by the following steps. <ol style="list-style-type: none"> Recognise feelings. Create a distance from the story. Check for emotional language. Check for emotional images. Check for exaggeration. Check for manipulation and its motivation. Check facts, and figures a fair presentation of facts. Check for gaps in information. Check other points of view. Form an opinion of truth, impact and control. Media broadcasts evoke different responses according to levels of truth, impact and control.

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Creativity	8	Design Engineering solutions Form & function Materials & properties	A8 <ul style="list-style-type: none"> • A designer knows the world through making and learns by doing. • Design begins with setting a strategic intention. • A designer fails quickly and often, with progressive modifications leading to success. • A designer pays attention to detail. 	B8 <ul style="list-style-type: none"> • Everyone designs who devises courses of action aimed at changing existing situations into preferred situations. • Design thinking can be applied to systems, procedures, protocols and customer/user experiences 	C8 <ul style="list-style-type: none"> • A tool is a material object used to make a job easier. • A technique is a process to make a job easier. • Tools and techniques generally make our lives easier. • Tools and techniques are sometimes used for harmful purposes or have harmful consequences. 	D8 <ul style="list-style-type: none"> • You can design the way you lead, manage, create & innovate. 	E8 <ul style="list-style-type: none"> • Optimal design needs cross-disciplinary inquiry to facilitate innovation. 	F8 <ul style="list-style-type: none"> • Multi-disciplinary teams discover, define, develop and deliver solutions. • Designer teams engage targeted users to gain insights on relevance & application. 	G8 <ul style="list-style-type: none"> • Developing, badging & marketing a solution or product is a systematic process requiring diverse expertise.
	9	Solutions thinking	Mathematics Conventions Logic Pattern	A9 <ul style="list-style-type: none"> • The ability to compute algorithmically is a fundamental life skill. • The application of Mathematics can be found in all aspects of functional life. • Acquiring computation skills enhances personal competence. 	B9 <ul style="list-style-type: none"> • To function optimally, everyone needs to calculate, measure, estimate and verify. • Mathematics allows biological, cultural and financial comparisons and contrasts to be measured, analysed & synthesized. • Mathematics allows a greater understanding of our physical world and its place in the universe. 	C9 <ul style="list-style-type: none"> • Mathematics has universal conventions, symbols and systems. • An understanding of the universal conventions, symbols & systems of mathematics is empowering. 	D9 <ul style="list-style-type: none"> • Checking the authenticity of financial transactions is a desirable skill. • Competence with weights and measures is necessary for food preparation. • Estimation is a valuable prediction and cross-check of facts. • Knowledge of forces and levers is useful for daily functionality. • Algebra and geometry are useful for determining elusive values. 	E9 <ul style="list-style-type: none"> • Mathematics helps quantify society's needs & wants and the design solutions to meet them. • Mathematics enhances both sophistication and elegance in structural design solutions. 	F9 <ul style="list-style-type: none"> • Understanding the universal conventions, symbols & systems of mathematics enhances transnational transactions & collaborations. • Mathematics is integral to all project work involving teams, logistics and production.

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Creativity	10	Solutions thinking	Sciences	A10	B10	C10	D10	E10	F10	G10
			Information management Data synthesis & analysis Methodology & technique	<ul style="list-style-type: none"> Force has both strength and direction. An object at rest typically has multiple forces acting on it, the sum of which gives zero net force. Forces that do not sum to zero can cause changes in an object's speed or direction of motion. Objects in contact exert forces on each other. Understanding force contributes greatly to an understanding of how our bodies function. 	<ul style="list-style-type: none"> Communities consist of interdependent organisms in a given place. Populations live in a variety of habitats, and change in those habitats affects the organisms living there. For any particular environment, some kinds of organisms survive well, some survive less well, and some cannot survive at all. 	<ul style="list-style-type: none"> Systematic approaches include observing, wondering, inquiring, researching, empathising, speculating, predicting, gathering data, analysing, objectifying, simplifying, classifying, quantifying, synthesising, formulating, drafting, prototyping, , trialling, testing, challenging, modifying, verifying and articulating. 	<ul style="list-style-type: none"> Systematic approaches help identify authentic needs and solutions. 	<ul style="list-style-type: none"> All animals need food in order to live and grow. Plants need water and light to live and grow. Plants and animals can change their environment. Humans use natural resources for everything they do. Things that people do to live comfortably can affect the world around them. People can make choices that reduce their impacts on the land, water, air, and other living things. 	<ul style="list-style-type: none"> Scientific collaborations can provide synergetic solutions to complex problems. Scientific collaborations progress well if they are underpinned by explicit agreements, such as memoranda of understandings, including ethical standards. 	<ul style="list-style-type: none"> Systems, tools and techniques can be improved over time. Solutions can be represented graphically and through models. Solutions, once verified, need promoting, organising and managing.