

Information and Communications Technology Continua

draft

The continua will remain in a draft format so that, through consultation with users, it can be modified in its online format to meet the ongoing needs of teachers and to reflect changes in ICT as they occur. The practical examples on the website can be added to as teachers engage with them.

It is intended that the continua be used as a learning scaffold by teachers and other interested staff when developing personal learning and development plans that incorporate ICT.

The development of the continua is an outcome of teacher requests for guidance beyond the minimum standards and to also recognise that many teachers are already operating at the various points along the continua. The continua's focus is on learning and teaching, not skills.

There will not be any formal process of recognition or profiling of teachers who engage in activities aligned to the continua.

Individual teachers or groups of teachers can access the Coordinators at the Learning and Development Centres – Technology and the Centres of Excellence – Technology, Mathematics and Science for assistance with the planning and conduct of professional learning activities in conjunction with the continua.

<http://www.education.qld.gov.au/tal/2001/cont.htm>

Key Area: Decision Making & Planning

Goal: Active participation in the planning and management of ICT at a school level that reflects systemic priorities and a shared vision within the school setting.

Level	Goal	Descriptors	Examples
Minimum	The teacher demonstrates knowledge of the school's ICT Planning and Management Practices.	The teacher is aware of the professional development strategies and opportunities within the school.	<ul style="list-style-type: none"> Attends information sessions discussing school planning documents; Regularly checks a calendar of professional development events.
Developmental	The teacher provides input to the school planning process and participates in related in-service activities.	<p>The teacher</p> <ul style="list-style-type: none"> Provides input into the development of the Learning Technology section of the Annual Operational Plan; Implements the school plan as it applies in their area of responsibility; Responds and provides feedback to drafts of the Learning Technology section of the Annual Operational Plan; Participates in the review process of the school-based ICT management plan (eg: Management and Learning Technology Plan). 	<p>Professional Practices:</p> <ul style="list-style-type: none"> Completes surveys and questionnaires which contribute to the school planning process; Attends meetings associated with school ICT planning; Discusses continuity of ICT integration across the school. <p>Classroom Practices:</p> <ul style="list-style-type: none"> Aligns practice in the classroom with the school plans.
Innovator	The teacher actively participates in the planning and management of ICT at a school level that reflects systemic priorities and a shared vision within the school setting.	<p>The teacher:</p> <ul style="list-style-type: none"> Assumes a management role in the planning and implementation of the Learning Technology section of the Annual Operational Plan; Develops and facilitates professional development programs for school-based staff that relate to school-based planning; Manages own learning and development plan; Participates in the formulation of a school budget that corresponds to school planning (eg. Management and Learning Technology Plan); Manages physical resources within classrooms and across the school. 	<p>Professional Practices:</p> <ul style="list-style-type: none"> Participates in ICT committees that involve decision-making; Reviews and implements school purchasing procedures in line with the management of physical resources; Monitors and analyses usage patterns to assist resource allocation; Shares management practices, ideas and documents within the school and in on-line communities; Seeks professional development opportunities that match personal needs; <p>Classroom Practices:</p> <ul style="list-style-type: none"> Designs a review and evaluation process to be able to monitor the progression and effectiveness of an ICT project in the classroom.
Leader	The teacher consistently demonstrates leadership and management skills in the design and development of policies, procedures and events that involve ICT planning at a range of levels within the profession.	<p>The teacher:</p> <ul style="list-style-type: none"> Develops, facilitates and/or leads professional development opportunities within the educational community. Forms networks with expert people from within the educational community and the wider community. Advocates and lobbies for change 	<p>Professional Practices:</p> <ul style="list-style-type: none"> Mentors (formally and informally) teachers across educational communities or in an online community about school ICT planning and management; Teaches peers about the value of effective processes and planning in the management of ICT at workshops or teacher conferences; Publishes critical reviews and innovations in planning practices. <p>Classroom Practices:</p> <ul style="list-style-type: none"> Demonstrates leadership in effectively managed ICT learning environments in accordance with the school's plan.

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Key Area: Effective Learning And Teaching Through The Use Of ICT

Goal: The teacher, school and community actively participate in achieving a wide variety of learning outcomes using ICT to transform learning environments.

Level	Key Area Statement	Understands the Learner	Understands the Learning Process	Supportive and Challenging Environment	Worthwhile Partnerships	Social and Cultural Contexts	Examples
Minimum	The teacher uses ICT in learning environments which are teacher directed and have specific outcomes	<ul style="list-style-type: none"> Identifies students prior experience with and attitudes Adapts computer based activities for students with special abilities, needs and interests Accommodate the learner as an individual and independent learner as well as a member of a group Provides a variety of computer based learning activities to cater for diversity of learning styles 	<ul style="list-style-type: none"> Is aware of how computers can support all elements of the learning process: perception, processing and (re) presentation Provides a clear focus and purpose for computer based activities Balances guided and self directed activities 	<ul style="list-style-type: none"> Create a warm supportive atmosphere which fosters risk taking Open ended tasks to promote problem solving Uses the technology to extend the learning environment beyond the walls of the classroom. 	<ul style="list-style-type: none"> Facilitate peer tutoring and cooperative learning processes Utilise support staff, teacher aides, parents and community members Identify and liaise with a more experienced teacher in the use of learning technology 	<ul style="list-style-type: none"> Provides opportunities for learners to share their perceptions of technology in society Reflects on the impact of new technologies and cultural change on the curriculum, structure and organisation of schooling, and the nature of childhood 	<ul style="list-style-type: none"> Participates in ongoing discussions and experimentation related to the use of computers in the curriculum Is aware of the principles of effective learning and teaching in his/her use of learning technology.
Developmental	The teacher is actively involved with students in the design of learning environments to broaden and maximise learning outcomes through the use of ICT	<ul style="list-style-type: none"> Creates opportunities for students to share and develop skills and knowledge Consults with students when developing classroom program Creates opportunities for creative potential of learners Identifies and acts on own professional development and resource needs 	<ul style="list-style-type: none"> Creates opportunities for students to identify problems and appropriate tools for solution Identifies appropriate resources for students 	<ul style="list-style-type: none"> Negotiates with students to achieve a broader range of learning outcomes 	<ul style="list-style-type: none"> Consults with students appropriate partners 	<ul style="list-style-type: none"> Makes teaching 	<p>Professional Practices:</p> <ul style="list-style-type: none"> Identifies and acts on own professional development opportunities at school and in the local area; Participates in curriculum and policy documents; Engages in professional communities; Identifies and negotiates resources dealing with pedagogy and curriculum uses of ICT; Adapts and modifies classroom practice; <ul style="list-style-type: none"> Begins to engage in conversations at school about teaching learning and assessment. <p>Classroom Practice:</p> <ul style="list-style-type: none"> Begins to negotiate some elements of units of work; Broadens the range of resources available to students; Begins to explore project-based learning and problem solving tasks by conducting an investigation, choosing sources of information and mode of publication; Begins to access a wider variety of ICT tools that support open ended tasks; Takes part in telecommunication projects or online digital events in local, national and global communities; Identifies opportunities to make a contribution to the community with their activities, ideas and products; Begins to negotiate the make up of groupings, class collaboration, level of teacher involvement and guidance within the classroom; Initiates peer tutoring practices with ICT; Introduces open-ended software where the focus is on just-in-time learning.
Innovator	The teacher is actively involved with the school community in the design and development of ICT learning environments which realise a wide variety of learning outcomes.	<ul style="list-style-type: none"> Assists students to identify skills and knowledge to be shared and developed Develops classroom program in full consultation with students Fosters creative potential of learners Acts as leader at a local level and takes responsibility for own professional development 	<ul style="list-style-type: none"> Identifies with students problems and appropriate learning technology tools Works with students in identifying and choosing appropriate resources 	<ul style="list-style-type: none"> Students use learning technology resources to achieve open-ended learning outcomes 	<ul style="list-style-type: none"> The classroom exhibits a range of learning partnerships developed through consultation 	<ul style="list-style-type: none"> The classroom 	<p>Professional Practices:</p> <ul style="list-style-type: none"> Participates in workshops and conferences; Engages in professional development of other staff; Participates in curriculum and pedagogical committees at school and district levels; Engages in professional communities dealing with pedagogy and curriculum uses of ICT; Adapts and modifies classroom practice; <ul style="list-style-type: none"> Engages in conversations at school about teaching learning and assessment. <p>Classroom Practices (teacher and the students):</p> <ul style="list-style-type: none"> Negotiate openly the approach to units of work; Make a list of available resources to aid project-based learning; Access a variety of ICT tools that support open ended tasks; Construct meaning by working in groups or independently on problem based learning activities that requires active use of appropriate ICT tools; Take part in telecommunication projects in local, national and global communities make a contribution to the community with their activities, ideas and products.

<p>Leader</p>	<p>The teacher demonstrates a high level of leadership in the educational community, encouraging active participation and innovation in the design and development of ICT learning environments which realise a wide variety of learning outcomes.</p>	<ul style="list-style-type: none"> • Acts as leader in professional development across the educational community • Develops and identifies best practice for a wider audience 	<ul style="list-style-type: none"> • Leads in educational communities in the design and development of ICT rich learning environments • Develops and identifies appropriate resources for a wider audience 	<ul style="list-style-type: none"> • Leads in educational communities in developing, identifying and promoting opportunities for challenge and open-ended learning outcomes 	<ul style="list-style-type: none"> • Leads in educational communities in developing, identifying and promoting opportunities for challenge and open-ended learning outcomes 	<ul style="list-style-type: none"> • Leads in developing and implementing globalisation into the educational community 	<p>Professional Practices:</p> <ul style="list-style-type: none"> • Participates in conferences and workshops related to ELT & ICT at conferences; • Publishes in professional journals; • Leads a school which has open doors to people from many educational communities; • Leads a range of curriculum projects that focus on local or global issues and may involve local or global partners <p>Classroom Practices:</p> <ul style="list-style-type: none"> • Takes a leadership role in organising and maintaining online professional communities dealing with pedagogy and curriculum uses of ICT; • Contributes to curriculum and pedagogical committees at school and system level; • May teach at pre-service or post graduate university courses; • Mentors colleagues formally and or informally; • Involves people from the wider community and school systems from other states. <p>Classroom Practices:</p> <ul style="list-style-type: none"> • Creates exemplary conditions for challenge and innovation in teaching practices and provides opportunities for sharing these through classroom visits; • Leads conversations at school about teaching, learning and assessment across the school community; • Manages a reflective classroom learning environment; • Provides equitable access to a variety of open ended tools; • Employs adaptive technologies that cater for a range of learning styles and needs related to age, gender, disability ethnicity and distance. • Uses technologies to involve other people in the classroom in variety of roles such as content area specialist, mentor, information source or tutor, and documents the process.
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Key Area: ICT & Curriculum inc. Classroom Planning & Management

Goal: Learning plans are developed which reflect an understanding of the way ICT may be used to support and enhance student learning across a range of teaching and learning activities, using a variety of management strategies.

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Level		Selecting Worthwhile activities to achieve curriculum goals and address student needs	Organising Worthwhile activities	Classroom Management	Review and Evaluation	Examples
Minimum	The teacher demonstrates knowledge, understanding and an awareness of the use of ICT in the curriculum.	<ul style="list-style-type: none"> is familiar with Education Queensland's Computers in Learning policy and guidelines explores a range of software types and their possible applications. identifies software appropriate for a variety of student needs within their class uses prepared evaluations of software packages and matches software with curriculum goals 	<ul style="list-style-type: none"> organises student access to CD Roms and Internet based resources for research projects or for special education students, organises access to appropriate adaptive technologies delivers and assesses student learning activities using at least one curriculum software package and one generic software package designs computer based learning tasks which have explicit links to curriculum goals and learning outcomes 	<ul style="list-style-type: none"> recognises the various models of computer access appropriate for student activities (eg whole class, small group, individual) adjusts students access to computers in response to the nature of the learning activity implements procedures which provide students with flexible (vary duration) access; provide students with regular access; and meet the need/s of curriculum activities. organises student use of computers as part of the planned learning activities given the available resource base. 	<ul style="list-style-type: none"> reflects on the planned learning activities which incorporate the use of computers identifies the strengths and weaknesses of the activity and the resources shares their learning experiences with a colleague 	<ul style="list-style-type: none"> The teacher prepares a portfolio containing two learning activities (either individually or collaboratively produced), which includes: <ul style="list-style-type: none"> one based on curriculum software; one based on generic software; consideration of classroom management issues; consideration of the <i>Guidelines for the use of computers in learning</i> and policy.
Developmental	The teacher will integrate the use of ICT into their planning, teaching, assessment and reporting practices within comprehensive units of work.	<ul style="list-style-type: none"> Adapts curriculum materials to incorporate ICT Identifies the curriculum areas which would benefit from the integration of ICT Adapts existing ICT to incorporate preferred teaching styles and strategies 	<ul style="list-style-type: none"> Uses specialised software/ planning frameworks to plan classroom activities Uses ICT throughout the learning process Uses ICT appropriately across all key learning areas Consults with other teachers to identify prior and future intended use of ICT Collaborates with specialist teachers to support their use of ICT to achieve desired unit outcomes 	<ul style="list-style-type: none"> Promotes small group interaction through management of ICT Facilitates peer support and peer mentoring through the management of ICT Provides opportunities for students to initiate information gathering through the use of ICT 	<ul style="list-style-type: none"> Uses ICT to assess student learning throughout the learning process Reflects on the achievement of student learning outcomes and their relationship to ICT Uses professional standards of presentation when reporting/ assessing using ICT 	<p>Professional Practices:</p> <ul style="list-style-type: none"> Seeks advice from peers on strategies and resources for the integration of ICT into the classroom; Searches for and utilises electronic information and resources to assist their planning for the use of ICT; Reflects upon their performance in alignment with the standards for teacher use of ICT; <p>Classroom Practices:</p> <ul style="list-style-type: none"> Plans for the integration of ICT into units of work to achieve specific outcomes in various KLA s; Uses a variety of approaches such as peer-tutoring, rostered groupings in the management of access to ICT resources in the classroom; Evaluates the effectiveness of the use of ICT in particular units of work; Allows students to locate information to suit their needs in an open-ended, constructivist task. Uses ICT for a variety of tasks in a unit of work.
Innovator	<p>The teacher restructures curriculum and learning environments through the transparent and transformational use of ICT.</p> <p>The teacher demonstrates consistent participation in sharing, mentoring, and modelling the use of ICT in a variety of learning environments.</p>	<ul style="list-style-type: none"> Uses real life, hands on experiences Has student learning take place in a wider learning community Enhances student opportunities to engage in higher-level thinking opportunities with ICT 	<ul style="list-style-type: none"> Facilitates a student-centred approach to learning Students communicate findings with real audiences Designs ICT learning experiences that are open ended and often problem-based Develops programs which are project based and incorporates a constructivist approach 	<ul style="list-style-type: none"> Establishes classroom roles allowing students and teachers to share learning and leadership Facilitates the interaction between students and a mentor or expert Uses a range of flexible management strategies 	<p>Critically selects professional practice to make informed decisions regarding the use of ICT in support of student learning</p>	<p>Professional Practices:</p> <ul style="list-style-type: none"> Dialogue with their peers by discussing effective practice at a year level meeting or joining an observe or share management practices; specific curriculum applications of ICT such as KLA s; identifies a need, locates web resources and evaluates them for suitability to a unit of work; Contributes to the selection of a school software purchase to address a specific need. <p>Classroom Practices:</p> <ul style="list-style-type: none"> Employs a variety of collaborative strategies that incorporate the use of ICT; Engages students in cognitively challenging activities that incorporate ICT such as reflective writing, addressing questions the teacher can't answer, problem solving and discussing results.
Leader	The teacher consistently shows leadership in policy development, sharing, mentoring, and modelling the way ICT may be used to support and enhance student learning across a range of learning activities using a variety of management strategies.	<ul style="list-style-type: none"> Shares effective classroom practice and worthwhile activities with a wide, relevant audience Publishes effective practice articles and exemplars Identifies and facilitates sharing of existing effective practice and exemplars 	<ul style="list-style-type: none"> Experiments and innovates with new technologies and teaching/learning methodologies to meet identified learning needs Mentors other teachers formally and informally as they explore new technologies and methodologies 	<ul style="list-style-type: none"> Leads in educational communities in demonstrating effective classroom management practice to achieve and extend goals 	<p>professional practice to make informed decisions regarding the use of ICT in support of student learning</p>	<p>professional association journals;</p> <ul style="list-style-type: none"> posts on departmental sharing sites (eg: TIPS); in tertiary courses; posts that align learning needs, curriculum and classroom management; Appears as a guest in on-line communities; Mentors other teachers to support the transformation of practice; Acts as a critical friend in school-based action research into the use of ICT. <p>Classroom Practices:</p> <ul style="list-style-type: none"> Establishes and leads collaborative learning activities such as an on-line project; Fosters meta-cognition as it relates to the use of ICT to support higher-order thinking and critical literacy.

Key Area: ICT Knowledge, Skills, Processes and Attitudes

Goal: Teachers will be life-long learners who continually develop and expand operational skills, conceptual knowledge and appropriate attitudes towards the uses of ICT in educational settings and society.

Level	Goal	Descriptors	Examples
Minimum	<ul style="list-style-type: none"> A teacher will produce documents for their own use, for example, timetables, markbooks, certificates, worksheets and letters. A teacher will be able to perform IT Skills on the computer platform located in their own classroom or school setting. 	Uses hardware, software and telecommunications to complete practical tasks.	<ul style="list-style-type: none"> Recognises basic system components and connections, operates a printer - changes ribbon or cartridge, loads paper or envelopes, recognises input devices, determines the configuration, starts up and shuts down system or software, understands basic operating system functions; Applies software/hardware to complete practical tasks; Performs basic word processing operations; Is aware of categories of software: publishing, word processing, spreadsheet, database, multimedia, communications Uses basic functions of a WWW browser to search and locate information (eg activate link, move forward and back, print page, etc) Sends and receives an email message
Developmental	<p>The teacher demonstrates a functional knowledge of ICT:</p> <ul style="list-style-type: none"> Concepts; Tools; Systems; Processes; and Specialist applications. <p>The teacher operates legally and ethically:</p> <ul style="list-style-type: none"> In accordance with policy and guidelines; and In relation to ICT in society. 	<ul style="list-style-type: none"> Applies ICT to classroom use for a range of purposes; Assists in identifying management and maintenance issues with ICT in the classroom; Follows directions of ICT in education; Maintains a level of appropriate skills and knowledge to support classroom practice; Participates in skills development opportunities related to ICT; Follows EQ guidelines in relation to appropriate practice; Participates in a teacher network within the school community; Considers current issues of ICT in society and adapts appropriate models for the classroom. 	<p>Professional Practices:</p> <ul style="list-style-type: none"> Attends directed learning and development opportunities to develop their skills and knowledge; Demonstrates awareness of professional communities which share expertise in ICT; Accesses colleagues for assistance with ICT skills development; Models appropriate practices in a school community; Utilises or contributes to electronic publishing for the school and wider community; <p>Classroom Practices:</p> <ul style="list-style-type: none"> Demonstrates appropriate use of ICT; Incorporates new skills and knowledge of ICT into classroom practice; Demonstrates awareness of acceptable use of ICT; Develops a level of appropriate knowledge and skills of ICT for the classroom; Assists in the management of maintaining ICT in classrooms; Selects appropriate ICT tools for specific classroom purposes; Develops and implements classroom procedures to ensure compliance with EQ and society acceptable use policies.
Innovator	<p>The teacher critically reflects upon their functional knowledge of ICT:</p> <ul style="list-style-type: none"> Concepts; Tools; Systems; Processes; and Specialist applications. <p>The teacher addresses social, legal and ethical issues:</p> <ul style="list-style-type: none"> In accordance with policy and guidelines; and In relation to ICT in society. 	<ul style="list-style-type: none"> Keeps up to date with the directions of ICT in education; Maintains a high level of appropriate skills and knowledge to support classroom practice and management of ICT; Supports learning and development opportunities related to innovation in ICT; Provides direction and guidance for teacher groups in accordance with EQ guidelines; Considers directions of ICT in society and adapts appropriate models for the classroom; Participates and contributes to teacher networks within the school community. 	<p>Professional Practices:</p> <ul style="list-style-type: none"> Attends self-selected learning and development opportunities to develop their skills and knowledge; Provides opportunities for ICT skills development of other staff; Contributes to an online professional community which shares expertise in ICT; Assists colleagues with ICT skills development; Models appropriate ICT skills and knowledge in a school community; Assists in electronic publishing for the school and wider community; Assists in the management of a networked school community. <p>Classroom Practices:</p> <ul style="list-style-type: none"> Models the effective and appropriate use of ICT; Incorporates new skills and knowledge of ICT into classroom practice; Discusses acceptable use related to ICT with students, colleagues and parents; Maintains a high level of appropriate knowledge and skills to provide leadership in the classroom; Assists in the management of maintaining ICT in classrooms.
Leader	<p>The teacher demonstrates a high level of leadership in the application of specialist knowledge addressing:</p> <ul style="list-style-type: none"> The diversity of ICT; The management of ICT systems; The use of ICT for learning; Social, legal and ethical issues; Systemic policy and guidelines; and ICT in society. 	<ul style="list-style-type: none"> Influences change and keeps up to date with directions of ICT in education; Maintains a high level of appropriate skills and knowledge to provide effective leadership and management of ICT; Directs learning and development opportunities related to innovation in ICT; Provides direction and guidance for school communities in accordance with EQ guidelines; Examines directions of ICT in society and adapts appropriate models for educational communities; Establishes and maintains networks with experts in the wider community. 	<p>Professional Practices:</p> <ul style="list-style-type: none"> Presents workshops related to ICT innovations at conferences; Publishes articles related to ICT in professional journals; Hosts a professional network to support ICT innovation in school communities; Leads in a model school which has open doors to people from educational communities; Takes a leadership role in an online professional community which shares expertise in ICT; Mentors colleagues formally and/or informally; Maintains contact with an industry expert; Directs and oversees appropriate practices in a school community; Leads in the management of a networked school community; Directs electronic publishing for the school and wider community. <p>Classroom Practices:</p> <ul style="list-style-type: none"> Directs innovation in the use of ICT in classrooms; Provides opportunities for sharing ICT knowledge through school/classroom visits; Identifies learning and development needs for skilling staff; Facilitates skill and knowledge development activities; Models the effective and appropriate use of ICT for colleagues; Demonstrates a high level of appropriate knowledge and skills in the classroom to provide leadership in the school.