ICT Teacher Professional Development Matrix DRAFT

		Emergent	Technology Literacy	Knowledge Deepening	Knowledge Creation
		EMERGENT	**TECHNOLOGY LITERACY**	**KNOWLEDGE DEEPENING**	**KNOWLEDGE CREATION**
Policy	Policy Awareness	Unaware of national policies regarding ICT and learning.	Awareness of national and international policies regarding ICT and learning.	Compare current national ICT policy against international best practice in order to identify good classroom practice.	Embed policy and research into classroom practice to improve student learning outcomes.
	Classroom Practice	Create lesson plans without any reference to ICT policy and practice.	Specify how policy statements correspond to characteristics of classroom practices and utilize these in their own planning. (I.A.1.)	Possess a deep knowledge of national policies and social priorities, and be able to design, modify and implement classroom practices that support these priorities.	Design, implement, and modify school level education reform programs that implement key elements of national education reform policies. (II.A.1.)
		BASIC KNOWLEDGE	**BASIC KNOWLEDGE**	**KNOWLEDGE APPLICATION**	**21st CENTURY SKILLS**
Curriculum & Assessment	Curriculum Planning	Knowledge of curriculum standards and standard assessment procedures.	Match specific curriculum standards to particular software packages and computer applications and describe how these standards are supported by these applications. (I.B.1.)	Design units and classroom activities that integrate a range of ICT tools and devices to support student learning.	Design units and classroom activities that integrate a range of ICT tools and devices to help students acquire the skills of reasoning, planning, reflective learning, knowledge building and communication. (III.B.3.)
	Learning Environment	Identify key concepts and processes in the subject area and awareness of subject-specific tools.	Identify key concepts and processes in the subject area, describe the function and purpose of subject-specific tools and how they support students' understanding of these key concepts and processes.	Identify key concepts and processes in the subject area, describe the function and purpose of subject-specific tools and how they support students' understanding of these key concepts and processes and their application to the world outside the classroom. (II.B.1.)	Identify and discuss how students learn and demonstrate complex cognitive skills, such as information management, problem solving, collaboration, and critical thinking. (III.B.1.)
	Student Experience	Focus on basic ICT skills acquisition for students.	Help students acquire ICT skills within the context of their courses. (I.B.2.)	Help students use ICT to acquire the skills of searching for and managing information in the context of real world problems.	Help students use ICT to acquire the skills of searching for, managing, analyzing, integrating, and evaluating information to construct their own understandings. (III.B.2.)
	Assessment	Aware of formative and summative assessment procedures.	Use ICT to assess students' acquisition of school subject matter knowledge using both formative and summative assessments. (I.B.3.)	Develop and apply knowledge- and performance-based rubrics that allow teachers to assess students' understanding of key subject matter concepts, skills and processes. Use ICT to provide students with feedback on their progress. (II.B.2.)	Help students develop both knowledge- and performance based rubrics and apply them to assess their own understanding of key subject matter and ICT skills and concepts and the understanding of other students, as well as use these assessments to refine their products and learning. (III.B.3.)
	Communication and Collaboration	Aware of communication and collaboration tools.	Uses communication and collaboration tools.	Use communication and collaboration tools to connect to the world outside the classroom.	Help students use ICT to develop communications and collaboration skills (III.B.4.)
	Special Educational Needs	Aware that ICT can enhance the learning opportunities of students with special educational needs.	Use of ICT focuses on the development of literacy and numeracy for students with special educational needs.	Use ICT diagnostic tools, assistive technologies and ICT resources to address curriculum objectives with students with special educational needs.	Embed ICT in all aspects of special educational needs teaching and learning. Assistive technologies are incorporated into all levels of school planning.
		DIDACTIC APPROACH	**INTEGRATE TECHNOLOGY**	**COMPLEX PROBLEM SOLVING**	**SELF MANAGEMENT**
Pedagogy	Planning	Use didactic teaching, to support students' acquisition of school subject matter knowledge. (I.C.1.)	Incorporate appropriate ICT activities into lesson plans so as to support students' acquisition of school subject matter knowledge. (I.C.2.)	Design unit plans and classroom activities so that students engage in reasoning with, talking about, and using key subject matter concepts while they collaborate to understand, represent, and solve complex real-world problems, as well as reflect on and communicate solutions. (II.C.4.)	Design online materials and activities that engage students in collaborative problem solving, research, or artistic creation. (III.C.2.)
	Problem Based Learning	Aware of problem solving techniques.	Identify or design simple problem scenarios incorporating key subject matter concepts using basic ICT tools.	Identify or design complex, real-world problems and structure them in a way that incorporates key subject matter concepts and serves as the basis of student projects. (II.C.2.)	Explicitly model their own reasoning, problem-solving, and knowledge creation while teaching students. (III.C.1.)
	Student Experience	Rudimentary usage of presentation software and digital resources.	Use presentation software and digital resources to support instruction when appropriate. (I.C.3.)	Implement collaborative, project-based unit plans and classroom activities, while providing guidance to students in support of the successful completion of their projects and their deep understanding and key concepts. (I.C.6.)	Help students design project plans and activities that engage them in collaborative problem-solving, research or artistic creation. (III.C.3.)
	Project Based Learning	Aware of the use of ICT for collaborative, project-based learning.	Use collaborative, project-based learning and ICT tools to support key subject matter concepts and processes.	Use collaborative, project-based learning and ICT tools to support student thinking and social interaction, as students come to a deeper understand key concepts, processes, and skills in the subject matter and their application and use to solve real world problems. (II.C.1. and 3.)	Use real world problems as a basis for collaborative, project based learning that facilitate student reflection on their own learning. (III.C.5)
	Communication and Collaboration	Aware of the use of ICT for communication and collaboration.	Structure unit plans so that open-ended tools and subject-specific applications will support students in their reasoning with, talking about, and use of key subject matter concepts and processes.	Structure classroom activities so that open-ended tools and subject-specific applications will support students in their reasoning with, talking about, and use of key subject matter concepts and processes while they collaborate to solve complex problems. (II.C.5.)	Help students incorporate multimedia production, web production, and publishing technologies into their projects in ways that support their ongoing knowledge production and communication with other audiences. (III.C.4.)
		NO ICT	**BASIC TOOLS**	**COMPLEX TOOLS**	**PREVASIVE TOOLS**
ICT	Productivity Tools	Unaware of the basic tasks and uses of word processors, presentation software and other digital resources.	Basic use of word processors, presentation software and other digital resources for classroom learning. (I.D.2. and I.D.3.)	Operate various open-ended software packages appropriate to their subject matter area, such as visualisation, data analysis, role-play, simulation and online reference. (II.D.1.)	Use open-ended software packages to support students' innovation and knowledge creation. (III.D.1.)
	Authoring Tools	Unaware of the use of graphic software and use a graphic software package to create a simple graphic display.	Describe the purpose and basic function of graphic software and use a graphic software package to create a simple graphic display. (I.D.4.)	Use an authoring environment or tools to design offline and/or online materials. (II.D.3.)	Use multimedia authoring tools (multimedia recording and production equipment, editing tools, publication software, web design tools) to support students' innovation and knowledge creation. (III.D.1.)
	Internet	Unaware of the uses of Internet and the World Wide Web.	Locate websites through a web browser by typing a URL or by using a search engine to conduct a keyword search. (I.D.5. and I.D.6.)	Evaluate the accuracy and usefulness of Web resources in support of project-based learning with the subject area. (II.D.2.)	Empower students to critically valuate the accuracy and usefulness of Web resources in support of their own learning.
	Communication and Collaboration	Use of email and text messaging for personal/social purposes.	Use common communication and collaboration technologies, such as email, text messaging, video conferencing, and web-based collaboration and social environments. (I.D.7. and I.D.11.)	Use search engines, social networks, and email to find people, resources for collaborative projects. (II.D.6)	Empower students to use search engines, social networks, and email to find people, resources for student led collaborative projects.
	Administration	Unaware of the use of ICT for student administration purposes.	Use networked record keeping software to take attendance, submit grades, and maintain student records. (I.D.10.)	Use a network and appropriate software to manage, monitor, and assess progress of various student projects. (II.D.4.)	Describe the function and purpose of virtual environments and knowledge building environments (KBEs) and use them to support increased knowledge and understanding of subject matter and the development of online and face-to-face communities. (III.D.3.)
	Student Learning	Locate off-the-shelf educational software packages and Web resources in isolation from curriculum activities.	Evaluate educational software including off-the-shelf packages, tutorial, drill and practice software and Web resources for their accuracy and alignment with curriculum standards and match them to the needs of specific students. (I.D.8. and I.D.9.)	Use ICT to communicate and collaborate with students, peers, parents, and the larger community in order to nurture student learning. (II.D.5.)	Describe the function and purpose of planning and thinking tools and use them to support students' creation and planning of their own learning activities and their continuous reflective thinking and learning. (III.D.3.)
		NO ICT USAGE	**STANDARD CLASSROOM**	**COLLABORATIVE GROUPS**	**LEARNING ORGANISATION**
Organisation and Administration	Teacher Understanding	Use of computer laboratory for isolated activities not linked to classroom practice.	Integrate the use of a computer laboratory into ongoing teaching activities. (I.E.1.)	Place and organise computers and other digital resources within the classroom so as to support and reinforce learning activities and social interactions. (II.E.2.)	Play a leadership role in creating a vision of what their school might be like with ICT integrated into the curriculum and classroom practices. (III.E.1.)
	ICT Integration	No use of ICT resources within the classroom.	Manage the use of supplemental ICT resources with individuals and small groups of students in regular classroom so as not to disrupt other instructional activities in the class. (I.E.2.)	Manage student project-based learning activities in a technology-enhanced environment. (II.E.2.)	Play a leadership role in supporting innovation in their school and continuous learning among their colleagues. (III.E.2.)
	Classroom Management	Emphasis on traditional teaching and learning paradigm (teacher centred classroom) with no integration of ICT.	Identify the appropriate and inappropriate social arrangements (whole class, small groups, and individual activities) to use with various technologies. (I.E.3.)	Create flexible classroom learning environments that integrate student centred activities and flexibly apply technology to support collaboration.	Create and implement a vision for the school as a learning organisation where innovation and continuous learning is enriched by ICT.
	Acceptable and Appropriate Use	Unaware of the need to behave ethically, responsibly and appropriately when using the Internet and other digital tools.	Aware of the issues relating to ethical responsible and appropriate uses of the Internet and other digital tools.	Develop procedures and policies for ethical, responsible and appropriate use of the Internet and other digital tools to support classroom learning.	Facilitate the ongoing development of ethical and responsible student approaches to the use of new technologies.
		NO ICT SKILLS	**DIGITAL LITERACY**	**MANAGE AND GUIDE**	**TEACHER AS MODEL LEARNER**
Professional Development	Planning	Unaware of the use of ICT to enhance teacher productivity.	Use ICT to enhance their productivity. (I.F.1.)	Use ICT to access and share resources to support their activities and their own professional development. (II.F.1)	Continually evaluate and reflect on professional practice to engage in ongoing innovation and improvement. (II.F.1.)
	Teacher Awareness and Participation	Unaware of how teachers can access and participate in online professional communities for teachers.	Aware of online professional communities for teachers.	Use ICT to access outside experts and communities to support their activities and their own professional development. (II.F.2.)	Use ICT resources to participate in professional communities and share and discuss best teaching practices. (III.F.2.)
	Informal Learning	Unaware of how ICT resources can support the acquisition of subject matter and pedagogical knowledge.	Use ICT resources to support their own acquisition of subject matter and pedagogical knowledge. (I.F.2.)	Use ICT to search for, manage, analyse, integrate, and evaluate information that can be used to support their professional development. (II.F.3.)	Use ICT to actively contribute and share information and resources that can be used to support professional development of peers.