MINISTRY OF EDUCATION

Enabling Innovation

Transforming Curriculum and Assessment

August 2012

In 2010, the Ministry of Education and stakeholders throughout the province began a process to help transform education in BC to better meet the needs of all learners. Transforming a system as complex as education takes time and to do it well involves extensive consultation, thorough research, thoughtful decision making, and detailed planning.

Over the past two years, the Province has used a variety of processes to consult broadly and gather advice about the best direction to take. There have been formal and informal consultations with provincial partners, school district-hosted sessions with local stakeholders, provincial and regional conferences and meetings, conversations with international experts, and online dialogue. These consultations have been complemented by inquiries into best practices in BC as well as a review of transformation plans from other parts of Canada and the world. In addition, in the fall of 2011, stakeholders were invited to respond to the directions and actions set out in the BC Education Plan.

In November 2011, a Curriculum and Assessment Framework Advisory Group was formed to provide advice on directions for curriculum and assessment. In the spring of 2012, the province held 12 regional working sessions to present ideas from the advisory group.

Through the advice of the provincial advisory group and the feedback from the 12 regional meetings, a clear goal has emerged: the Province needs a more flexible curriculum that prescribes less and enables more, for both teachers and students. It is clear that an education system redesigned with 21st century priorities in mind must remove the barriers that limit teachers' ability to innovate and personalize learning based on students' needs and the community context. As the conversations and consultations progressed, it became evident that innovative practices are underway in many pockets throughout the province. However, to truly transform education, the BC education system must empower innovation throughout the province.

The directions proposed herein envisage a school system focused on the competencies that will best prepare students for their futures and based on a curriculum that prescribes fewer but more important outcomes. At the same time, teachers will have more flexibility and freedom to innovate in order to personalize learning in their classrooms. Going forward, the task for the Ministry as it develops new curriculum and assessment guidelines is to remove barriers to personalizing instruction so that the curriculum is optimally manageable for teachers and allows them more freedom to find approaches that work for schools and students alike.

Recommendations from the Curriculum and Assessment Framework Advisory Group

In November 2011, a Curriculum and Assessment Framework Advisory Group was formed to provide advice on directions for curriculum and assessment in the province. The group comprised individuals from several partner groups and academic institutions. Their broad experience in and knowledge of the BC education system led to lively discussion of the possibilities for important changes to curriculum and assessment.

The advisory group met four times between December 2011 and April 2012. The following is a summary of their recommendations.

Guidelines for Curriculum Development

Discussions with the advisory group led to the following set of priorities and principles to guide changes to the provincial curriculum.

- **The Educated Citizen:** Provincial curricula should address the competencies implicit in the description of the Educated Citizen as presented in the Province of British Columbia's Mandate for the School System.
- **Learning Standards:** Provincial curricula should continue to mandate learning standards—what students are expected to know, understand, and be able to do. These learning standards should be fewer than prescribed in the current curriculum, rigorous, and they should emphasize higher-order concepts over facts to enable deeper learning and understanding.
- **Required Learning:** Curriculum should offer increased flexibility to allow students to pursue their passions and interests and to enable different and individual ways of learning. The amount and nature of required learning should change as students progress from Kindergarten to Grade 12.
- **Competencies:** Provincial curricula should focus on the development of cross-curricular and subject-specific competencies.
- **Flexible Instructional Design:** Provincial curricula should support creative approaches and be available in ways that support teachers in organizing learning standards in various configurations: in integrated or thematic units; in project-based learning approaches; in challenges (inquiries); by areas of learning; and, by competencies. Standards could be combined and integrated in various ways to create courses or learning experiences depending on student need and local context.
- **Implementation Support:** Support materials should be developed to support curriculum implementation. Curriculum resource materials developed in the field or by the Province should provide guidance for learning that is student-initiated, self-directed, inquiry-based, and interdisciplinary.

The advisory group also raised a number of issues that need consideration as curriculum decisions are made.

- **Vulnerable Learners:** The work on curriculum and assessment must consider vulnerable learners and learners with special needs during all steps of development.

- **Management:** A major challenge will be how to make the curriculum simple, elegant, and deep, while ensuring that there are no major gaps, that repetition is minimized, and that there is adequate support for beginning teachers or teachers new to the subject area.
- **First Peoples:** Curriculum writers need to consider the First Peoples principles of learning. The Ministry needs to ensure that First Nations ways of knowing are respected in all curriculum areas.
- **Equity:** In all of this work, we need to attend to the needs of the full range of students in BC schools, not just capable students whose social, economic, or geographic contexts enable access to valuable learning opportunities outside of school.

Guidelines for Structuring Curriculum

The advisory group recommended three phases of schooling based on their collective experience in the education system and knowledge of developmental stages: K–5; 6–9/10; and, 10/11–12. There was no consensus about whether the middle years should be 6–9 or 6–10. The pros and cons of each option are currently under discussion within the Ministry and in the field.

- **Formative Years (K–5):** This phase focuses on forming the knowledge, understanding, and skills for further learning. There is a strong emphasis on literacy, numeracy, and cross-curricular competencies.
- **Middle Years (6–9/10):** This phase offers more student choice to allow students to explore areas of passion. Students have opportunities to apply the strong foundational skills developed in the formative years to inquiries and project-based learning experiences that link their learning to the wider community.
- **Graduation (Transition) Years (10/11–12):** This phase offers opportunities for students to select areas of learning that capture their interest and support their transition to life beyond the K–12 system. Areas of learning will be available in ways that allow increased flexibility and choice, including opportunities to explore and apply skills in community and workplace environments. Consultations in the fall of 2012 will gather advice from stakeholders on ways to best support multiple pathways to graduation and, ultimately, what should be required to graduate.

Guidelines for the Development of Cross-Curricular Competencies

The advisory group considered a working list of five cross-curricular competencies with first-draft definitions: communication; critical thinking; creative thinking and innovation; personal responsibility and well-being; and, social responsibility. The advisory group confirmed the relevancy of the five competencies and helped determine the following guidelines for their development.

- Cross-curricular competencies should be clearly defined in terms suitable to both curriculum and assessment.
- The cross-curricular competencies need to be supported with descriptive continua and student samples, similar to performance standards, to describe and illustrate the developmental stages of each competency.
- The cross-curricular competencies should be clearly related to complex real-world tasks and performances.

Currently, researchers are developing summaries of recent literature on each competency. As well, the Ministry is consulting with provincial Aboriginal scholars and other partner groups to help build definitions that inform development in both curriculum and assessment.

The cross-curricular competencies encompass both cognitive learning (communication, critical thinking, creative thinking and innovation) and social and emotional learning (personal responsibility and well-being, social responsibility). The following are working definitions for each competency. Once the research and consultations are complete, draft definitions will be available for review.

- **Communication** is the imparting or exchange of information, experiences, and ideas through language, symbols, movement, or images to build a common understanding.
- **Critical Thinking** is focused on deciding what is reasonable to believe or do in a given situation.
- **Creative Thinking and Innovation** is the process of generating and implementing new ideas.
- **Personal Responsibility and Well-being** is taking responsibility for one's actions, being self-regulating, making ethical decisions in complex situations, accepting consequences, and understanding how one's actions affect others. Among other things, this competency includes financial literacy.
- **Social Responsibility** is being able to consider the perspective of and empathize with others, to recognize and appreciate diversity, to defend human rights, to solve problems in peaceful ways, and to contribute towards social, cultural, and ecological causes. Among other things, this competency includes collaboration.

Development of a Curriculum Prototype

A key task for the advisory group was to develop a prototype that would provide a common and effective organizational structure for curriculum that could also support variations across different areas of learning and age or grade levels. Several members of the advisory group and curriculum staff developed preliminary prototypes for various subject areas using existing provincial curricula. These prototypes were presented and discussed at regional working sessions and were successively refined based on the feedback received.

Curriculum Elements

During discussions with the advisory group, individuals expressed ideas about the importance of key concepts, disciplines, project-based and challenge-based learning, inquiry and the integration of learning areas, as well as how the curriculum format might best support planning, instruction, and assessment. They also identified the need for curriculum to be accessed, organized, and supported through electronic means (with an option to print as needed). These ideas led to the development of a curriculum prototype with five key elements: curriculum organizers; big ideas; learning standards; competency links; and, implementation links.

The following describes the function of each of the curriculum elements in the prototype.

- **Curriculum organizers** identify the structure of the curriculum discipline/or area of learning.
- **Big ideas** identify the key concepts of a strand in an area of learning.
- **Learning standards** describe what students are expected to know, understand, and be able to do. Learning standards will be high-level, rigorous, and fewer in number, allowing teachers more space to add learning activities based on student needs and interests.

- **Competency links** provide the competency continua, student samples, and a description of the competency as it relates to an area of learning.
- **Implementation links** provide additional information (written, visual, audio-visual) to clarify and support the curriculum (e.g., self-assessment for students, assessment demonstrations, inquiries and cross-curricular integration, curriculum goals and rationale, and learning resources). Discussion of what would be the most appropriate links is still in progress.

Curriculum Prototype

The curriculum prototype shown below is based on the current curriculum for Grade 7 science. Some learning standards were revised to address particular competencies. The prototype is meant to illustrate how curriculum would be structured using the curriculum elements; the content within the prototype below is only a placeholder. The development of the prototype is still in progress, with content and interactive features being developed and refined through consultations with subject-matter experts and other educators in the field. Further updates will be posted on the Ministry of Education's website.

DRAFT PROTOTYPE: Science – Year 7

CURRICULUM ORGANIZERS	Scientific Inquiry	Life Science	Physical Science	Earth Science
BIG IDEAS	**Scientists investigate the world around them in order to describe it, classify it, and test their ideas about it.**	**All living and non-living things are interconnected in ecosystems and all ecosystems are interconnected.**	**Matter has observable and measureable physical properties and those properties determine how matter is classified, changed and used.**	**The surface of the earth is constantly changing and no feature on earth is permanent.**
LEARNING STANDARDS	• test a hypothesis by planning and conducting an experiment that controls for two or more variables • create models that help to explain scientific concepts and hypotheses	• assess the roles of organisms as part of interconnected food webs, populations, communities, and ecosystems • assess the requirements for sustaining healthy local ecosystems • propose solutions to reduce human impact on a given ecosystem	• examine properties of matter and communicate observations in a variety of ways • classify substances as elements, compounds, and mixtures • measure substances and solutions according to pH, solubility, and concentration	• analyse the dynamics of tectonic plate movement and landmass formation • predict how given natural events help scientists understand earth's structure • propose solutions to technical problems (e.g., seismic upgrading to buildings near fault lines)

COMPETENCY LINKS	Communication	Critical Thinking	Creative Thinking and Innovation	Personal Responsibility	Social Responsibility
IMPLEMENTATION LINKS	For Students (Self-assessment)	Assessment Demonstrations	Inquiries, Cross-curricular Integration	K-12 Science (Goals and Rationale)	Learning Resources

Guidelines for Assessment and Reporting

In addition to curriculum, the advisory group also gave advice on assessment and reporting. They recommended that all assessment activities, whether province-wide or classroom-based, support ongoing student learning and focus on the five cross-curricular competencies as well as the learning standards.

Assessment

The advisory group recommended that assessment materials developed to support classroom learning should use multiple approaches, emphasizing student self-assessment and assessment for learning. Further, they recommended that the Ministry work with educators to create developmental continua and exemplars for each of the cross-curricular competencies, and that the Ministry refresh and add to existing performance standards to reflect changes to curriculum.

The advisory group discussed directions for provincial assessment leading to the following guidelines.

- There should be provincial assessments at elementary and secondary grades. What they will look like is to be determined.
- Provincial assessments should be designed to support learning by providing relevant, timely feedback.
- Provincial assessments should incorporate a wider variety of formats than at present, including performance tasks, structured inquiries, and classroom-based assessments.
- In elementary years, literacy and numeracy skills and competencies should be assessed.
- In secondary grades, increased emphasis should be placed on competencies and key areas of learning.

Further discussions on provincial assessment will need to occur once the curriculum is more fully developed and graduation requirements are identified.

Reporting

The advisory group recommended a shift in language use—from "reporting" to "communicating student learning"—to highlight the importance of ongoing communication between learners, teachers, and parents. As well, they recommended that teachers report at key times in the year on cross-curricular competencies and key concepts within areas of learning using clear performance-based language. The group discussed issues around using percentages and requiring letter grades at various levels. These issues were explored further during the regional meetings. The group pointed out the importance of self-assessment and flexibility in the ways that students can demonstrate their learning (e.g., documentation, samples of work, portfolios).

Summary: Curriculum and Assessment Advisory Group Recommendations

The work of the Curriculum and Assessment Framework Advisory Group has confirmed that provincial curricula should prescribe the minimum in terms of required learning. Teachers should be in the position of thinking about what they can add to curriculum to personalize it and make it more relevant to learners, not questioning how they can possibly cover it all. The proposed curriculum prototype uses this approach, minimizing the prescribed learning to maximize the possibilities for innovation, personalization, creative thinking, and collaboration based on the needs of diverse learners in diverse contexts. Given the advisory group's recommendations, ongoing development of new assessment models, at both the classroom and the provincial level, will focus on assessing

student achievement in relation to the five competencies and the learning standards. The advisory group has also suggested the need for reporting processes that incorporate a similarly flexible approach, allowing students multiple ways to demonstrate their learning and schools more opportunities to communicate student achievement in terms of competencies and performance standards. The Ministry recognizes the importance of further consultations in these important areas.

Recommendations from Regional Working Sessions

From February through May 2012, the planning team and other Ministry staff collected and reviewed feedback on the draft material developed by the Curriculum and Assessment Framework Advisory Group through a series of 12 regional working sessions. Sessions, organized through the BC School Superintendents' Association regional chapters, involved principals, superintendents, district staff, teachers, parents, school trustees, and students. Additional sessions were held for the Federation of Independent School Associations and the Yukon. Attendance at the various regional working sessions ranged from 30 to 150 participants.

As well as the 12 working sessions, a number of sessions were held to discuss the same topics with other educational partners, including parents, faculties of education, Aboriginal groups, and pre-service teachers. Participants at these sessions were given the opportunity to respond to the proposed curriculum prototype, to provide advice on K–12 reporting, and to make recommendations regarding graduation requirements.

Highlights from the Response Forms

Competencies

There was strong support for addressing competencies in curriculum, assessment, reporting, and graduation. Some respondents suggested that the Province could arrange all curricula around competencies while others thought that reporting on competencies would suffice. Across all regional sessions there was little question about the five competencies presented. A few individuals suggested combining competencies such as social and personal responsibility, and a few suggested renaming competencies, such as changing creative thinking and innovation to creativity and innovation. For the most part, communication, critical thinking, creative thinking and innovation, personal responsibility and well-being, and social responsibility were validated as the essential cross-curricular competencies.

Curriculum

There was overwhelming support for reducing the amount of curricula and focusing on key concepts and big ideas. Many comments suggested that the compact design and the electronic possibilities of the prototype could make curriculum more manageable, flexible and respectful of teacher professionalism. Others noted that the prototype could support the project-based learning and inquiry approaches that many teachers already use. However, some respondents suggested that the changes described do not go far enough. For example, they suggested curricula be organized using grade clusters or continua, or cross-subject integration. Many others urged the Ministry to move ahead on curriculum development.

Reporting

The feedback from the respondents who attended regional meetings suggests strong support for reporting on cross-curricular competencies, the use of performance-based language, and shifting from the term "reporting" to "communicating student learning." Further, many suggested the need to provide provincial guidelines to support ongoing communication of student learning and summative reporting at key times in the year. Many comments encouraged the use of flexible ways for students to demonstrate their learning (e.g. documentation, samples of work, and portfolios) and emphasized the importance of providing many self-assessment opportunities for students, especially at grades 10–12.

There was some support for making letter grades optional or not requiring them in K–9. Some respondents suggested that the Ministry should adopt a similar policy for grades 10–12, while others stated that letter grades are appropriate at that higher level. There was a wide range of views expressed about percentages. Concern was expressed about reporting for students with special needs.

Graduation Requirements

Participants at the regional meetings responded to a series of questions about graduation requirements. Many stated that graduation should be based on a demonstration of competencies rather than on course completion or credits. Further, many respondents liked the idea of graduation being based on readiness, not age. Many also commented that a final, competency-based exit assessment should be required for graduation; others said that the required assessment should be project-based, such as a cross-curricular capstone project. Others added that graduation should include demonstrations of learning through a collection of student work, with some focus on the community. Some respondents stated that the Ministry should extend opportunities for students to apply external credentials to graduation. All in all, respondents seemed to agree that there should be choice and flexibility for learners to meet graduation requirements, including academic and non-academic pathways, such as trades and technology. Learners should also be given the opportunity to better meet personal goals and requirements for post-secondary life, such as trades training and advanced math for university preparation.

To provide further and more detailed directions regarding graduation (including provincial assessment in the graduation years), educational partners are invited to take part in a series of regional dialogues and provincial activities on graduation requirements this fall.

Summary: Regional Working Sessions Recommendations

The response from the 12 regional working sessions to the recommendations from the Curriculum and Assessment Framework Advisory Group indicates strong support for the key elements of the advisory group's proposals on curriculum, assessment, and reporting. Developments that would address key competencies were widely supported, as was the plan to reduce the number of curricular outcomes in favour of key concepts.

Participants generally applauded efforts to enable innovation in BC schools, pointing out the many innovations already underway in schools. Several participants emphasized the importance of a long-term commitment to educational change. Others cautioned that there is a need to consider an evolutionary approach that allows time for the necessary shifts to occur and ensure support, especially for new teachers, to address the changes. Many participants presented ideas about how

districts might pilot new curricula and share findings, pointing out that schools and districts can learn from each other during the transition.

Although provincial assessment was not fully discussed at the regional meetings, there was excitement at the possibility that changes would be made to align assessments with the overall directions proposed. This will need to be more deeply explored in subsequent consultations when the curriculum is more fully developed and graduation requirements have been identified. The full set of comments from the working sessions is currently under review by Ministry.

Actions Underway and Next Steps

As a result of the recommendations from the advisory group and regional working sessions, the Ministry will move the proposed design forward and continue to explore possibilities. Many of the activities described below will be open to regions, districts, and educational partners that wish to join in the explorations.

Actions Underway

To inform the work of developing the curriculum and competencies, the Ministry has initiated the following activities.

- **Research on cross-curricular competencies** will inform the definitions and the development of a structure for each of the five cross-curricular competencies.
- **Cross-jurisdictional reviews** will help discern global trends in each area of learning. Recent subject area surveys and critiques are being gathered, reviewed, and summarized.
- **Research on Aboriginal perspectives** will build on discussions already underway with Aboriginal scholars and knowledge holders about how Indigenous perspectives are reflected in the cross-curricular competencies, and how best to further incorporate Indigenous knowledge and perspectives in curriculum and assessment.
- **Curriculum reviews** in each area are being conducted with the help of academics and educators. Options for organizational structure for each area of learning are being considered.
- **An "invitation to innovate"** has been issued to school districts, offering flexibility and encouraging innovations that support personalized learning.

Next Steps (Fall 2012)

During the fall of 2012, the Ministry plans the following activities.

- Curriculum Design: The Ministry will prepare discussion materials, illustrated with sample/draft curriculum elements, for use in online field reviews and focus groups to be conducted in districts and regions. After extensive reviews, the Ministry will begin to reformat or redesign curricula with the help of teachers, academic specialists, and other educators.
- Cross-curricular competencies: The Ministry will articulate the rationale for the five cross-curricular competencies, define each explicitly so that it works for both curriculum and assessment developments, and design frameworks to allow the development of continua for each

competency. Over the next school year, assessment experts and educators will work with classroom teachers in various regions to develop continua and identify samples.

- Graduation requirements: A group of educators from various regions in the province will lead discussions with local stakeholders regarding graduation requirements. The results of these discussions will help inform the work of a provincial advisory group on graduation requirements in late November and December 2012.
- Graduation science assessment: The Ministry will work with educators to develop and try out an alternative graduation science assessment that would measure key concepts and deeper learning.
- Provincial assessment: The Ministry will involve educators and education partners in discussions on provincial assessment once the curriculum is more fully developed and graduation requirements have been defined.

The activities underway allow the Province to explore new directions and to design curriculum, assessment, and reporting models intended to personalize learning, address core competencies, maintain high standards, and encourage flexibility and innovation in the classroom.

Upcoming Activities

Stay tuned for the following activities in the 2012-13 school year:

- A concept paper on the cross-curricular competencies: October 2012
- Gathering feedback on initial drafts of redesigned curriculum through various means (e.g., focus groups, online methods etc.): Fall 2012
- Provincial curriculum advisory process: Fall 2012
- Further curriculum development and re-envisioning including support material development: September 2012 – June 2013
- Development of prototype and sample tasks for each of the competency continua: November 2012 – March 2013
- Regional graduation program reviews and Advisory group sessions: September – December 2012
- Proposed changes to Graduation Program: December 2012
- Exploring alternative graduation assessments (e.g., Science 10): September 2012 – June 2013