



Overcoming challenges facing contemporary curriculum

Lessons from British Columbia

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Lessons from British Columbia: how curriculum can enable innovation and continual improvement

British Columbia's school system is one of the highest performing in the world. The western Canadian province, which educates around 640,000 students¹, consistently receives high scores for both excellence and equity on the Programme for International Assessment (PISA) measure.² It was also the only province to outperform both the international and Canadian average on the 2011 Progress in International Reading Literacy Study (PIRLS).³

High-performance, though, is not an excuse for complacency. Like those in other high-performing systems, educators in British Columbia recognise the potential pitfalls of inertia in a complex and changing world. British Columbian educators have joined the global chorus of policy-makers, school leaders and teachers calling for a greater emphasis on competencies to better equip students to thrive in their life and work.

Unlike many other systems, however, British Columbia is putting its rhetoric into action. In 2011, it launched an overhaul of its common curriculum and some aligned assessment structures, from Kindergarten to Grade 12. The change transformed expectations for teaching and learning across the province. The new curriculum focuses on the development of core competencies alongside foundational literacy and numeracy skills and is shaped by a vision for students' futures as thoughtful, creative, skilled, productive, co-operative citizens.⁴

The 2016-2017 school year marked the first year of mandated implementation of the renewed Kindergarten – Grade 9 curriculum, with implementation of the Grades 10 – 12 curriculum to be staggered over the next two years. The Ministry involved a large proportion of educators in its development and there has been significant buy-in to the new model. Seventy-two percent of teachers recently surveyed by the British Columbia Teachers' Federation say they have used the new curriculum to a "moderate", "large" or "very large" extent during the 2016-2017 school year.⁵

Yet curriculum reform in British Columbia is still a work in progress. The comprehensive nature of the reform has forced teachers and school leaders to grapple with the implications for their professional practice in every subject and across all grade levels. The Ministry and districts, in turn, are continuing to consider the implications of curricular reform for student assessment and reporting and for professional development and resourcing. All of this is occurring in a context involving several powerful stakeholders, including a strong teachers' union.

Systems that talk about the potential of curriculum to enable innovation and continual improvement have lessons to learn from British Columbia (see Figure 1). They can also learn *with* British Columbia, as it rolls out its new curriculum and begins to gauge the impact on teaching and learning. This system has taken a leap that others might shy away from. The outcome – and even how one might measure and articulate the outcome of such a dramatic curriculum change – remains a challenge for all systems looking to promote innovative teaching practice and prepare students for a changing world. It is a challenge British Columbia is tackling head on.

¹ In the 2016/2017 academic year there were approximately 640,000 students enrolled in elementary and secondary school across the province. Of these, more than 550,000 students were attending one of the 1,600 public schools and around 80,000 were attending one of the 350 independent schools. Within the public education system there were 30,000 full-time equivalent teachers. See Statistics Canada, 2018; British Columbia Ministry of Education, 2017a; Government of British Columbia, 2017; British Columbia Ministry of Education, 2017b.

² British Columbia Ministry of Education, n.d.-k

³ British Columbia Ministry of Education, n.d.-l; British Columbia Ministry of Education, n.d.-k.

⁴ British Columbia Ministry of Education, n.d.-e.

⁵ British Columbia Teachers' Federation, 2017.

Figure 1: Lessons from British Columbia

1: Identify and elevate key skills and capabilities	2: Foster deep understanding of student learning progression	3: Support innovation while maintaining rigorous standards
Define the “north star” and the skills and capabilities needed to reach it	Develop student learning progressions	Streamline the curriculum and make it accessible and engaging
Embed skills, capabilities, and Indigenous perspectives into subject areas	Strategically invest in curriculum-connected professional development	Use technology to enhance teaching, learning and reporting
Commit to continuous, profession-led curricular improvement	Make assessment for learning and teaching	Realise the potential of the middle layer

Lesson one: identify and elevate key skills and capabilities

School systems around the world are grappling with what it means to prepare students to thrive in their work and life in the 21st century. The conversation about the skills and capabilities students will need to adeptly negotiate a complex and rapidly changing world is not new in Australia, or in British Columbia. In 1988 the authors of the British Columbian Royal Commission report, *A Legacy for Learners*, posed a similar question:

*That youngsters have always needed certain skills and bodies of knowledge to operate successfully and to nourish their self-esteem is not in question. The question that must be addressed, however, is this: what knowledge and which skills are needed for the information and microtechnology age, in a world characterized by change?*⁶

The British Columbian school curriculum attempts to answer this question by identifying and elevating certain key skills and capabilities considered essential to shaping future citizens.

Define the “north star” and the skills and capabilities needed to reach it

About seven years ago British Columbia began to transform its curriculum, moving from detailed and content-driven curriculum documents to a more streamlined, competency-based model. Asked to name the triggers for this major change, the curriculum team at the Ministry of Education identify several:

1. The Ministry recognised the need to review the curriculum periodically to ensure it was preparing students for their future lives. It was becoming clear that the curriculum no longer fitted with international research and thinking characterised by a shift towards global competencies.⁷
2. Educators were reporting that they were no longer happy with the curriculum because it was crowded with content and “just too much”.⁸
3. Future-focused researchers inspired a proactive Education Minister to consider innovative possibilities.⁹

Curriculum reform began because the teaching profession and the Ministry understood the need for it, and the political environment was ripe for change. Launched in 2011, The *BC Education Plan* committed to redesigning the provincial curriculum to support teachers to focus on “personalized learning”¹⁰ while maintaining high expectations for what students should know and be able to do and the importance of literacy and numeracy. The plan stated that “the new curriculum will increasingly emphasise key concepts, deeper knowledge, and more meaningful understanding of subject matter. It will also reflect the core competencies and skills that students need to succeed in the 21st century.”¹¹ The plan laid out the steps the education system would need to take to bridge the divide between the status quo and its vision for students’ futures.

⁶ British Columbia Ministry of Education, 1988.

⁷ Meeting with curriculum team at British Columbia Ministry of Education.

⁸ Meeting with curriculum team at British Columbia Ministry of Education.

⁹ Meeting with curriculum team at British Columbia Ministry of Education.

¹⁰ Defined by the Ministry as: “Personalized learning recognizes that no two students learn the same way or at the same pace. It also recognizes that for students to succeed in school – and to succeed after graduation – they must be engaged and invested in their learning. This means learning that is focused on the needs, strengths and aspirations of each individual young person. In a system that values personalized learning, students play an increasingly active role in designing their own education path as they develop and mature – while being held increasingly accountable for their own learning success.” See British Columbia Ministry of Education, 2015a, p. 4.

¹¹ British Columbia Ministry of Education, 2015a p. 9.

The vision for students' futures is more clearly articulated in British Columbia than it is in many other systems. Laid out in the 1989 *Schools Act*, the *Educated Citizen* (see Box 1) codifies the capabilities schools need to develop in students to “assist in the development of an educated society”.

Box 1: The *Educated Citizen*

Schools in the Province should assist in the development of citizens who are:

- thoughtful, able to learn and think critically, and who can communicate information from a broad knowledge base;
- creative, flexible, self-motivated and who have a positive self-image;
- capable of making independent decisions;
- skilled and who can contribute to society generally, including the world of work;
- productive, who gain satisfaction through achievement and who strive for physical well being;
- cooperative, principled and respectful of other regardless of differences;
- aware of the rights and prepared to exercise the responsibilities of an individual within the family, the community, Canada, and the world.

Source: adapted from British Columbia Ministry of Education Governance and Legislation Branch, 2017

The *Educated Citizen* remains as relevant today as it was in 1989 and it has been an anchor for recent curricular reforms. Its enduring relevance does not mean it necessarily resonates strongly with all educators, or that they refer to it in their day-to-day teaching. As one educator explained, “it doesn’t grab me – it sounds like it has been written by a large committee”, and another said, “I don’t really think about the *Educated Citizen* at all”.¹² Yet educators in a 2011 regional session facilitated by the Ministry and focussed on the *Educated Citizen* believed that it remained an appropriate vision to shape the new curriculum.¹³

The core competencies (see Figure 2) are at the heart of the redesigned curriculum. Embedded in all subject areas, the competencies are “directly related to the educated citizen and as such are what we value for all students in the system”.¹⁴

¹² Interviews with British Columbia educators.

¹³ Meeting with curriculum team at British Columbia Ministry of Education.

¹⁴ British Columbia Ministry of Education, 2015b.

Figure 2: British Columbia Core Competencies

Communication	Thinking
<ol style="list-style-type: none">1. Share and develop ideas2. Obtain, interpret, and present information3. Work together to plan, carry out, and review tasks and activities4. Describe / recall and reflect on experiences and what one can do	<p>Creative thinking</p> <ol style="list-style-type: none">1. Novelty and value2. Generating ideas3. Developing ideas <p>Critical thinking</p> <ol style="list-style-type: none">1. Analyze and critique2. Question and investigate3. Develop and design

Personal and Social		
Positive personal & cultural identity	Personal awareness & responsibility	Social responsibility
<ol style="list-style-type: none">1. Relationships and cultural contexts2. Personal values and choice3. Personal strengths and abilities	<ol style="list-style-type: none">1. Self-determination2. Self-regulation3. Well-being	<ol style="list-style-type: none">1. Contributing to community and caring for the environment2. Solving problems in peaceful ways3. Valuing diversity4. Building relationships

Source: British Columbia Ministry of Education, n.d.-d

The core competencies are key to a curriculum in which each subject area and grade level is characterised by three elements:

- **Content learning standards** that set out what students should know, including particular content topics. For example, Grade 7 ELA students are expected to know the “forms, functions and genres of text”.¹⁵
- **Curricular competency learning standards** that set out what students should be able to do. They are the subject-specific articulations of the core competencies and include skills, strategies and processes. For example, Grade 7 English students should be able to “access information and ideas for diverse purposes and from a variety of sources and evaluate their relevance, accuracy, and reliability”.¹⁶
- **“Big Ideas”** that articulate what students should understand at the end of each grade and subject area. They combine key content and competencies and are expected to “endure beyond a single grade and contribute to future understanding”.¹⁷ One big idea in Grade 7 English is “language and text can be a source of creativity and joy”.¹⁸

¹⁵ British Columbia Ministry of Education, 2016b.

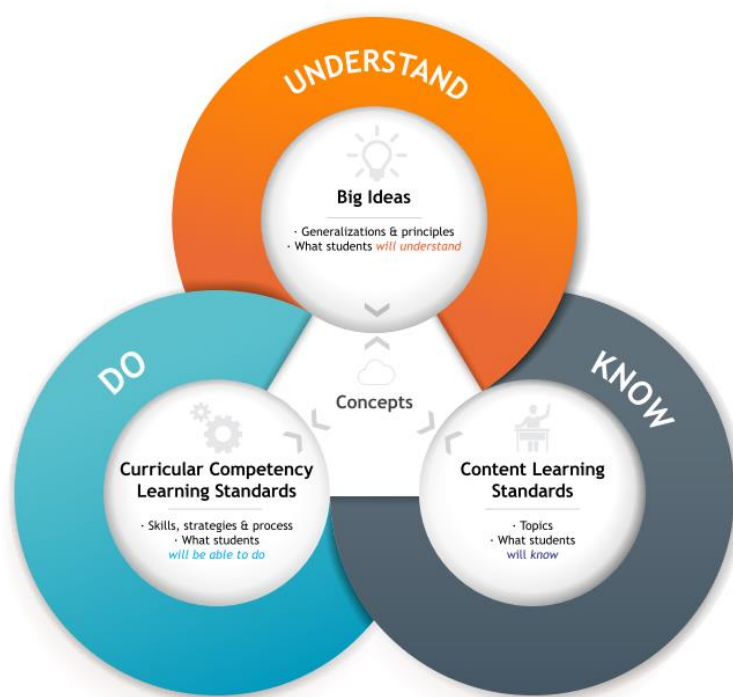
¹⁶ British Columbia Ministry of Education, 2016b.

¹⁷ British Columbia Ministry of Education, 2015b.

¹⁸ British Columbia Ministry of Education, 2016b.

The “Know, Do, Understand” model (see Figure 3) is an organising framework for the redesigned curriculum in British Columbia. It is used to structure all curriculum documents, which are available online in one or so page for each subject and grade level (see Figure 9 for an example).

Figure 3: British Columbia Curriculum Framework, “Know, Do, Understand”



Source: British Columbia Ministry of Education, n.d.-f

Embed skills, capabilities and Indigenous perspectives into subject areas

The subject-specific articulation of the core competencies in each subject area is key to their impact on teaching and learning. Reflecting an understanding of contemporary cognitive psychology research on the domain-specificity of skills¹⁹, the Ministry has been clear that while the core competencies should be “evident in every area of learning...they manifest themselves uniquely in each discipline”.²⁰ The subject-specific manifestations of the core competencies are expressed through the curricular competencies listed for each subject and for each grade level (for an example from Grade 7 English, see Figure 4).

Curriculum writing teams at the Ministry devised the curricular competencies in each subject area. The teams, which were led by a provincial subject co-ordinator and included teachers with specific subject expertise and other experts, were provided with a list of the core competencies and definitions, and “asked to think about what they mean for each subject area”.²¹ For example, the teams considered and codified what “communication” looks like in social studies or in science, and what students should be able to do to demonstrate each competency. The curricular competencies in each subject area cannot always be directly coded or mapped to precise aspects of the different core competencies. The Ministry tried to create such maps as part of the curriculum redesign process but found it “too messy to sustain or be useful”.²² This is because a single curricular competency could often be mapped to several aspects of different core

¹⁹ See, for example; Willingham, 2007.

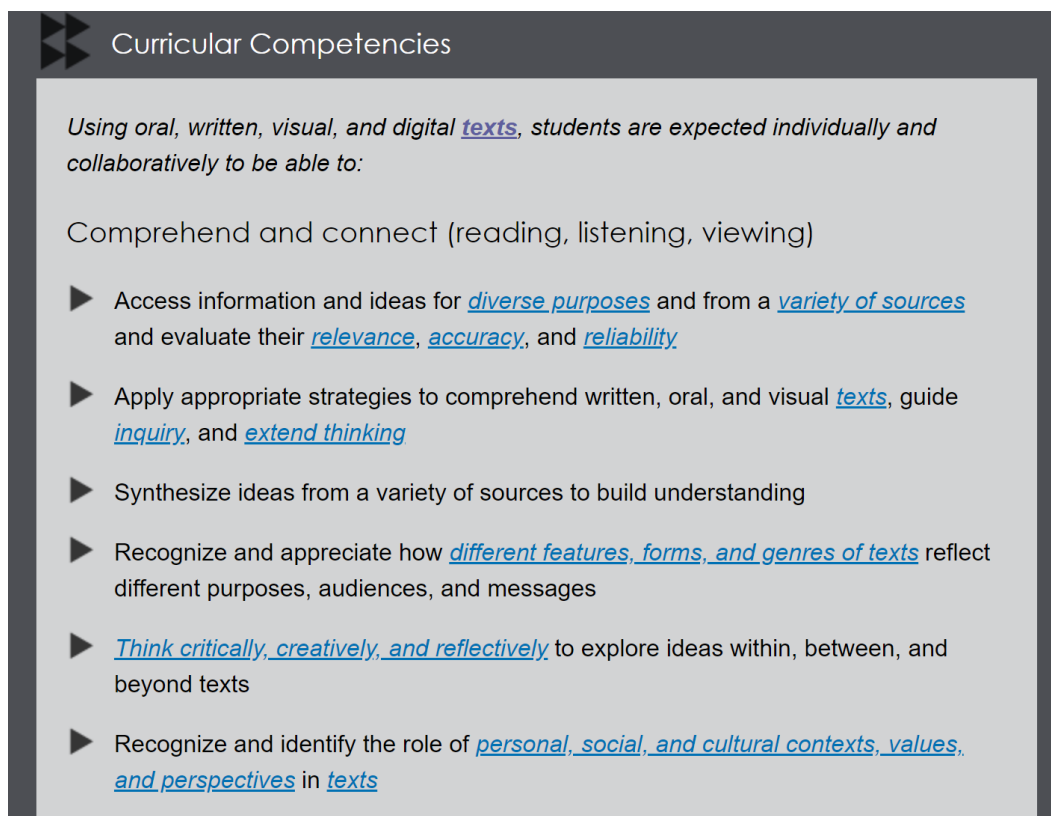
²⁰ British Columbia Ministry of Education, n.d.-d.

²¹ Interview with curriculum team at British Columbia Ministry of Education.

²² Interview with curriculum team at British Columbia Ministry of Education.

competencies.²³ As such, the curricular competencies should be interpreted as interrelated parts of a cohesive whole that reflects the core competencies. The curricular competencies are designed to give teachers tangible and subject-specific expressions of the core competencies. This means the core competencies can be taught, assessed and, ultimately, embedded meaningfully into the curriculum instead of simply sitting alongside it.

Figure 4: Excerpt of Curricular Competencies for Grade 7 ELA



Curricular Competencies

Using oral, written, visual, and digital texts, students are expected individually and collaboratively to be able to:

Comprehend and connect (reading, listening, viewing)

- ▶ Access information and ideas for diverse purposes and from a variety of sources and evaluate their relevance, accuracy, and reliability
- ▶ Apply appropriate strategies to comprehend written, oral, and visual texts, guide inquiry, and extend thinking
- ▶ Synthesize ideas from a variety of sources to build understanding
- ▶ Recognize and appreciate how different features, forms, and genres of texts reflect different purposes, audiences, and messages
- ▶ Think critically, creatively, and reflectively to explore ideas within, between, and beyond texts
- ▶ Recognize and identify the role of personal, social, and cultural contexts, values, and perspectives in texts

Source: British Columbia Ministry of Education, 2016b

The focus on the core competencies led to some subjects being combined and others being extensively reworked. For example, the Ministry has added *Career Education K-12* to the roster of available subjects. Previously, career education had been part of the *Health and Career Education* curriculum. The new curriculum combines the *Health* and *Physical Education* domains, and establishes *Career Education* as a subject in its own right.²⁴ The new subject “focuses solely on the competencies and content required for career development”.²⁵ In Grade 3, for example, the content standards include “goal-setting strategies” and “risk-taking and its role in self-exploration”, while the curricular competencies include: “work respectfully and constructively with others to achieve common goals”.²⁶

Along with key skills and capabilities, the redesigned curriculum also seeks to “embed Aboriginal perspectives into all parts of the curriculum in a meaningful and authentic manner”.²⁷ While British Columbia educators have worked to improve outcomes for Indigenous students for many years, that goal has not typically been reflected in the curriculum. While the old curriculum and associated resources

²³ Interview with curriculum team at British Columbia Ministry of Education.

²⁴ British Columbia Ministry of Education, n.d.-b.

²⁵ British Columbia Ministry of Education, n.d.-b.

²⁶ British Columbia Ministry of Education, n.d.-b.

²⁷ British Columbia Ministry of Education, n.d.-a.

sometimes provided some information *about* Indigenous people, for example, it did not honour their perspectives or effectively embed them into the curriculum.²⁸

The redesigned curriculum embeds the perspectives of Indigenous peoples in key ways. For example, during the curriculum development process, curriculum teams were asked to consider the *First People's Principles of Learning*, which “generally reflect First Peoples pedagogy” (see Box 2). Representatives of Indigenous communities collaborated on the design and development of the new curriculum at every stage.²⁹ As a result, “references to Aboriginal knowledge and worldviews are both explicit and implicit in the redesigned curricula and are evident in the rationale statements, goals, learning standards and some of the elaborated information”.³⁰ A further outcome was inclusion of a “positive personal and cultural identity” core competency, which was not part of the first draft of the taxonomy.³¹ The First Nations Education Steering Committee, unique to British Columbia in the Canadian context, also plays a key role in embedding Indigenous perspectives, including through the development of resources aligned with the redesigned curriculum.³²

Box 2: First People's Principles of Learning

- Learning supports the well-being of the self, the family, the community, the land, the spirits, and the ancestors.
- Learning is holistic, reflexive, reflective, experiential, and relational (focused on connectedness, on reciprocal relationships, and a sense of place).
- Learning involves recognising the consequences of one's actions. It involves generational roles and responsibilities.
- Learning recognises the role of indigenous knowledge.
- Learning is embedded in memory, history, and story.
- Learning involves patience and time.
- Learning requires exploration of one's identity.
- Learning involves recognising that some knowledge is sacred and only shared with permission and/or in certain situations.

Source: Adapted from British Columbia Ministry of Education, n.d.-g

Commit to continuous, profession-led curricular improvement

Though implementation is just beginning, many educators across the province support the intent of the redesigned curriculum.³³ The widespread support is particularly remarkable given the inherently political nature of curriculum redesign, and the historically antagonistic relationship between the teaching profession and their representative union, and the Ministry. The Ministry worked hard to ensure that all curriculum redesign efforts were deeply informed by the perspectives of the people who were going to be implementing it in classrooms every day. As one Ministry official explains: “We were clear from the beginning that our partners in this reform were going to be the educators.”³⁴ The details of the curriculum

²⁸ British Columbia Ministry of Education, n.d.-a.

²⁹ British Columbia Ministry of Education, n.d.-g.

³⁰ British Columbia Ministry of Education, n.d.-g.

³¹ Interviews with British Columbia educators; Interview with curriculum team at British Columbia Ministry of Education.

³² Interview with British Columbia educators.

³³ Interviews with British Columbia educators; British Columbia Teachers' Federation, 2017.

³⁴ Interview with curriculum team at British Columbia Ministry of Education. See also British Columbia Teachers' Federation, 2017.

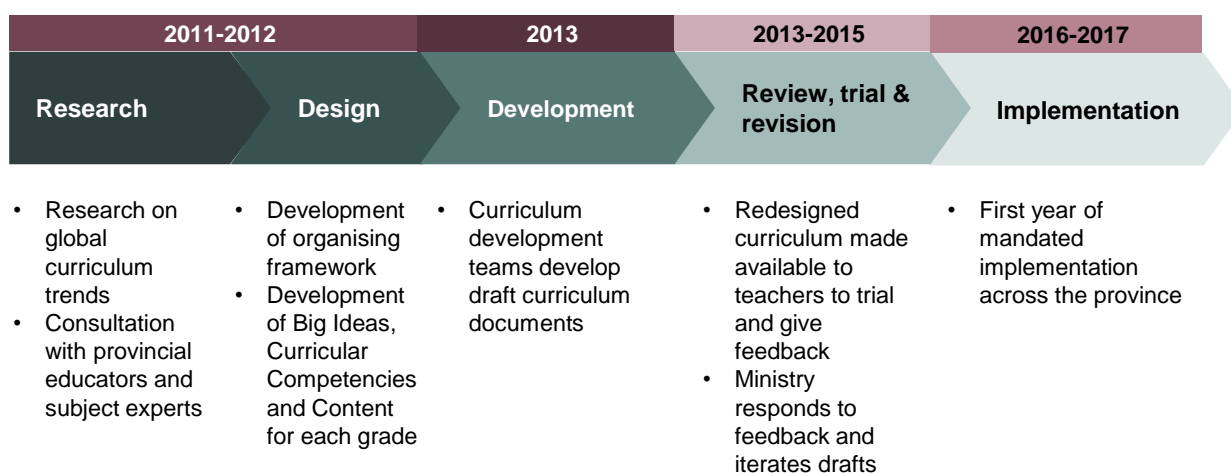
review and development process in British Columbia are therefore particularly instructive to other school systems trying to engage diverse and sometimes divided stakeholders as they seek to redesign curricula.

Technical process

The province's curriculum reviews in the early 2000s were relatively light touch and ad hoc. Content-heavy curriculum documents, known as the *Integrated Resource Packages*³⁵, were reviewed every few years, especially whenever the subject matter was receiving feedback, or there was a Ministry need or directive.³⁶ The updates were formulaic: teams of teachers led by the subject co-ordinator would work through a template that included columns for learning outcomes, instructional ideas, assessment ideas, and resources.³⁷ Occasionally there were more significant changes: for example, when the mathematics curriculum development team decided to eliminate the "assessment ideas" category and introduce a more prescriptive "achievement indicators" category in its place, a reform that eventually had a lateral impact on other subject areas.³⁸ Historically, curriculum review and development in British Columbia was fragmented and reactive, lacking a coherent organising framework, common process, or regular timeline. Curriculum redevelopment was also secretive and exclusive: teachers selected for curriculum development teams were asked to sign non-disclosure agreements to prevent them discussing changes with their peers prior to the publication of updated materials.³⁹

The 2011 curriculum redesign abandoned previous practice. It went back to first principles of curriculum design and was deeply collaborative. Figure 5 reflects a high-level timeline of key milestones.

Figure 5: Timeline of K-9 curriculum development and implementation



Source: Adapted from British Columbia Ministry of Education, n.d.-m; supplemented with interviews with the curriculum team at the British Columbia Ministry of Education

In 2011, the Ministry established a Curriculum and Assessment Framework Advisory Group to begin curriculum redesign efforts. The Advisory Group, which included experienced educators and academics, began redesign efforts by conducting desktop and field research on what curriculum should be. They

³⁵ For an example, see: <https://www2.gov.bc.ca/assets/gov/education/kindergarten-to-grade-12/teach/pdfs/curriculum/mathematics/2008math89.pdf>.

³⁶ Interview with curriculum team at British Columbia Ministry of Education.

³⁷ Interview with curriculum team at British Columbia Ministry of Education.

³⁸ Interview with curriculum team at British Columbia Ministry of Education.

³⁹ Interview with curriculum team at British Columbia Ministry of Education.

consulted the evidence base, including existing taxonomies of skills and competencies, and arrived at a prototype to test with stakeholders.

Importantly, the research phase also included 12 regional sessions that canvassed educator views on the prototype and curriculum design. These sessions, which involved “principals, superintendents, district staff, teachers, parents, school trustees, and students”, found strong educator support for the inclusion of core competencies and a strong desire to streamline the curriculum and focus more on “Big Ideas”, as opposed to lists of specific content.⁴⁰ The regional sessions culminated in a series of summary documents to which educators across the province were invited to respond. The Ministry also consulted parent groups; post-secondary faculties of education; pre-service teachers; representatives of the Indigenous community; educators from independent schools; and representatives from the Yukon.⁴¹

The “Know, Do, Understand” organising framework was finalised in 2013, and informed the first curriculum design meetings, in which educators selected for their subject expertise worked with the Ministry to define in more detail the “Big Ideas”, curricular competencies and content for each grade level and subject.⁴² This work informed the design work of curriculum development teams: educators who co-developed the core competencies and curricular competencies with the Ministry. Teams for each subject defined the curricular competencies, while teachers in 20 pilot school districts worked with an expert facilitator to use samples of their students’ work to construct a developmental continuum for each of the core competencies. Figure 6 provides an excerpt from the “communication” developmental continuum.⁴³ Selected student work samples used to inform the “identity” developmental continuum are included in Appendix 1.









⁴⁰ British Columbia Ministry of Education, 2012.

⁴¹ British Columbia Ministry of Education, 2012.

⁴² Subjects were English language arts, mathematics, social studies, science, arts education, health/career/physical education.

⁴³ Select student work samples used to inform the “identity” continuum included in Appendix 1.

Figure 6: Excerpt from the “Communication” developmental continuum

PROFILE	DESCRIPTION
 1	In a safe and supported environment, I respond meaningfully to communication from peers and adults. With support, I can be part of a group.
 2	In familiar situations, with direct support, I communicate with peers and adults. I understand and share basic information about topics that are important to me. I talk and listen to people I know. I plan and complete activities with peers and adults. I can answer simple direct questions about my activities and experiences.
 3	In familiar situations, with some support or guidance, I communicate with peers and adults. I understand and share basic information about topics that are important to me, and participate in conversations for a variety of purposes (e.g., to connect, help, be friendly, learn/share). I listen and respond to others. I can work with others to achieve a short-term, concrete goal; I do my share. I can recount simple experiences and activities, and tell something I learned.
 4	I communicate with peers and adults with growing confidence, using forms and strategies I have practiced. I gather basic information I need for school tasks and for my own interests, and present it in ways I have learned. I am becoming an active listener; I ask questions and make connections. When I talk and work with peers, I express my ideas and encourage others to express theirs; I share roles and responsibilities. I recount and comment on events and experiences.
 5	I communicate clearly, in an organized way, using a variety of forms appropriately. I acquire the information I need for school tasks and for my own interests, and present it clearly. In discussions and collaborative activities, I am an engaged listener—I ask clarifying and extending questions. I share my ideas and try to connect them with others' ideas. I contribute to planning and adjusting a plan, and help to solve conflicts or challenges. I am able to represent my learning, and connect it to my experiences and efforts. I give and receive constructive feedback.
 6	I communicate confidently in organized forms that show attention to my audience and purpose. I acquire information about complex and specialized topics from various sources, and synthesize and present it with thoughtful analysis. I contribute positively to discussions and collaborations, and help to organize and monitor the work. I ask thought-provoking questions, integrate new information, support others, and help to manage conflicts. I offer detailed descriptions of my own efforts and experiences. I give, receive, and act on constructive feedback.
 7	I communicate effectively in well-constructed forms that are effective in terms of my audience and purpose. I acquire, critically analyse, and integrate well-chosen information from a range of sources. I show understanding and control of the forms and technologies I use. In discussion and collaboration, I acknowledge different perspectives, and look for commonalities. I offer both leadership and support; I am flexible and have a variety of strategies and experiences to draw on. I am able to represent my learning and my goals, and connect these to my previous experiences. I accept constructive feedback and use it to move forward.
 8	I am intentional and strategic; I am able to engage and accomplish my purpose with an increasing range of audiences, including those I do not know. I access and make strategic choices from complex and specialized information sources. I show expertise in the forms and technologies I use. I can take leadership in a discussion or collaboration, and focus on deepening or transforming our thinking. I seek consensus, and focus on collective results. I can articulate a keen awareness of my strengths, my aspirations and myself. I offer detailed analysis, using specific terminology, of my progress, work and goals.

Source: British Columbia Ministry of Education, n.d.-c

The draft curriculum documents were published online in 2013 and educators across the province were invited to trial them and give feedback. Until 2015 the Ministry updated and reposted drafts for several subject areas and grade levels and provided seed funding for 16 groups of educators to do “deep dives” into the curriculum and provide detailed feedback (see Box 3 for details). Implementation of the Kindergarten to Grade 9 curriculum was compulsory across the province for the 2016-2017 school year. For Grades 10 to 12, development of the 300 curriculum documents is identical to the Kindergarten to Grade 9 process and will be implemented in the coming years: drafts of the curriculum for these grade levels have been posted to the Ministry website and are due to be implemented from 2018-2019 for Grade 10 and 2019-2020 for Grades 11 and 12.

Box 3: Seed funded “deep-dives” into the new curriculum

In 2014 the Ministry offered a small amount of seed funding (CAD \$5000 to \$10,000 per site) to districts willing to conduct a “deep dive” into the renewed curriculum and provide the Ministry with considered feedback. The Ministry engaged around 16 sites across British Columbia and provided them with a set of questions to support their exploration of the draft curriculum changes. These included:

- What are the strengths of the curriculum, and what changes would you suggest?
- In what ways might this curriculum enable teachers to innovate and personalize learning?
- To what extent does this curriculum encourage interdisciplinary and hands-on learning experiences? How could this be further supported?
- To what extent does this curriculum encourage and create opportunities for cross-curricular activities; inquiry-based teaching and learning activities; multi-grading opportunities; connections to the world outside and relevancy to students; choice and flexibility in what is taught, how it is taught; and how students can represent their learning in different ways?
- How does this curriculum support the development of an educated citizen?
- How visible are the First People’s Principles of Learning and Aboriginal worldviews?
- How might this curriculum be used to support the diverse learning needs of students?
- How will this curriculum support the development of applied skills and core competencies?

Source: Interview with British Columbia Ministry. These questions have been condensed and paraphrased.

The Ministry’s approach to redesigning the new curriculum has informed thinking about future approaches to minor and major curriculum updates. As described above, in the past curriculum review in British Columbia has not been rigorous or coherent. The Ministry is now looking to establish a more defined, transparent process that brings curriculum teams together “perhaps every two years” to review feedback on the curriculum.⁴⁴ Teams would likely focus on the “Big Ideas” and curricular competencies, including how they emphasise different aspects of the core competencies.⁴⁵ Feedback on the core competencies themselves would also likely be considered as part of this review, but any proposed changes to the core competencies would trigger another major consultation similar to the one that has recently concluded. The ambition – and the challenge – for the Ministry is to maintain an “evergreen” curriculum that remains deeply connected to the day-to-day experience of educators and to a collective vision for students’ futures.⁴⁶ Work on exactly what this looks like is ongoing.

Stakeholder and change management

The curriculum redesign described above represents a significant change for school education in British Columbia. To be clear: the curriculum for every subject and every grade level was completely redesigned at the same time, in collaboration with all main stakeholders. This would be a large job for any government department or affiliated body. It was especially ambitious for the British Columbia Ministry of Education, which only employs about 200 people, including just one co-ordinator in each curriculum subject area.⁴⁷

The Ministry was able to execute such a significant reform in such a short period of time, against the backdrop of a complex political landscape, because it employed the expertise and momentum for change that existed in the schools and districts. Indeed, the support and co-operation of educators, the Teachers’ Federation and the subject associations were key to success. The Ministry did not have to “sell” the need

⁴⁴ Interview with curriculum team at British Columbia Ministry of Education.

⁴⁵ Interview with curriculum team at British Columbia Ministry of Education.

⁴⁶ Interview with curriculum team at British Columbia Ministry of Education.

⁴⁷ Interview with curriculum team at British Columbia Ministry of Education.

for curriculum reform: while it had worked to develop a research base that gave weight to the “why”, it moved on reform only when it knew “everyone was asking for the change”.⁴⁸

From the start, the perspectives of educators and other stakeholders informed curriculum redesign. Senior officials in the Ministry and district leaders attribute the success of the reform to the deep involvement of educators.⁴⁹ There were multiple opportunities to provide feedback on curriculum design and drafts over a period of several years, and the drafts “changed radically in response to feedback”.⁵⁰

Importantly, the Ministry also pushed out deadlines when educators involved in the redesign asked them to. While this slowed implementation of both the Kindergarten – Grade 9 and the Grades 10-12 curriculum by one to two years, it ultimately increased buy-in across the province.⁵¹ Educators embraced the curriculum because they were either directly involved in writing it or providing feedback on it, or they know someone who was. As one educator explains: “At the end of the day, if you don’t like it, it’s your fault for never speaking up.”⁵² The redesigned curriculum has been truly co-constructed: educators in British Columbia don’t call it “the curriculum” anymore, they call it “our curriculum”.⁵³

The co-operation and investment of the Teachers’ Federation in the curriculum redesign process was also vital. The Ministry and the Federation did not always have a good working relationship in the period before the redesign took place, and the Ministry had to work to ensure the Federation bought in. It built the trust of the Federation by inviting it to nominate the educators on the curriculum teams who co-developed the curricular competencies. It also convened regular meetings at multiple layers of each organisation to workshop the status of the curriculum development process over time. Through this process, the Teachers’ Federation helped shape the design and content of the new curriculum.⁵⁴

These close working relationships between the Ministry, Teachers’ Federation and provincial educators had three effects:

1. They facilitated broad professional and community support for the redesigned curriculum. Whenever the media went to the Teachers’ Federation for comment on the new curriculum, for example, they received consistently positive messages. Further, the Teachers’ Federation sometimes proactively intervened in the public discourse to defend the new curriculum on the few occasions individuals, such as parents, expressed their displeasure at an approach that some saw as moving away from “the basics”.⁵⁵
2. A productive and positive working relationship between the Ministry and the Federation helped secure the engagement and support of the heavily unionised educator workforce.
3. The engagement of all key stakeholders, particularly teachers, insulated the redesigned curriculum from the potential impact of political churn. The 2017 British Columbia provincial election saw the defeat of the Liberal government for the first time since 2001, and the election of a minority government led by the New Democratic Party in coalition with the British Columbia Greens Party. While significant political change of this kind commonly ushers in a new episode of the curriculum-related ‘culture wars’ in many systems, this did not happen in British Columbia. The new government can make small tweaks to the curriculum to leave their stamp, particularly on the yet-

⁴⁸ Interview with curriculum team at British Columbia Ministry of Education.

⁴⁹ Interview with curriculum team at British Columbia Ministry of Education.

⁵⁰ Interview with a British Columbia educator.

⁵¹ Interview with a British Columbia educator.

⁵² Interview with a British Columbia educator. The recent British Columbia Teachers Federation Curriculum Change and Implementation Survey indicates that some educators would disagree with this sentiment. See British Columbia Teachers’ Federation, 2017.

⁵³ Interview with a British Columbia educator.

⁵⁴ Interview with curriculum team at British Columbia Ministry of Education.

⁵⁵ Interview with curriculum team at British Columbia Ministry of Education.

to-be-implemented Grades 10 – 12 curriculum, but it can't make radical changes to a reform shaped by the entire education system. As one educator put it, "They can't touch the curriculum. It would be their death knell."⁵⁶

While the British Columbia subject associations are not as influential as the Teachers' Federation, they were also partners in the curriculum redesign. The Ministry invited a representative from the relevant subject association to be part of each curriculum team. This enabled communication in both directions: association representatives shared the perspectives of their membership during curriculum development discussions and were able to explain the process and its outcomes to their membership when decisions were questioned.⁵⁷ The subject associations' involvement also put them in a good place to produce materials, including pedagogical supports, aligned with the new curriculum – something the Ministry cannot do.

Finally, effective change management within the Ministry was also key to success of the reforms. A significant curriculum change of this nature influences the work of the many, usually siloed, divisions in a typical government department. For example, although the curriculum team drove day-to-day operations of the curriculum redesign, the changes also affected the work of other Ministry teams. The outreach and engagement teams needed to explain the curriculum changes, along with other aspects of the *BC Education Plan*, to parents and the community. The web team needed to construct an appropriate digital platform for the new curriculum. Work "in about a dozen other different areas across the Ministry" was affected.⁵⁸ The Ministry established a project management team to effectively co-ordinate the different pieces of work required across all areas.

⁵⁶ Interview with a British Columbia educator.

⁵⁷ Interview with curriculum team at British Columbia Ministry of Education.

⁵⁸ Interview with a British Columbia educator.

Lesson two: foster a deep understanding of student learning progression

History and context can never be ignored if one intends to use lessons from one education system to inform effective policy development and implementation in another. Like Singapore and other consistently high-performing education systems, British Columbia is constantly evolving despite being at the top of international education rankings. For example, over the past 20 years there have been multiple iterations of curriculum frameworks and associated documentation, and many different models and combinations of assessment and teacher professional development alongside them. Ask educators in British Columbia why their system keeps changing, and they invariably reply: “because the world keeps changing”.⁵⁹

A systemic commitment to producing educated citizens, along with a deep-rooted social consciousness that drives continual improvement towards better outcomes for diverse learners, spurs constant educational reform and innovation in British Columbia. Previous curriculum development, and related professional development and assessment initiatives, have laid the foundation for the most recent curriculum renewal. These historical factors give teachers in British Columbia a deep and shared understanding of how student learning progresses in key subject areas, and how their teaching interacts with that progression. This understanding is key to the development of pedagogical content knowledge and other elements of highly effective teaching practice, and British Columbia educators are bringing this expertise to their interpretation and implementation of the new curriculum.⁶⁰ As one explains:

*The reason this curriculum change has been so effective is because it has been two decades in the making – it was time, and we were ready.*⁶¹

Develop student learning progressions

The recent curriculum renewal has been influenced by the Performance Standards published in the late 1990s. The Performance Standards, which are still used throughout the province, are student learning progressions that are ostensibly linked to the prescribed learning outcomes from the *Integrated Resource Package* (old curriculum). They “describe levels of achievement in key areas of learning” (reading, writing, numeracy, social responsibility, and healthy living) and they help teachers to assess whether student work is meeting the systemic expectations set out in the prescribed learning outcomes.⁶²

The Performance Standards describe what student work looks like in five bands of achievement aligned with the relevant prescribed learning outcomes: Not Yet Within Expectations; Within Expectations; Meets Expectations (Minimal Level); Fully Meets Expectations; and Exceeds Expectations.⁶³ Importantly, they also contain student work samples. An example of a student work sample that “Fully Meets Expectations” is the sample Grade 7 Reading Literature task, *Interview with Icarus or Daedalus*, shown in Figure 7 below. An example learning progression for Grade 7 Reading Literature is also included in Appendix 2, along with the summary version, known as a ‘Quick Scale’.⁶⁴

⁵⁹ Interview with a British Columbia educator.

⁶⁰ See, for example, Jensen, Sonnemann, et al., 2016a.

⁶¹ Interview with British Columbia educator.

⁶² BC Ministry of Education, n.d.

⁶³ BC Ministry of Education, n.d.

⁶⁴ Grade 7 Reading Performance Standards available in full here:

https://www2.gov.bc.ca/assets/gov/education/administration/kindergarten-to-grade-12/performance-standards/reading/reading_q7.pdf; all Performance Standards available here:

<https://www2.gov.bc.ca/gov/content/education-training/k-12/teach/bc-performance-standards/reading>.

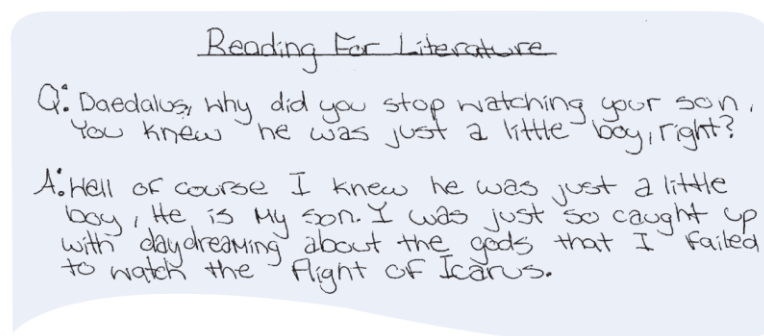
Figure 7: Grade 7 Reading “Fully Meets Expectations” student work sample

FULLY MEETS EXPECTATIONS**Teacher's Observations**

This student attempted to ask higher-level-thinking questions that went somewhat “beyond” the selection.

- ◆ work is accurate and complete
- ◆ accurately describes setting, characters, main events, and conflict in own words and explains how they are related
- ◆ makes and justifies logical predictions about the selection and about events “beyond the story”
- ◆ makes inferences that show some insight into characters’ motivations and feelings; provides support from the selection
- ◆ identifies relevant details in response to questions

	Not Yet	Meets	Fully	Exceeds
SNAPSHOT				
STRATEGIES				
COMPREHENSION				
ANALYSIS				



Source: BC Ministry of Education, n.d.

The Ministry led development of the Performance Standards, while employing the expertise of teachers. It organised a large group of experienced teachers to inform the development of Performance Standards in each key area. Engaging educators was vital: the profession accepted and even championed the Performance Standards because every teacher had either worked on them or “knew someone who worked on them”.⁶⁵ The fact that the Performance Standards were informed by real student work samples also gave them credibility. As one experienced educator explains: “We have always insisted we work empirically. We conduct research in the field and if there is any kind of student assessment it is built out of kids’ work.”⁶⁶

The Performance Standards changed teaching and learning in British Columbia by anchoring professional conversations to student learning. By articulating in detail how student learning progresses in key subject areas, and by including examples of student work, the Performance Standards have enabled teachers to better understand the impact of their teaching, and to make decisions about their own professional development on this basis. As one educator explains:

When I began to use the Performance Standards, I began to understand that my own learning was directly connected to (students’) learning. I remember watching kids move along the Performance Standards and realising that I needed to enhance my own understanding about how to teach writing in a way that allowed them to develop.

The Performance Standards became the basis of the collective understanding and shared language of student learning across the province, enabling more rigorous professional conversations about how to continually improve.⁶⁷ For many teachers, the Performance Standards became more important to their

⁶⁵ Interview with a British Columbia educator.

⁶⁶ Interview with a British Columbia educator.

⁶⁷ Interviews with British Columbia educators.

professional practice than the curriculum itself. As one teacher explains: “The Performance Standards are my lifeline. When I first became a teacher, they *were* my curriculum.”⁶⁸

The Performance Standards are now two decades old and, while not explicitly linked to the new curriculum, they have undeniably impacted its development and implementation. Although they were never mandated, the Performance Standards have had a far-reaching impact on curriculum.⁶⁹ As powerful tools for building formative assessment literacy, they became so widely used across the province that they eventually became “embedded in everything”. As one educator puts it, the Performance Standards “were a primer for the mindset shift required by the new curriculum: it’s about student development and not just content and static reporting”.⁷⁰

Some teachers who are familiar with the Performance Standards believe they have switched more easily to the new curriculum, because they know what student learning looks like and can draw on this understanding to scaffold student learning towards the learning goals specified in any curriculum.⁷¹ Some teachers argue that this deep understanding of student learning, underpinned by tools that demonstrate the development of reading and writing and other competencies, has enabled British Columbia to move from a content-driven to a competency-driven curriculum in a way that might not be possible elsewhere.⁷²

Despite being aligned with an old curriculum and containing language that many educators now reject,⁷³ the Performance Standards are still used across the province, and, given their popularity, are probably here to stay. Some districts have created updated versions of the Performance Standards linked more closely to the new curriculum, and the Ministry is considering its own update.⁷⁴

Strategically invest in curriculum-connected professional development

As all system leaders will appreciate, the publication of a new curriculum, irrespective of its quality, is not enough on its own to change school and teacher practice. Teacher professional development is key to the successful implementation of curriculum and associated materials. As the authors of the 1988 British Columbian Royal Commission report, *A Legacy for Learners*, wrote: “Effective curriculum implementation requires teachers to understand the intent of new curriculum and to receive constructive feedback during their initial attempts to integrate new curriculum into classroom programs.”⁷⁵ This was true in the case of the Performance Standards and has been true for the implementation of the renewed curriculum.

An approach to teacher professional development based on an improvement cycle was instrumental to supporting teacher understanding and implementation of the Performance Standards. Seed-funded by the Ministry and led by experienced educators, Dr Linda Kaser and Dr Judy Halbert, the Network of Performance Based Schools used the *Spirals of Inquiry* (see Figure 8) to help teachers engage deeply with the learning progressions and consider their implications for professional practice.

⁶⁸ Interview with a British Columbia educator.

⁶⁹ Interview with British Columbia educators.

⁷⁰ Interview with a British Columbia educator.

⁷¹ Interview with a British Columbia educator.

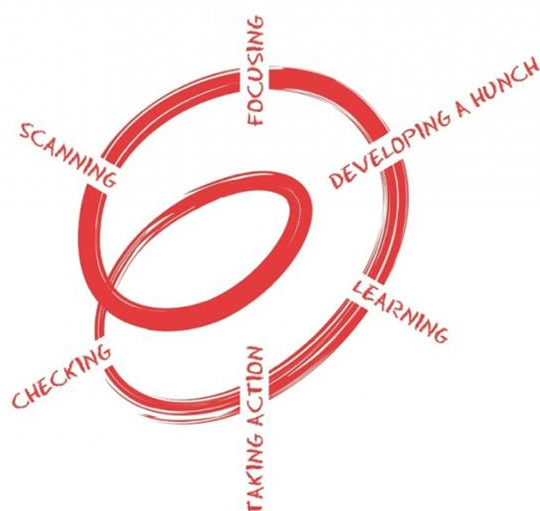
⁷² Interview with British Columbia educators.

⁷³ Some language, such as “Does Not Meet Expectations”, is considered too negative.

⁷⁴ Interview with the curriculum team at the British Columbia Ministry of Education; interview with district leaders.

⁷⁵ British Columbia Ministry of Education, 1988.

Figure 8: Spirals of Inquiry



Scanning: What's going on for our learners?

Focusing: What does our focus need to be?

Developing a hunch: What is leading to this situation?

Learning: How and where can we learn more about what to do?

Taking Action: What will we do differently?

Checking: Have we made enough of a difference?

Source: Halbert & Kaser, 2013

Spirals of Inquiry presents a series of steps for teachers to follow to examine and understand the impact of their teaching on student learning. Teachers who joined the Network used this method to:

- **Scan** evidence of student learning, including assessing student learning progression using the Performance Standards;
- Select a **focus** of their inquiry by considering key opportunities for student learning growth;
- **Develop a hunch** about what is producing identified student learning issues, with a focus on aspects of teacher practice;
- Undertake professional **learning** to understand how changes to their teaching practice can better support student learning in the identified area;
- **Take action** to implement new teaching practices;
- **Check** on student learning progress to gauge the impact of teacher action on student learning.⁷⁶

The Network was an important forum to support teacher understanding and implementation of the Performance Standards, as one educator explains:

I was a first-year teacher when the Performance Standards were introduced. When my principal asked me a question about what the reading Performance Standards would mean for my teaching, I couldn't answer it. I had never seen the Performance Standards before and I did not know what they were or how to use them. When I joined (the Network) I learnt that Performance Standards are how teachers plan for student learning. The Performance Standards would have just stayed on my shelf if they hadn't been brought into the inquiry process through (the Network).⁷⁷

The important role of the Network of Performance Based Schools (now known as the Network of Innovation and Inquiry) in supporting effective teaching practice is recognised across the province. This historical link between teacher professional development and effective curriculum implementation has informed more recent Ministry and district-led initiatives to connect the two during the roll-out of the renewed curriculum.

⁷⁶ Jensen, Sonnemann, Roberts-Hull, & Hunter, 2016b.

⁷⁷ Interviews with British Columbia educators.

For example, the Ministry has attempted to connect curricular reform with professional development by investing in province-wide, student-free curriculum days. This initiative, which funds districts to facilitate two full days of professional development in each of the first three years of mandated implementation of the renewed Kindergarten – Grade 9 curriculum, gives teachers time to explore the curriculum and implications for their professional practice. Districts, in partnership with the Teachers' Federation, have been given autonomy to plan and organise these days. To date, perceptions of the success of the initiative are mixed.⁷⁸ In districts that have organised these days well, providing both a broad overview of reforms and allowing for deep dives on subject-specific curricular and assessment changes, educators say they have been essential in the transition to the new curriculum. As one educator explains: "We wouldn't be where we are now if we didn't have those days."⁷⁹

District-led professional development has also focussed strongly on the implications of the renewed curriculum for teaching practice. Many districts have devised support for teachers, beyond the twice-yearly curriculum professional development days, to transition to the new curriculum. This support has included the creation of new leadership roles focussed on curriculum implementation, or the repurposing of existing roles to meet this need. For example, one district has created the role *Director of Instruction for Secondary Schools* to support curriculum-driven shifts in instruction.⁸⁰ Others have relied on teacher consultants – experienced educators who are based in district offices and provide subject-specific and general pedagogical expertise – to help teachers address the implications of the renewed curriculum. In some districts, these consultants have focused on the assessment implications of the new curriculum, or made subject-specific deep-dives on the curricular competencies.⁸¹ A teacher consultant from the Delta School District explains that his role is to find the "sweet spot" between "supporting teachers and creating challenge".⁸² Box 4 below contains more information about teacher consultants in the Richmond School District.

Box 4: The role of teacher consultants in Richmond, British Columbia

Teacher consultants in the Richmond School District are a team of exceptional teachers and leaders. Referred to by district leadership as a "research and design team", these educators were chosen for their skill and experience in sharing their expertise with their peers in a school setting. The role of teacher consultant enables them to share their effective professional practice in a more systemic way.

Their recent focus has been on curriculum implementation. Each consultant has specific subject expertise and also provides general pedagogy support. During the recent curricular renewal, they have focused on change management, and especially on supporting people "who want to make the move but are not confident yet".

Source: interviews with teacher consultants in Richmond

While professional development initiatives at both the provincial and district levels help teachers to shift to the new curriculum, many say more systemic support is needed. A recent survey conducted by the British Columbia Teacher's Federation found that curriculum-related professional development activities have "contributed to an increased workload" and that "many teachers perceive that these activities have had little or no impact on their preparedness for implementing the redesigned curriculum".⁸³ The report suggests that teachers would appreciate more and better curriculum-connected professional

⁷⁸ Interviews with British Columbia educators. Several less favourable comments on the curriculum implementation days are featured in British Columbia Teachers' Federation, 2017.

⁷⁹ Interview with a British Columbia educator.

⁸⁰ Interview with a British Columbia educator.

⁸¹ Interview with a British Columbia educator.

⁸² Interview with a British Columbia educator.

⁸³ British Columbia Teachers' Federation, 2017 p. 5.

development opportunities, including a focus on assessment and use of technology, in addition to more detailed curriculum materials to help them navigate the implications of reform for their practice.⁸⁴

Make assessment for learning and teaching

Changes in student assessment at the provincial, district and school level have complemented the shift to a curriculum that “better engages students in their own learning and fosters the skills and competencies students will need to succeed”.⁸⁵ The curriculum renewal has highlighted the need for assessment reform. As one educator explains: “the curriculum has pulled the lid off learning – to then turn around and say you have to assess it in the same way you did before just doesn’t line up”.⁸⁶

There have been two key changes to student assessment at the system level. The first concerns the Foundation Skills Assessment, an annual assessment of reading, writing and numeracy skills for students in Grades 4 and 7. This standardised assessment is a systemic pulse check of student performance that the province uses to inform decisions about “interventions, planning, resource allocation, curriculum, policy and research”.⁸⁷ The province reports the results on the *Information to Support Student Learning* website⁸⁸ and provides districts and schools with information on school performance to inform their own planning and improvement processes.⁸⁹ The assessments have a high profile in British Columbia and are considered high-stakes, at least in part because of the way external bodies have historically used the data to “rank” schools in published league tables.⁹⁰ The assessments remain a key feature of student assessment in British Columbia, but have been updated to better align with the new curriculum (see Table 1 for a summary of changes). The Ministry piloted the revised Foundational Skills Assessment in the Fall of 2016 and the revised, curriculum-aligned assessments are ready to be administered across the province.⁹¹

Table 1: Summary of changes to revised Foundational Skills Assessments

What is the same?	What is new?
Developed by BC educators	Includes a group collaboration activity
Assesses reading, writing and numeracy	Includes a choice of reading themes
Includes online and written components	Includes student self-reflection
Scored locally	Reported on a proficiency scale

Source: Adapted from British Columbia Ministry of Education, n.d.-j

In a second change to assessment, the province has replaced subject-specific exams for senior secondary students with two Graduation Assessments focused on literacy and numeracy.⁹² The new assessments emphasise the province’s focus on literacy and numeracy as “cornerstones of the ongoing curriculum

⁸⁴ Interviews with British Columbia educators; British Columbia Teachers’ Federation, 2017.

⁸⁵ British Columbia Ministry of Education, n.d.-e.

⁸⁶ Interviews with British Columbia educators.

⁸⁷ British Columbia Ministry of Education, n.d.-j.

⁸⁸ British Columbia Ministry of Education, n.d.-i.

⁸⁹ British Columbia Ministry of Education, n.d.-j.

⁹⁰ Fraser Institute, n.d.

⁹¹ British Columbia Ministry of Education, n.d.-j.

⁹² British Columbia Ministry of Education, n.d.-h. The first numeracy assessment was administered during the 2017/2018 school year; the first literacy assessment will be administered during the 2019/2020 school year.

transformation”.⁹³ Graduating students will also be required to undertake a capstone project in the new Career Education subject, to enable them to demonstrate their learning and growth in an area they hope to pursue after graduation.⁹⁴

Removal of the subject-specific provincial exams has profound implications for teaching and assessment in the senior grades. Responsibility for subject-specific assessment is now almost wholly vested in schools and teachers. This shift has opened up the possibility of more targeted forms of teaching and assessment. One senior physics teacher described how the renewed curriculum and changes to assessment have enabled him to, for example, spend three weeks on a friction laboratory task to allow his class to explore ideas “like real scientists”, instead of the single day he allowed himself when he “had to get through a checklist” of content that might be tested on the provincial exam.⁹⁵ The teacher said he is now able to take a portfolio-based approach to assessment, allowing students to demonstrate their learning over time by including, for example, several drafts of their report on the friction laboratory.⁹⁶

Yet the move away from provincial exams has troubled some teachers, even those who formerly argued against them.⁹⁷ Because school reporting structures have not kept up with curriculum and assessment changes, teachers in many schools are still awarding percentage grades while pursuing a more flexible approach to student assessment and, sometimes, despite not internally moderating their professional judgements.⁹⁸ As one teacher explains: “it’s an uneven, uncalibrated measuring stick. We think we can measure (student learning) one part in 100, but we can’t. There’s no validity.”⁹⁹

The implications for post-secondary pathways, including admission to university, are clear. In response, some post-secondary institutions are beginning to consider how to change their admissions process now that schools are less likely to act as rigorous “sorting institutions”.¹⁰⁰ In part because they perceive a misalignment between the curriculum, student assessment, and school reporting practices, some teachers are holding tight to the outdated provincial exams, drawing on banks of past questions to create similar assessments of student learning.¹⁰¹ For these teachers, the curriculum renewal and associated assessment reforms are yet to drive meaningful changes to practice.

In classrooms, the renewed curriculum has also created a focus on student assessment against the core competencies. On top of assessments of student learning related to the curriculum learning standards, British Columbia’s Student Reporting Policy requires schools to provide parents with summative reports that include student self-assessment of core competencies for Kindergarten – Grade 9.¹⁰² Students must refer to the core competency learning progressions to articulate their own growth in these areas (Figure 4 is an excerpt from the Communication learning progression).¹⁰³ Guidance from the Ministry is clear that student self-assessment against the core competencies may take different forms. Younger students, for example, might self-assess in conversation with their teachers (see Box 5). Older ones might choose to create a “learning map” that describes their “strengths and stretches” in relation to a specific core

⁹³ British Columbia Ministry of Education, 2017c.

⁹⁴ For more information on the capstone project, see: British Columbia Ministry of Education, 2016e.

⁹⁵ Interview with British Columbia educator.

⁹⁶ Interview with British Columbia educator.

⁹⁷ Interview with British Columbia educator.

⁹⁸ Interview with British Columbia educator.

⁹⁹ Interview with British Columbia educator.

¹⁰⁰ Interview with British Columbia educator.

¹⁰¹ Interview with British Columbia educator.

¹⁰² British Columbia Ministry of Education, 2016d.

¹⁰³ Interview with British Columbia educator.

competency.¹⁰⁴ Irrespective of the form it takes, student self-assessment promotes metacognition and underlines the importance of the core competencies to the future life and work of educated citizens.

Box 5: Questions teachers might use to help students self-assess against the core competencies

Ministry advice to teachers suggests that “one of the ways that teachers can help students clarify their thinking and articulate their individual profiles is through open-ended and probing questions” that make multiple connections between the three broad categories of core competencies: communication, thinking, and personal and social competencies. Sample questions provided in Ministry support documents include:

- How do you show that you were listening thoughtfully? In what ways did your listening contribute to the group’s understanding?
- How does a (topic or question) tie in with what you’ve learned before? How has your thinking about a (topic or question) changed? What made it change?
- Do you agree with this (statement, opinion or hypothesis)? What evidence is there to support your answer?
- How do you come up with ideas when you want to make something new at school or at home? Tell me about a time when you felt really good about a new idea you had.
- What contribution have you made to our school that you feel good about? How did you start doing that?
- How do you use your strengths and abilities in your family, relationships, and community?
- What do you do to help yourself when you are feeling a bit discouraged about your work?

Source: Adapted from British Columbia Ministry of Education, 2017d

Curriculum renewal in British Columbia, including the shift to a more competency-based approach, has raised questions about the purpose of student assessment. As one teacher explains: “You have to ask yourself why you are assessing – is it for feedback or is it for reporting?”¹⁰⁵ The new curriculum emphasises the importance of the former, but in virtually all school systems the answer to the teacher’s question will be: for both. The authors of the 1988 Royal Commission report, *A Legacy for Learners*, explained:

*We need more and better information about what happens in classrooms and how curriculum is actually implemented. That is not to say that we harbour suspicions that teachers are derelict. Quite the contrary: we need to know how teachers implement programs successfully, how they decide what topics are (or are not) appropriate for their students, how they decide which instructional practices to employ, and how they cope with the broad range of student abilities, interests, and attitudes.*¹⁰⁶

Indeed, it is important that assessments provide students with meaningful feedback about their learning and progress. It is also vital that structures are in place for parents, schools, districts and state or provincial leaders to know that the curriculum is being implemented and students are learning.

Changes in curriculum and assessment have only partially flowed through to reporting. As one teacher explains: “Contemporary modernisation around assessment slides away when it comes to reporting. Everyone is OK to talk about assessment for learning, but that doesn’t mean there has been flow through.”¹⁰⁷ One district leader says her team “has suspicions” about school leaders who are choosing not to implement the school curriculum, but the district doesn’t yet have the information it needs to engage in constructive professional conversations about doing better.¹⁰⁸ The reforms to curriculum and

¹⁰⁴ Interview with British Columbia teacher. Example of a task that takes this approach is included in Appendix 1.

¹⁰⁵ Interview with a British Columbia educator.

¹⁰⁶ British Columbia Ministry of Education, 1988.

¹⁰⁷ Interview with a British Columbia educator.

¹⁰⁸ Interview with a British Columbia educator.

assessment are beginning to drive change in classrooms, but more work is needed to prove they are working – without curtailing effective practice. To this end, the Ministry is currently working on changes to the provincial reporting policy.

Lesson three: support innovation while maintaining rigorous standards

Enabling innovation was central to curriculum renewal in British Columbia. The 2012 regional working sessions provided the Ministry with clear direction:

*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.*¹⁰⁹

The challenge for British Columbia, as in all forward-thinking education systems, is to enable innovation while also ensuring the curriculum is taught and rigorous standards for learning are maintained. The authors of the renewed curriculum have sought to achieve this in several ways. First, by streamlining the curriculum to create space and time for teachers to pursue targeted instruction while taking care to emphasise the reduced number of essential learning standards and make them easily accessible and understandable. Second, by crafting a curriculum that encourages the use of technology to explore the “Big Ideas” and develop the relevant competencies and content knowledge. Third, by taking care to consult with educators to identify innovative practice already occurring in the school system and embed and incentivise best practice through the curriculum design process.

Streamline the curriculum and make it accessible and engaging

Curriculum “overcrowding” is a common complaint in many systems, and before the recent reforms, British Columbia was no exception. The *Integrated Resource Package* (old curriculum) was an extensive compilation of subject and grade specific prescribed learning outcomes, as well as assessment, planning and program delivery advice. The *Mathematics 8 and 9 Integrated Resource Package*, for example, was 89 pages long.¹¹⁰ As one teacher explains, under the old curriculum “we were very content focussed. Our curriculum was a checklist.”¹¹¹

The renewed curriculum looks very different. Structured around the “Know, Do, Understand” model, the curriculum for each subject and grade is about a page long (see Figure 9 for an example). The digital version of the curriculum contains embedded “elaborations”: hyperlinks that educators can hover their cursor over to find more detailed information about specific aspects of the curriculum. For example, the hyperlinked elaboration for “elements of story”, the first content learning standard in the example below, is “character, plot, setting, structure (beginning, middle, end), and dialogue”.¹¹²


¹⁰⁹ British Columbia Ministry of Education, 2012.

¹¹⁰ British Columbia Ministry of Education, 2008.

¹¹¹ Interview with a British Columbia educator.

¹¹² British Columbia Ministry of Education, 2016a.

Figure 9: Grade 2 English Language Arts curriculum



Area of Learning: ENGLISH LANGUAGE ARTS

Grade 2

Ministry of Education

BIG IDEAS

Language and **story** can be a source of creativity and joy.

Stories and other **texts** connect us to ourselves, our families, and our communities.

Everyone has a unique **story** to share.

Through listening and speaking, we connect with others and share our world.

Playing with language helps us discover how language works.

Curiosity and wonder lead us to new discoveries about ourselves and the world around us.

Learning Standards

Curricular Competencies

Using oral, written, visual, and digital **texts**, students are expected individually and collaboratively to be able to:

Comprehend and connect (reading, listening, viewing)

- **Read fluently at grade level**
- Use sources of information and **prior knowledge** to make meaning
- Use developmentally appropriate **reading, listening, and viewing strategies** to make meaning
- Recognize how different **text structures** reflect different purposes.
- **Engage actively as listeners, viewers, and readers**, as appropriate, to develop understanding of self, identity, and community
- Demonstrate awareness of the role that **story** plays in personal, family, and community identity
- Use personal experience and knowledge to connect to **stories** and other **texts** to make meaning
- Recognize the structure and elements of **story**
- Show awareness of how **story in First Peoples cultures** connects people to family and community

Create and communicate (writing, speaking, representing)

- **Exchange ideas and perspectives** to build shared understanding
- Create **stories** and other **texts** to deepen awareness of self, family, and community
- Plan and create a variety of **communication forms** for different purposes and audiences
- Communicate using sentences and most conventions of Canadian spelling, grammar, and punctuation
- Explore **oral storytelling processes**

Content

Students are expected to know the following:

Story/text

- **elements of story**
- **literary elements and devices**
- **text features**
- **vocabulary associated with texts**

Strategies and processes

- **reading strategies**
- **oral language strategies**
- **metacognitive strategies**
- **writing processes**

Language features, structures, and conventions

- **features of oral language**
- **word patterns, word families**
- **letter formation**
- **sentence structure**
- **conventions**

Source: British Columbia Ministry of Education, 2016c

Though the new curriculum looks very different to the old one, many educators believe the learning standards are very similar to those featured in the old curriculum.¹¹³ One educator explains: “The idea is that the curriculum has been streamlined – there are now fewer learning standards to hit, though it doesn’t look wildly different in terms of content in many subject areas.”¹¹⁴ The curriculum development teams have taken care to develop a consolidated list of content standards, in each subject and for each grade, that cover essential topics and complement the curricular competencies and “Big Ideas” in order to ensure cohesion across and within grade levels and subject areas.

The intent behind the shorter list of learning standards, along with a stronger focus on competencies and “Big Ideas”, is to give teachers the time and space they need to support student learning. A one-page curriculum gives teachers more flexibility to plan their units and lessons and to decide where they need to spend more or less time based on their professional assessment of student learning. Ideally, this extra space and time will support innovative teaching practice that better meets the learning needs of all students.¹¹⁵ While some educators, such as the senior physics teacher described in the above section, have embraced this opportunity, it would be wrong to suggest the new curriculum has already promoted widespread innovation across the province. One educator says: “I would love to say that the freedom has promoted innovation, but it’s only in small pockets. At my school, it’s being driven by me – the school principal.”¹¹⁶ Changing the behaviour of professionals at scale takes time and concerted planning.

¹¹³ Interviews with British Columbia educators.

¹¹⁴ Interview with British Columbia educator.

¹¹⁵ British Columbia Ministry of Education, 2012.

¹¹⁶ Interview with a British Columbia educator.

Nevertheless, through its curriculum reforms, British Columbia has created some of the key enabling structures and conditions to help encourage innovation across the province, without losing sight of systemic expectations for what students should know, understand, and be able to do.

While many have embraced the curricular changes, some educators and parents are wary of the stripped-back model. Some wonder how the province will maintain rigorous educational practice without being prescriptive about what is being taught. One educator says: “There is a lot of fear in the parent community that we’re no longer focusing on outcomes. It looks different now to what school looked like for them.”¹¹⁷ While the Ministry has sought to engage and educate parents, a recent curriculum survey conducted by the Teachers’ Federation highlighted the need for more parent education to reduce feelings of uncertainty over the new curriculum.¹¹⁸

The critical importance of maintaining the rigour and high expectations established in the curriculum through to the classroom level while encouraging more innovative teaching practice is also an “active conversation” in many districts and schools, as it is in many places globally.¹¹⁹ This conversation will likely have implications for approaches to assessment and reporting, and also to the provision of supports. For example, some educators believe they would benefit from access to more high-quality instructional materials to help them to implement the intended curriculum with rigour.¹²⁰

Use technology to strengthen teaching, learning and reporting

The renewed curriculum has compelled educators across British Columbia to consider how they might better use technology to support effective teaching and learning. Of course, the internet and tablet computers predate the new curriculum, but as one educator said, “people weren’t asking the question (about how to use them) as much when they had the old curriculum”.¹²¹ They didn’t need to: the *Integrated Resource Package* specified virtually all the content they needed to teach. The stripped-back content learning standards, along with the focus on curricular competencies and “Big Ideas”, has spurred teachers to consider how students might gather and communicate information, and how their learning might be communicated to parents in more flexible and innovative ways.

Educators begin by asking how they can best support their students to use technology to access information in a way that will aid their learning. Across the world, education progressives increasingly emphasise the role of Google in supporting student inquiry. Yet research pours cold water on the idea that all students can build content knowledge via Google and the internet all the time.¹²² As is often the case in education, the Matthew Effect of accumulated advantage applies here, too: irrespective of the mode of transmission, students who already possess a solid foundation of knowledge are better placed to consume related information and make meaningful connections, while students who do not possess this content knowledge are disadvantaged.¹²³ Asking students to use Google to inform their learning is a bit like asking them to use the library: effective, if they understand what they are looking for, and why.

Recognising this, British Columbian educators with specific technological expertise are working to build “meaningful digital literacy in students” and “curating entry points” to online information to more effectively structure student learning.¹²⁴ One such educator is helping students in one school to answer the questions: “When I’m trying to educate myself, how do I know when I’m done? How do I use my digital literacy skills

¹¹⁷ Interview with a British Columbia educator.

¹¹⁸ British Columbia Teachers’ Federation, 2017.

¹¹⁹ Interview with a British Columbia educator.

¹²⁰ British Columbia Teachers’ Federation, 2017.

¹²¹ Interview with British Columbia educator.

¹²² Hirsch, Jr., 2016.

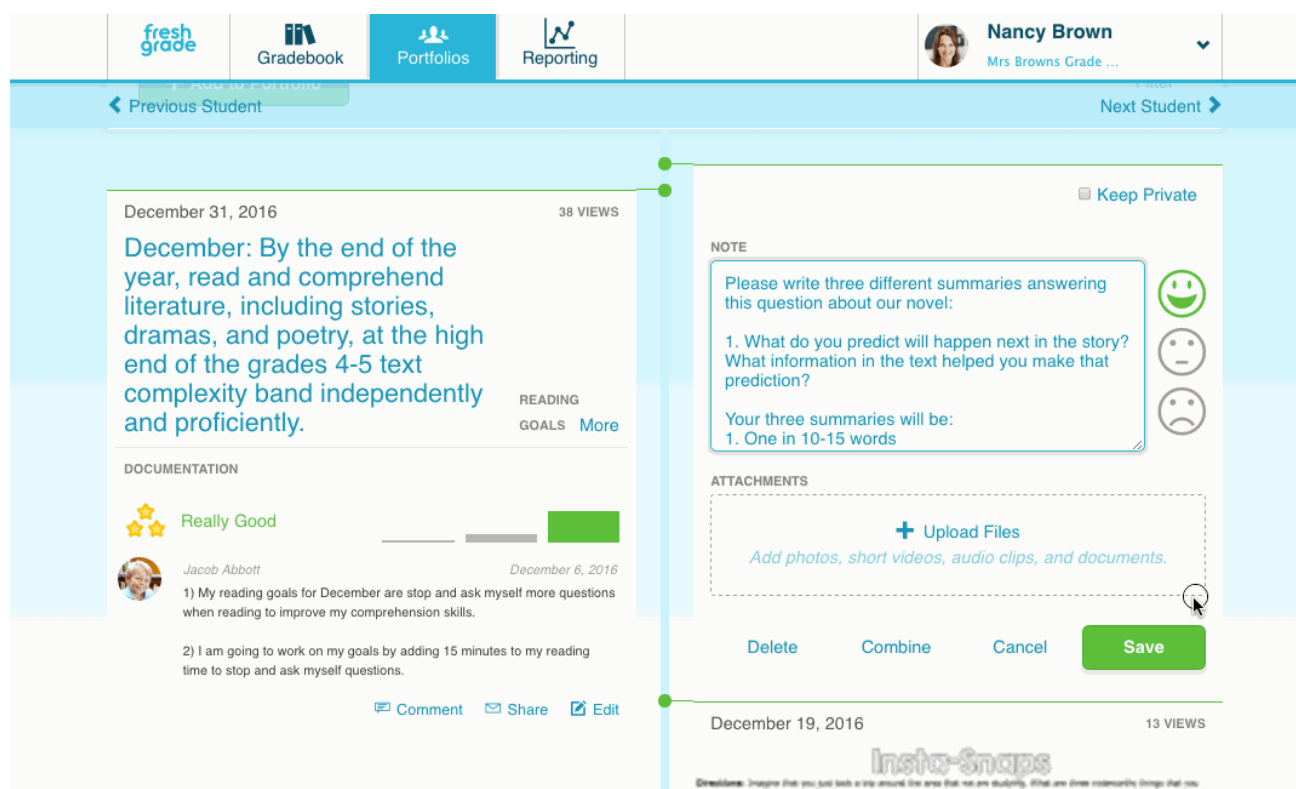
¹²³ Hirsch, Jr., 2016.

¹²⁴ Interview with a British Columbia educator.

to learn and find other perspectives, instead of just reinforcing my own?”¹²⁵ While most students likely use technology to source information and express themselves daily, this does not necessarily mean that these skills are easily transferrable to subject-specific questions and “Big Ideas”. The onus is on educators to help students use technology in an educationally productive way.

The second question educators have is: how can teachers, students and parents use technology to express and engage with student learning? The curriculum’s focus on personalised learning and aligned changes to assessment have made this question urgent. For example, many schools and districts have begun to use online portfolios of student work to communicate learning and growth to students, teachers and parents.¹²⁶ These portfolios, hosted on platforms such as Fresh Grade¹²⁷ and Google Sites, enable teachers to post tasks, and students to post work and reflections on their learning. Teachers and parents can view these posts and publish feedback, comments and encouragement (for an example of what this looks like on the Fresh Grade platform, see Figure 10). This method of communicating and reporting learning and providing feedback has clear advantages over more traditional methods: it is more flexible and timely than traditional “report card” measures (though schools provide these too) and allows for a greater expression of student and teacher voice than is typical.

Figure 10: Example Fresh Grade portfolio page



Source: Fresh Grade, 2017

The renewed curriculum has alerted educators to the potentially profound benefits of technology for learning, but it has also made them more aware of their resourcing and professional development needs in this area. As one educator says, “One of the big complaints about the curriculum is that some schools

¹²⁵ Interview with a British Columbia educator.

¹²⁶ Interview with British Columbia educators.

¹²⁷ For more information, see: <https://www.freshgrade.com>.

don't have enough technology to support it."¹²⁸ The recent Teachers' Federation curriculum survey underlines this point: teachers believe they need technology to bring the new curriculum to life, and not all teachers believe their schools are sufficiently resourced to do this.¹²⁹ Educators also need support to know how to use technology effectively, and to help students to use it effectively. Not all teachers believe they have "meaningful digital literacy" themselves, let alone the capability to instil it in students.¹³⁰ Without such capacities, use of technology in the classroom can be expensive and burdensome¹³¹, and do nothing to support student learning. Technologically adept educators are using technology to implement the renewed curriculum in an effective way – the challenge for British Columbia is to provide more support to other educators looking to join them.

Realise the potential of the middle layer

Like all school systems, the British Columbia school system is complex and characterised by multiple intersecting networks, and formal and informal relationships at different levels. Successful curricular reform means acknowledging this complexity and paying particular attention to the role of the system's middle layer.

A 2015 OECD report, *Schooling Redesigned: Towards Innovative Learning Systems* conceptualises innovation within the "learning eco-system" as occurring within and between three levels, including a middle layer. This layer is the level in a school system between the governing body (the department, district and so on) and the learning environment (usually a school).¹³² It includes a variety of organisations, forces and relationships: a network of schools, the progress of a government initiative, a parents' organisation, or even a school's relationships with parents, and more. It's that shifting and hard to define but vital space in which a school conducts many of its relationships with the wider world, and that is essential to influence when trying to reform a school system.¹³³ Given the collective nature of any curriculum reform, and the emphasis on innovation in the most recent renewal in British Columbia in particular, both the Ministry and outside parties looking to understand development and implementation processes must take into account the interactions among curriculum and networks, communities and initiatives.

The Ministry recognised the role of the middle layer during development of the renewed curriculum by consulting broadly with educators and attempting to capture and codify existing effective practice. This work has kept the Ministry relatively agile while also ensuring it consults broadly. Most importantly, it has derived the renewed curriculum from a deep understanding of what is happening in the field. Indeed, when discussing curriculum and other policies, educators consistently said, sometimes with just a hint of exasperation: "We were already doing it, the Ministry just wrote it down."¹³⁴ The sentiment reflects an approach to policy development that is deeply rooted in current teaching practice and the experiences and perspectives of the middle layer. This approach is arguably key to the success of education policy anywhere, but it is particularly crucial in British Columbia, a system with documented and commonly invoked periods of antagonism between the Ministry, the profession and the union.

The Ministry's strategic and political manoeuvring to achieve curricular change is commonly overlooked, but it should not be. While educators think of the Ministry "as beside and never above" them, and while educators have driven curricular reform and believe that they own it, the Ministry has created the conditions for change. One key decision it made, for example, was to overhaul the entire K-12 curriculum at the same

¹²⁸ Interview with a British Columbia educator.

¹²⁹ British Columbia Teachers' Federation, 2017.

¹³⁰ Interviews with British Columbia educators.

¹³¹ Kleckner, 2017.

¹³² OECD, 2015.

¹³³ OECD, 2015, p. 55.

¹³⁴ Interviews with British Columbia educators.

time. While not all educators agree this was the right decision, many concede that it did force behavioural change. As one says, “the challenge is to put enough stress on the system to change behaviour without getting pushback. I guess it has worked – it’s pretty phenomenal how far teachers have come (with the new curriculum) in a short period of time.”¹³⁵

Another decision the Ministry made was to make drafts of the new curriculum available for around two years before mandating the transition. The rhetoric of “We’re all in this together, it’s OK to make mistakes”, was reinforced by the period for testing and experimentation included in the timeline.¹³⁶ Educators in British Columbia say they prefer to work non-hierarchically with policymakers, leaving their roles “at the door” and committing to a period of working together.¹³⁷ The Ministry understood this preference, and made its change management decisions accordingly.

The role of the middle layer in the British Columbian school system, and in the recent curricular reform specifically, is difficult to quantify. One educator concedes: “I couldn’t even describe it to you as a person who works in it.”¹³⁸ Yet an explanation is important, since it is a key element of curriculum development and implementation in British Columbia. Harnessing and enabling the potential of the middle layer has built momentum for reform and aided buy-in, contributing to the success of the change. However, recognising the role of this layer also means recognising that there will always be a gap between the written curriculum and what is happening in schools across the province. In 1988 the authors of *A Legacy for Learners* recognised this, explaining that “differences between the intended and implemented curriculum are to be expected”.¹³⁹ This is as true today as it was when the report was published. The challenge for British Columbia now is to continue to grapple with the tension between enabling innovation and continual improvement and recognising the role of the middle layer, while also seeking confirmation that the curriculum is being implemented and all students are continuing to learn and grow.

¹³⁵ Interview with British Columbia educator.

¹³⁶ Interviews with British Columbia educators.

¹³⁷ Interviews with British Columbia educators.

¹³⁸ Interview with a British Columbia educator.

¹³⁹ British Columbia Ministry of Education, 1988, p. 85.

References

- BC Ministry of Education (n.d.) BC Performance Standards: Reading Grade 7. Retrieved from https://www2.gov.bc.ca/assets/gov/education/administration/kindergarten-to-grade-12/performance-standards/reading/reading_g7.pdf
- British Columbia Ministry of Education (1988) A Legacy for Learners: The Report of the Royal Commission on Education. Retrieved from http://www.llbc.leg.bc.ca/public/pubdocs/bcdocs/137784/legacyforlearners1987_1988.pdf
- British Columbia Ministry of Education (2008) Mathematics 8 and 9: Integrated Resource Package 2008. Retrieved from <https://www2.gov.bc.ca/assets/gov/education/...to.../mathematics/2008math89.pdf>
- British Columbia Ministry of Education (2012) Enabling Innovation. Retrieved from http://www.bced.gov.bc.ca/irp/docs/ca_transformation.pdf
- British Columbia Ministry of Education (2015a) BC's Education Plan. Retrieved from https://www2.gov.bc.ca/assets/gov/education/kindergarten-to-grade-12/support/bcedplan/bcs_education_plan.pdf
- British Columbia Ministry of Education (2015b) Introduction to British Columbia's Redesigned Curriculum. Retrieved from https://curriculum.gov.bc.ca/sites/curriculum.gov.bc.ca/files/pdf/curriculum_intro.pdf
- British Columbia Ministry of Education (2016a) English Language Arts 2. Retrieved from <https://curriculum.gov.bc.ca/curriculum/english-language-arts/2>
- British Columbia Ministry of Education (2016b) English Language Arts 7. Retrieved from <https://curriculum.gov.bc.ca/curriculum/english-language-arts/7>
- British Columbia Ministry of Education (2016c) Area of Learning: English Language Arts. Retrieved from https://curriculum.gov.bc.ca/sites/curriculum.gov.bc.ca/files/curriculum/english-language-arts/en_english-language-arts_k-9.pdf
- British Columbia Ministry of Education (2016d) Student Reporting Policy Statement. Retrieved from <https://www2.gov.bc.ca/gov/content/education-training/administration/legislation-policy/public-schools/student-reporting>
- British Columbia Ministry of Education (2016e) Capstone Project. Retrieved from https://curriculum.gov.bc.ca/sites/curriculum.gov.bc.ca/files/pdf/10-12/career-education/en_ce_capstone.pdf
- British Columbia Ministry of Education (2017a) *Student Statistics - 2016/17*. Retrieved from http://www.bced.gov.bc.ca/reports/pdfs/student_stats/prov.pdf

- British Columbia Ministry of Education (2017b) *Teacher Statistics - 2016/17*. Retrieved from www.bced.gov.bc.ca/reports/pdfs/teacher_stats/public.pdf
- British Columbia Ministry of Education (2017c) *Graduation Assessments: Design Framework and Assessment Structure*. Retrieved from <https://curriculum.gov.bc.ca/sites/curriculum.gov.bc.ca/files/pdf/graduation-assessments-design-framework.pdf>
- British Columbia Ministry of Education (2017d) *Supporting the Self-Assessment and Reporting of Core Competencies*. Retrieved from <https://curriculum.gov.bc.ca/sites/curriculum.gov.bc.ca/files/pdf/supporting-self-assessment.pdf>
- British Columbia Ministry of Education (n.d.-a) *Aboriginal Education*. Retrieved from https://curriculum.gov.bc.ca/sites/curriculum.gov.bc.ca/files/pdf/aboriginal_education_bc.pdf
- British Columbia Ministry of Education (n.d.-b) *Career Education*. Retrieved from <https://curriculum.gov.bc.ca/curriculum/career-education/introduction>
- British Columbia Ministry of Education (n.d.-c) *Communication Competency Profiles*. Retrieved from <https://curriculum.gov.bc.ca/sites/curriculum.gov.bc.ca/files/pdf/CommunicationCompetencyProfiles.pdf>
- British Columbia Ministry of Education (n.d.-d) *Core Competencies*. Retrieved from <https://curriculum.gov.bc.ca/competencies>
- British Columbia Ministry of Education (n.d.-e) *Curriculum Overview*. Retrieved from <https://curriculum.gov.bc.ca/curriculum/overview>
- British Columbia Ministry of Education (n.d.-f) *Curriculum Redesign*. Retrieved from <https://curriculum.gov.bc.ca/rethinking-curriculum>
- British Columbia Ministry of Education (n.d.-g) *First Peoples Principles of Learning*. Retrieved from https://www2.gov.bc.ca/assets/gov/education/kindergarten-to-grade-12/teach/teaching-tools/aboriginal-education/principles_of_learning.pdf
- British Columbia Ministry of Education (n.d.-h) *Graduation Assessments*. Retrieved from <https://curriculum.gov.bc.ca/provincial-assessment/graduation>
- British Columbia Ministry of Education (n.d.-i) *Information to support student learning*. Retrieved from <http://www.bced.gov.bc.ca/reporting/systemperformance/>
- British Columbia Ministry of Education (n.d.-j) *New Foundation Skills Assessment*. Retrieved from <https://curriculum.gov.bc.ca/assessment-reporting/new-foundation-skills-assessment>

- British Columbia Ministry of Education (n.d.-k) Programme for International Student Assessment (PISA): Summary of Results for British Columbia 2012. Retrieved from <https://www2.gov.bc.ca/gov/content/education-training/administration/kindergarten-to-grade-12/assessment/national-and-international/pisa>
- British Columbia Ministry of Education (n.d.-l) Progress in International Reading Literacy Study (PIRLS) 2011: Summary of Results for British Columbia. Retrieved from https://www2.gov.bc.ca/assets/gov/education/administration/kindergarten-to-grade-12/assessment/pirls_2011_bc_sum.pdf
- British Columbia Ministry of Education (n.d.-m) Provincial Curriculum and Assessment Development Process. Retrieved from https://curriculum.gov.bc.ca/sites/curriculum.gov.bc.ca/files/pdf/curriculum_development_process.pdf
- British Columbia Ministry of Education Governance and Legislation Branch (2017) School Act: Revised Statutes of British Columbia, 1996. British Columbia Ministry of Education.
- British Columbia Teachers' Federation (2017) 2017 BCTF Curriculum Change and Implementation Survey. Retrieved from <https://bctf.ca/uploadedFiles/Public/Issues/Curriculum/Survey/2017Survey.pdf>
- E. D. Hirsch, Jr. (2016) *Why Knowledge Matters: Rescuing Our Children From Failed Educational Theories*. Cambridge, Massachusetts: Harvard Education Press.
- Fraser Institute (n.d.) School Performance: Elementary and secondary school rankings. Retrieved from <https://www.fraserinstitute.org/school-performance>
- Fresh Grade (2017) Combining Portfolio Elements. Retrieved from <https://care.freshgrade.com/s/article/Combining-Portfolio-Elements>
- Halbert, J., & Kaser, L. (2013) *Spirals of Inquiry for Equity and Quality*. Vancouver: BCPVPA Press. Retrieved from www.bcpvpa.bc.ca/node/108
- Jensen, B., Sonnemann, J., Roberts-Hull, K., & Hunter, A. (2016a) *Beyond PD: Teacher Professional Learning in High-Performing Systems, Australian Edition*. Washington, D.C.: National Center on Education and the Economy.
- Jensen, B., Sonnemann, J., Roberts-Hull, K., & Hunter, A. (2016b) *Beyond PD: Teacher Professional Learning in High-Performing Systems, Australian Edition*. Washington, D.C.: National Center on Education and the Economy.
- Kleckner, J. (2017) 5 Ways That "FreshGrade is NOT Facebook." Retrieved from <http://www.digitalllearningculture.com/2017/10/25/5-ways-freshgrade-not-facebook/>

OECD (2015) *Schooling Redesigned: Towards Innovative Learning Systems*. Paris: Educational Reserach and Innovation, OECD Publishing.

Statistics Canada (2018) *Quarterly Demographic Estimates, October to December 2017*. Retrieved from <http://www.statcan.gc.ca/pub/91-002-x/91-002-x2017004-eng.pdf>

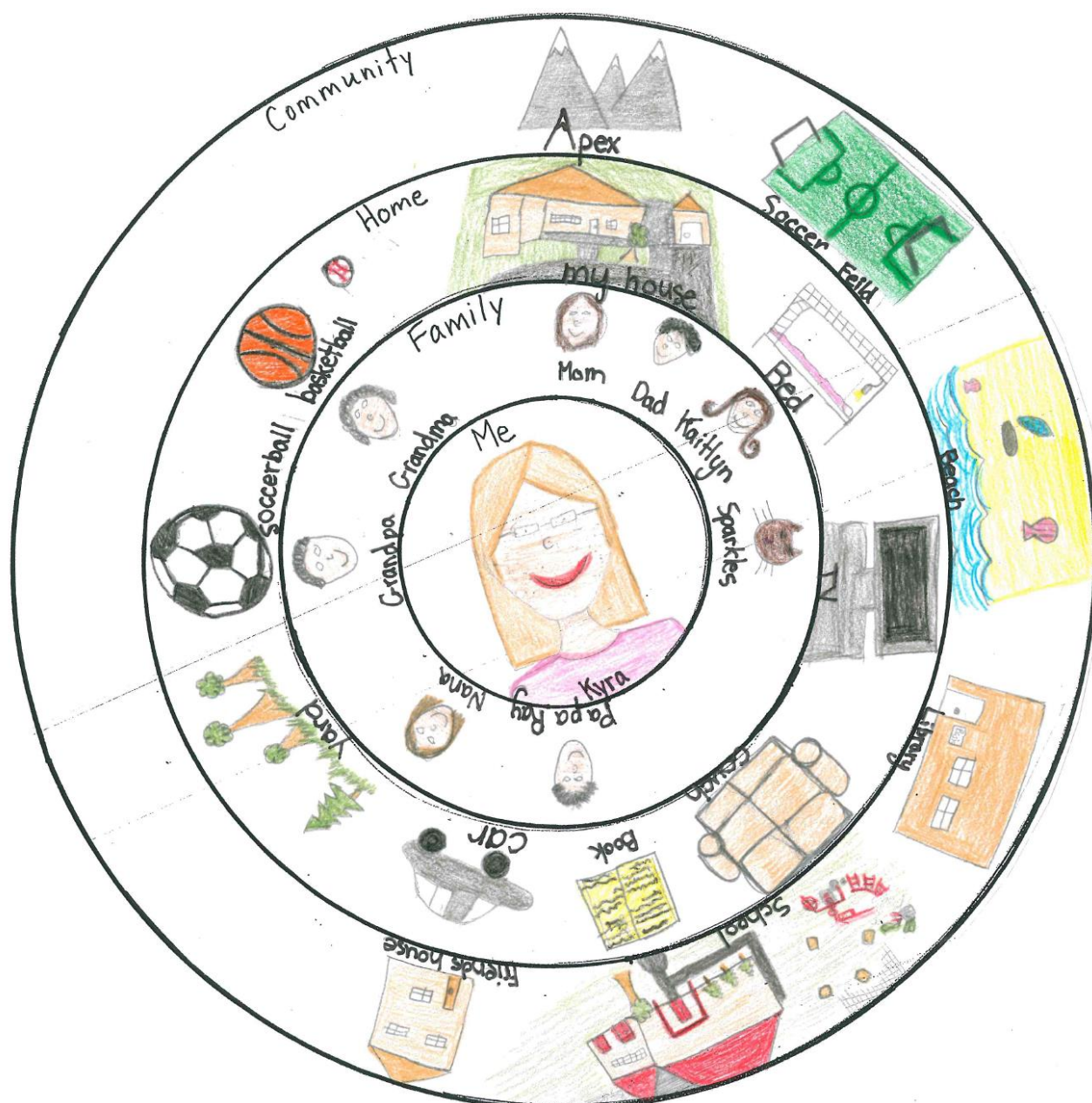
Willingham, D. (2007) Critical Thinking: Why Is It So Hard To Teach? *American Educator*, 8(3), 8–19.

Appendix 1: British Columbia identity student work samples

Grade 1 student



Grade 3 student



Appendix 2: British Columbia Performance Standards

British Columbia Reading Literature Grade 7 Performance Standard – Quick Scale¹⁴⁰

Quick Scale: Grade 7 Reading Literature

This Quick Scale is a summary of the Rating Scale that follows. Both describe student achievement in March–April of the school year.

Aspect	Not Yet Within Expectations	Meets Expectations (Minimal Level)	Fully Meets Expectations	Exceeds Expectations
SNAPSHOT	<i>With support, the student is able to read simple, direct, and short fiction and poetry, but may be unable to finish all parts of an assigned task.</i>	<i>The student is able to read generally straight-forward fiction and poetry, but may have difficulty completing longer selections and tasks. Work may lack detail.</i>	<i>The student is able to read generally straight-forward fiction and poetry and complete assigned tasks. Work is accurate and complete.</i>	<i>The student is able to read fiction and poetry that feature complex ideas and language. The student's work is precise, thorough, and insightful, and often exceeds requirements.</i>
STRATEGIES • check understanding • word skills • knowledge of genres • figurative language	<ul style="list-style-type: none"> • unable to identify problems • tries to sound-out new words • unaware of the features of various genres • has difficulty with figurative or abstract language 	<ul style="list-style-type: none"> • may need prompting to check understanding or adjust strategies • relies on sounding-out and context for new words • with prompting, uses knowledge of familiar genres to predict or confirm meaning • may not recognize figurative language 	<ul style="list-style-type: none"> • checks for understanding; adjusts strategies • uses a variety of strategies for new words • uses knowledge of familiar genres to predict or confirm meaning • recognizes and tries to interpret figurative language 	<ul style="list-style-type: none"> • evaluates own understanding; chooses strategies effectively • uses a variety of strategies for new words; efficient • uses knowledge of a variety of genres to predict, confirm, or interpret meaning • interprets figurative language
COMPREHENSION • story elements • predictions • inferences • details • theme	<ul style="list-style-type: none"> • identifies some main characters and events • predictions and inferences may be illogical or unsupported • may offer inaccurate or irrelevant details in responses • does not interpret themes logically 	<ul style="list-style-type: none"> • describes setting, main characters, and events • makes some simple predictions and inferences; gives evidence when asked • identifies relevant details in responses; may omit some • interprets simple themes 	<ul style="list-style-type: none"> • describes story elements in own words; explains some relationships • makes logical predictions and inferences; when asked, can provide specific evidence • identifies relevant details in responses • interprets obvious themes 	<ul style="list-style-type: none"> • describes story elements in detail; explains relationships • makes insightful predictions and inferences, supported by specific evidence • identifies precise details in responses • interprets complex or subtle themes
RESPONSE AND ANALYSIS • connections to experiences and other selections • reactions	<ul style="list-style-type: none"> • makes simple, obvious connections to self • reactions tend to be vague and unsupported 	<ul style="list-style-type: none"> • makes obvious connections to self or other selections • offers reactions and opinions; gives some support if prompted 	<ul style="list-style-type: none"> • makes and supports logical connections to self or other selections • offers reactions and opinions with some support 	<ul style="list-style-type: none"> • makes and supports logical connections to self or other selections; may risk a divergent response • supports reactions and opinions with reasons, examples

British Columbia Reading Literature Grade 7 Performance Standard – Full

Rating Scale: Grade 7 Reading Literature

Student achievement in reading literature by March–April of Grade 7 can generally be described as shown in this scale.

Aspect	Not Yet Within Expectations	Meets Expectations (Minimal Level)
SNAPSHOT	<i>With support, the student is able to read simple and direct novels, stories, and poetry that are often quite short, but may be unable to finish all parts of an assigned task.</i>	<i>The student is able to read generally straight-forward fiction and poetry (as described in the chart on page 204), but may have difficulty completing longer selections and tasks. Work may lack detail.</i>
STRATEGIES <ul style="list-style-type: none"> • check understanding • word skills • knowledge of genres • figurative language 	<ul style="list-style-type: none"> • appears unable to monitor own reading; needs help to check for understanding • tends to sound-out new words without considering context or other clues • may be unaware of the features of various genres or unable to see their relevance for specific tasks • often frustrated by language that is not direct, concrete, and literal 	<ul style="list-style-type: none"> • may need prompting to check for understanding and adjust strategies to deal with reading problems or challenging material • tends to rely on sounding-out and context to deal with unfamiliar language • when prompted, uses knowledge of familiar genres to predict, support, and confirm meaning • may not recognize figurative language and attempt a literal interpretation
COMPREHENSION <ul style="list-style-type: none"> • story elements • predictions • inferences • details • theme 	<ul style="list-style-type: none"> • identifies some main characters and events; may be able to explain some simple cause-effect relationships • predictions are often illogical guesses • makes some simple inferences about characters' motivations and feelings; these are not always logical and are often unsupported • may offer inaccurate or irrelevant details in response to questions or tasks • may offer illogical interpretations of a theme or author's message or be unable to provide an answer 	<ul style="list-style-type: none"> • describes setting, main characters, events, and conflict in general terms, often using the exact words of the selection; identifies some simple cause-effect relationships (e.g., a story map); may miss some connections • makes logical predictions • makes some simple inferences about characters' motivations and feelings; when asked, offers some specific evidence from the text as support • identifies relevant details in response to questions or tasks; may omit some • interprets simple themes or messages
RESPONSE AND ANALYSIS <ul style="list-style-type: none"> • connections to experiences and other selections • reactions 	<ul style="list-style-type: none"> • if prompted, makes some simple, concrete, and obvious personal connections • may make some logical connections to other selections with obvious similarities (e.g., two mysteries); often has difficulty because of limited repertoire of previous reading experiences • offers vague, unsupported reactions and opinions 	<ul style="list-style-type: none"> • makes simple and obvious personal connections (e.g., can compare self to story character) • makes obvious connections to other reading or viewing selections, supported by some evidence • offers reactions and opinions about selections, characters, issues, and theme; may need prompting to provide support

¹⁴⁰ BC Ministry of Education, n.d.

	Fully Meets Expectations	Exceeds Expectations
	<p><i>The student is able to read generally straightforward fiction and poetry (as described in the chart on page 204) and complete assigned tasks, including those that require an extended period of time. Work is accurate and complete.</i></p>	<p><i>The student is able to read fiction and poetry that feature complex ideas and language. The student's work is precise, thorough, and insightful, often exceeding requirements of assigned tasks.</i></p>
	<ul style="list-style-type: none"> • checks for understanding; adjusts strategies to deal with specific problems or features of the material • uses context clues, word structure, illustrations, and classroom resources to figure out unfamiliar words or expressions • uses knowledge of story structure and familiar genres to predict, support, and confirm meaning • recognizes and attempts to interpret figurative language 	<ul style="list-style-type: none"> • evaluates own understanding; makes deliberate and effective choices about how to approach challenging material • independently uses context clues, word structure, illustrations, and classroom resources to figure out unfamiliar words or expressions • uses knowledge of an increasing range of genres to support predictions, understanding, and interpretations • interprets figurative language
	<ul style="list-style-type: none"> • accurately describes setting, characters, main events, and conflict in own words, and explains how they are related (e.g., a story map) • makes and justifies logical predictions about the selection and about events "beyond the story" • makes inferences that show some insight into characters' motivations and feelings; provides support with specific evidence from the selection • identifies relevant details in response to questions or tasks • offers logical but obvious interpretations of the theme or author's message 	<ul style="list-style-type: none"> • describes setting, characters, events, conflict, and theme with some detail and interpretation; explains relationships (e.g., a story map) • makes and justifies logical and sometimes insightful predictions about the selection and about events "beyond the story" • makes inferences that show insights into characters and events; provides support with specific evidence from the selection • identifies specific, relevant details in response to questions or tasks • offers logical interpretations of the theme or author's message; may deal with some complex or subtle ideas
	<ul style="list-style-type: none"> • makes logical, relatively straightforward connections between the selection and own ideas, beliefs, experiences, and feelings • makes and supports connections to other reading or viewing selections that go beyond the obvious; with direction, can compare themes • offers reactions and opinions about selections, characters, issues, and themes with some support 	<ul style="list-style-type: none"> • makes logical connections between the selection and own ideas, beliefs, experiences, and feelings; may extend or experiment with the ideas and take risks to offer a divergent response • relates themes and other features of the selection to other reading or viewing experiences; provides convincing evidence • offers reactions and opinions about selections, characters, issues, and themes supported by reasons and examples