

# CURRICULUM ADVISORY PANEL: Recommendations on Direction for Curriculum



**Presented to the Minister of Education, Honourable Adriana LaGrange**

**December 20, 2019**



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# Executive Summary

In spring 2019, the Alberta government announced it would pause work on curriculum to allow time for broader engagement with Albertans. This included gaining a wide range of perspectives to examine the work on new curriculum to date and ensure government was taking the right approach to student learning.

The Minister of Education appointed the Curriculum Advisory Panel in August 2019. This 12-member independent panel was guided by a Terms of Reference that details the mandate the Minister asked them to deliver by December 20, 2019:

1. Advise the Minister on a new Ministerial Order on Student Learning that provides direction on the foundational knowledge, skills and competencies students should attain through the K-12 education system.
2. Advise the Minister on direction for curriculum, with the end student in mind and informed by globally endorsed best practices, jurisdictional research and previous engagement feedback.

## Recommendations

Throughout the fall, the Panel conducted meetings, reviewed research and sources of information, and engaged with education stakeholders to develop recommendations to provide direction for curriculum.

The recommendations reflect the Panel's advice to the Minister and are categorized in the areas of curriculum development, curriculum content, assessment, and the draft K-4 Curriculum (2018).

### Curriculum Development

1. Develop a comprehensive plan to successfully implement a new Alberta Program of Studies.
  - 1.1 Ensure appropriate and adequate resources are broadly available for students and teachers. Alberta's excellence in education is due in part to the quality of teaching resources provided to support curriculum.
  - 1.2 Align resource development to the curriculum, consistent with the recommendations of this report.
  - 1.3 Consider the pace at which curriculum changes are introduced in the system to ensure students and teachers are able to respond effectively to new curriculum.

2. Ensure teachers and students have access to a broad range of learning resources, representing a range of mediums using Alberta Education’s innovative learning platform, new [LearnAlberta.ca](https://www.learnalberta.ca) .

3. Explore options for single-stream course offerings at the high school level by examining the practices of high-performing jurisdictions around the world and the impact of such policies on student success and graduation rates.

4. Update the *Guiding Framework for the Design and Development of Kindergarten to Grade 12 Provincial Curriculum (Programs of Study)* to reflect the impact of any recommendations that are implemented as outlined in this report.

### **Curriculum Content**

5. Introduce new concepts at developmentally appropriate times to ensure the well-being of students remains a top priority.

6. Support opportunities to consult with subject-matter experts throughout the development of curricular content.

7. Ensure knowledge outcomes in curriculum are clear in order to foster student reasoning in each discipline.

8. Integrate awareness and exploration of careers into the curriculum to increase the relevance of career opportunities and development of workplace skills.

8.1 Review the outcomes and recommendations from the Skills for Jobs Task Force to support alignment in curriculum.

9. Provide students with opportunities to learn outside the classroom, including experiences with elements of the workforce and community involvement.

9.1 Undertake an examination of curriculum that can be delivered in a dual structure, similar to the Germanic Model, exploring the definition of skilled trades and how students acquire these skills.

9.2 Expose students to practical work and learning outside the classroom, including participating in volunteer activities that engage students and benefit local communities.

10. Enhance students’ learning of life skills throughout the K-12 curriculum by addressing areas of financial literacy, work readiness, wellness, and goal-setting.

10.1: Review the CALM program and consider if these learning outcomes are best positioned as a discrete course offering and how achievement of the outcomes would be effectively assessed.

11. Create opportunities to bring the needs of Alberta's employers into the curriculum-development process.

12. Ensure First Nations, Metis, and Inuit perspectives and ways of knowing continue to be reflected in curriculum, supporting the ongoing advancement of recommendations from the Truth and Reconciliation Commission's Calls to Action and the calls for justice in the Missing and Murdered Indigenous Women and Girls Final Report.

13. Ensure curriculum reflects the diversity of Alberta's students.

14. Develop a senior high school program of studies in world history.

15. Ensure significant world events are represented in curriculum.

16. Examine teacher certification, teacher education programs, and educator professional learning to support continued quality delivery of curriculum.

### **Assessment**

17. Ensure a rigorous assessment system that builds public confidence, enhances accountability, and provides parents, Albertans, and the Minister with reliable information with respect to student achievement and system performance.

17.1 Ensure assessment is aligned with curriculum and measures students' achievement of defined outcomes.

17.2 Implement a systematic approach that uses standardized formative assessment tools in the evaluation of literacy and numeracy, in grades 1 through grade 5. These can identify where students may require additional support and enable the use of appropriate interventions at the earliest possible stages.

17.3 Continue the use of provincial achievement tests for students in grades 6 and 9.

17.4 Examine the impact of differential weighting of diploma exams to determine the most appropriate distribution.

17.5 Explore other ways that standardized testing can be used to ensure public confidence.

17.6 Design reports of student progress and achievement that result in a high degree of satisfaction by Alberta parents with the information and the manner in which it is provided.

17.7 Support the continued growth and development of teacher assessment skills to support students in the effective achievement of learning outcomes.

#### **Draft K-4 Curriculum (2018)**

18. Ensure all future curriculum aligns to the vision described by the Ministerial Order on Student Learning.

19. Ensure curriculum is written in clear, concise, and unbiased language that enables consistent understanding and application.

20. Ensure curriculum is free from the prescription of pedagogical approaches, such as discovery math.

21. Review Alberta's definitions of *literacy* and *numeracy* to ensure alignment with internationally accepted and endorsed best practices.

22. Within the architecture and design of curriculum, examine the framing of literacy and numeracy to ensure the learning outcomes for these foundational elements of knowledge and skills are clearly articulated.

23. Ensure the architecture and design of curriculum provides an explicit articulation of the subject-specific knowledge required in every subject for every grade. This requires consideration for the addition of an element on explicit knowledge development.

23.1 Ensure there is a specificity in the content, particularly for English Language Arts and Social Studies that provides guidance to teachers for the knowledge students are expected to learn.

23.2 Conceptual knowledge requires a foundation of specific, core knowledge. Ensure the curriculum includes greater specificity in the content that students are expected to master so they may adequately apply the concepts being taught.

23.3 Clarify the specificity of foundational knowledge required in proportion to the relevance of the subject matter. Simplify, streamline, and reduce the number of outcomes with a focus on foundational knowledge.

24. Enhance learning and foundational skill building in mathematics, informed by subject-matter expertise and the use of best practices at levels that are developmentally appropriate and address procedural fluency.

25. Ensure the social studies curriculum reflects a balance of perspectives with respect to the importance of Alberta's resource-rich economic base in relation to the impact on the economy, families, services, and government.

25.1 Ensure the content includes more foundational knowledge-building opportunities with respect to Alberta's economic system, entrepreneurship, the world of work, and the roles and jobs of members of the community.

26. Examine the efficacy of cursive writing for student learning.



# Background



In spring 2019, the Alberta government announced it was pausing the curriculum review process underway at the time. The purpose was two-fold. First, it would allow for broader consultations that could include a wide range of perspectives on curriculum content. Second, curriculum reform should begin with the end in mind, and focus on the key knowledge and skills students should possess at the completion of their high school education. Responding to this mandate, in August 2019, the Minister of Education appointed the Curriculum Advisory Panel to draft a new Ministerial Order on Student Learning and provide advice and recommendations on direction for K-12 curriculum.

The Panel's recommendations are based on the assertion that all students must acquire a solid foundation of core knowledge from which they can build a lifetime of learning, achievement, and success, not only in further education and careers of their choosing, but also in their role as contributors to their local communities and global economies.

The Panel recognizes the impact teachers can have to transform the lives of children. Teachers play a vital role in both developing and delivering K-12 curriculum. Teachers are an active part of Alberta's education system and continue to provide impactful feedback that informs this important curriculum development work.

The Panel understands the sense of urgency felt by many students, parents, and education stakeholders to implement new curriculum. Alberta's students deserve curriculum that reflects today's reality in order to be best prepared for success. This urgency needs to be balanced with government's commitment to taking the right approach for the right reasons for Alberta's children.

The advice and recommendations in this report were developed based on discussions, research, and information reviewed by the Panel throughout the fall 2019. The Panel was also informed by system perspectives of education partners and stakeholder groups, who shared insights and experiences on curriculum development, content, and implementation.

### **Input from education partners**

Panel members heard from a number of education partners who shared their perspectives on Alberta's K-12 education system. During in-person meetings and through written submissions, education partners provided feedback on the curriculum review process, curriculum content, curriculum implementation, resources, professional learning for teachers, and assessment.

The Panel would like to thank all individuals and stakeholders who shared their expertise and insights:

- Alberta Assessment Consortium
- Alberta Catholic Schools Trustees' Association
- Alberta Home Education Association
- Alberta School Boards Association
- Alberta Schools Councils Association
- Alberta Teachers' Association
- Association of Independent Schools and Colleges in Alberta
- Aurora Academic Charter School
- College of Alberta School Superintendents
- Council of Catholic School Superintendents of Alberta
- Federation des conseils scolaires francophones de l'Alberta
- Junior Achievement of Southern Alberta
- Kee Tas Kee Now Tribal Council Education Authority
- Maskwacis Education Schools Commission
- Metis Settlement General Council
- Rupertsland Institute
- The Jewish Federation of Edmonton
- The Jewish Federation of Calgary
- The Palix Foundation

# Direction for Curriculum



## What is working?

The Panel explored curriculum review, development, content, and implementation, and heard from education stakeholders. Guided by this input and information, the Panel made a number of observations with respect to areas that appear to be serving the system well.

### **The Guiding Framework**

The *Guiding Framework for the Design and Development of Kindergarten to Grade 12 Provincial Curriculum* is one example. The *Guiding Framework* sets out a common architecture and design structure for curriculum, an approach to curriculum design Alberta has not previously followed. This comprehensive, foundational framework outlining common structure will make cross-curricular and interdisciplinary learning more accessible for both students and teachers. The *Guiding Framework* clearly defines relevant standards and competencies for curriculum that support a strong foundation for student learning.

## **Draft K-4 Curriculum**

The Panel also reviewed the draft K-4 curriculum, which was posted publicly on new LearnAlberta.ca in December 2018. The draft curriculum follows the architecture and design outlined in the *Guiding Framework* and was developed through a collaborative approach with teachers, subject-matter experts, and system leaders. The architecture of the curriculum brings coherence to the programs of study in the six subject areas and opportunities for interdisciplinary learning are evident. The draft curriculum is informed by clear and appropriate understandings of learners at different stages of development.

It is evident that the concerns many stakeholder identified during development and previous engagement cycles on this draft K-4 curriculum have been addressed. Appropriate attention has been given to the development of literacy knowledge, skills, and strategies; the program reflects the pluralistic and inclusive nature of Alberta society; First Nations, Metis, Inuit perspectives, experiences, and ways of knowing are integrated into all subject areas; and financial literacy is explicitly and coherently addressed in a number of subject areas.

The LearnAlberta.ca platform is well-designed to assist teachers in their planning for all subject areas, supporting cross-curricular planning and instruction. The ability to share resources and support materials among teachers in all areas of the province adds tremendous value to teachers and students.

## **Alberta Students' Performance**

Alberta's students continue to perform near the top of the world in many international and pan-Canadian assessments. With the latest available data from 2016, Alberta's grade 8 students who participated in the Pan-Canadian Assessment Program (PCAP)<sup>1</sup> were number one in Canada in reading and science. Only students in Quebec performed better than Alberta's students in mathematics.

When it comes to international performance, the Programme for International Student Assessment<sup>2</sup> (PISA) ranks Alberta 15-year-old students third in the world for reading and science. Alberta ranks eighth in the world for mathematics remaining ahead of almost all of Canada. Again, Quebec was the only province that performed better than Alberta in mathematics.

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<sup>1</sup> <https://www.cmec.ca/Publications/Lists/Publications/Attachments/381/PCAP-2016-Public-Report-EN.pdf>

<sup>2</sup> <https://www.oecd.org/pisa/publications/pisa-2018-results.htm>



Specific to literacy assessment is the Progress in International Reading Literacy Study (PIRLS)<sup>3</sup> where grade 4 students participate every five years and in 2016 scored 547. This result is well above the international average 511 and has remained stable since 2011.

The Panel acknowledges these strengths in the system while recognizing there is continued room for improvement.

## Starting with the end in mind



Alberta's education system intends to provide students with a world-class experience that will see them succeed in all grades and all subjects. The Panel believes K-12 education gives an opportunity for students to acquire the knowledge, skills, and competencies they will need to succeed in life beyond grade 12, whatever path they choose. With the end student in mind, Alberta's K-12 curriculum also needs to provide capacity for students to develop positive

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<sup>3</sup> <http://timssandpirls.bc.edu/pirls2016/international-results/pirls/student-achievement/multiple-comparisons-of-reading-achievement/>

character elements, demonstrating respect for themselves and others, while having the ability to actively participate in a democratic society and contribute to a changing world.

While there are a number of elements of curriculum and student learning that are going well, the curriculum pause-and-engage process provided an opportunity to examine the current approach and explore areas that could be enhanced.

Students who enter the K-12 education system in 2020 will graduate in 2033. In more than a dozen years from now, the world has the potential to be very different from today. All learners need to be prepared for what may be an uncertain future. They must be confident that the learning they have acquired will enable them to help shape and readily adapt to change in the world around them. Student learning at all levels should be developing the foundational knowledge that will prepare them to respond to and influence the economic, social, and global changes as they evolve in the future. Education must assist in the preparation of all students who are resilient and thrive.

Today's students need to develop the ability to solve problems that have not yet been conceived, and be prepared for careers and technologies that may have not been created yet. Even more important, they must possess the foundational knowledge, skills, and fluency in multiple literacies that will enable them to be active participants in the creation of future careers and technologies.

Building on the good work done so far, and based on research, information, and engagements, the Panel offers a number of recommendations to the Honourable Adriana LaGrange, Minister of Education, for consideration.

# Recommendations and Advice



## Curriculum Development

Curriculum development, grounded in research and global best practices, is the first building block for long-term success of any curriculum revision process. The Panel examined the current approach to development as outlined in the *Guiding Framework*. The Panel considered the engagement feedback from previous public engagements on the draft K-4 curriculum, and spoke with education stakeholder organizations to hear a range of perspectives on the factors critical to the development and implementation of curriculum.

To this end, the following recommendations are offered for consideration.

### **1. Recommendation: Develop a comprehensive plan to successfully implement a new Alberta Program of Studies.**

The best curriculum is jeopardized by failing to properly implement it. To support successful implementation, a plan for developing learning and teaching resources as well as providing

professional learning for teachers, and mechanisms for ongoing teacher feedback on curriculum is crucial.

1.1: Ensure appropriate and adequate resources are broadly available for students and teachers. Alberta's excellence in education is due in part to the quality of teaching resources provided to support curriculum.

1.2. Align resource development to the curriculum, consistent with the recommendations of this report.

1.3 Consider the pace at which curriculum changes are introduced in the system to ensure students and teachers are able to respond effectively to new curriculum.

**2. Recommendation: Ensure teachers and students have access to a broad range of learning resources, representing a range of mediums, using Alberta Education's innovative learning platform, new [LearnAlberta.ca](https://www.learnalberta.ca).**

A balanced approach in the use of digital and non-digital (such as print etc.) learning resources for the effective delivery of curriculum and enhance learning assists in avoiding the potentially negative impacts students may experience from overuse of digital technology.

**3. Recommendation: Explore options for single-stream course offerings at the high school level by examining the practices of high-performing jurisdictions around the world and the impact of such policies on student success and graduation rates.**

Course streaming, commonly referred to as academic versus non-academic streams, has the potential to limit students in their ability to pursue further education and career opportunities. Exploration of models in other jurisdictions and their application in the Alberta context is a valuable exercise to ensuring Alberta is well-positioned for long-term student success in a global economy.

**4. Recommendation: Update the *Guiding Framework for the Design and Development of Kindergarten to Grade 12 Provincial Curriculum (Programs of Study)* to reflect the impact of any recommendations that are implemented as outlined in this report.**

The *Guiding Framework* document outlines the principles, standards, competencies, and architecture and design of future curriculum development in Alberta. With the establishment of a new Ministerial Order on Student Learning and the recommendations provided herein, the *Guiding Framework* should be reviewed and updated to ensure the new vision and direction for curriculum are appropriately reflected. The *Guiding Framework*, as a design document for curriculum, should not reflect pedagogical perspectives.



## Curriculum Content

Curriculum content is the foundation of student learning. The content students learn in the classroom each and every day must be rich in knowledge, developmentally appropriate, and follow progressions that allow students to build understandings in a systematic way.

The Panel has considered perspectives that span the K-12 system, seeking opportunities for improvement that will build long-term success for students at the completion of their high school education.

To this end, the following recommendations are offered for consideration.

**5. Recommendation: Introduce new concepts at developmentally appropriate times to ensure the well-being of students remains a top priority.**

Curriculum should expose students to concepts when developmentally appropriate, recognizing the rights of parents to have input regarding their children's participation in sensitive topic areas.

**6. Recommendation: Support opportunities to consult with subject-matter experts throughout the development of curricular content.**

The quality and accuracy of curriculum should reflect the expert knowledge and advice of subject-matter specialists.

**7. Recommendation: Ensure knowledge outcomes in curriculum are clear in order to foster student reasoning in each discipline.**

Core knowledge content, balanced by developmentally appropriate breadth and depth of learning, is foundational to a student's ability to develop understanding and competence. Knowledge outcomes must be clearly articulated so students understand the purpose of the disciplines they are studying and can reason effectively in those disciplines. Reasoning skills are critical to the development of competencies such as critical thinking, problem solving, managing information and creativity. They are essential to the critical media literacy skills students need when evaluating online or digital sources of information.

**8. Recommendation: Integrate awareness and exploration of careers into the curriculum to increase the relevance of career opportunities and development of workplace skills.**

Increasing the availability of learning related to relevant workplace skills will prepare students for post-high school career opportunities, helping them to build critical foundations for future success in the workplace.

8.1 Review the outcomes and recommendations from the Skills for Jobs Task Force to support alignment in curriculum.

**9. Recommendation: Provide students with opportunities to learn outside the classroom, including experiences with elements of the workforce and community involvement.**

There is value in exposing students to experiences outside the classroom that can build awareness and opportunities on the variety of career paths and choices available to them. Learning is strengthened when students learn in the context of real-world experience and work. Curriculum can be delivered in many ways beyond the classroom context, including in workplaces and employment settings. Curriculum should be flexible to deal with alternative skills models outside the classroom.

9.1 Undertake an examination of curriculum that can be delivered in a dual structure, similar to the Germanic Model, exploring the definition of skilled trades and how students acquire these skills.

9.2 Expose students to practical work and learning outside the classroom, including participating in volunteer activities that engage students and benefit local communities.

**10. Recommendation: Enhance student's learning of life skills throughout the K-12 curriculum by addressing areas of financial literacy, work readiness, wellness, and goal-setting.**

With a variety of life experiences and environmental influences outside of the school context, students may leave grade 12 without the basic skills necessary to transition successfully into life after high school. Alberta's current curriculum for Career and Life Management (CALM) attempts to address these areas of student learning. There are opportunities to embed the elements of learning from CALM across the K-12 curriculum to introduce the necessary concepts at developmentally appropriate stages.

10.1: Review the CALM program and consider if these learning outcomes are best positioned as a discrete course offering and how achievement of the outcomes would be effectively assessed.

**11. Recommendation: Create opportunities to bring the needs of Alberta's employers into the curriculum-development process.**

Employers should have the opportunity to provide ongoing advice on the knowledge and skill requirements Alberta's students need to succeed in the workplace. Understanding the needs of employers with respect to the skills of future workers could enhance student learning throughout K-12 and hold the potential to lead to greater career success upon graduation.

**12. Recommendation: Ensure First Nations, Metis, and Inuit perspectives and ways of knowing continue to be reflected in curriculum, supporting the ongoing advancement of recommendations from the Truth and Reconciliation Commission's Calls to Action and the calls for justice in the Missing and Murdered Indigenous Women and Girls Final Report.**

It is necessary to support learning and cultural understanding of Alberta's First Nation, Metis and Inuit peoples, respecting the historical and current context of their experiences and perspectives.

**13. Recommendation: Ensure curriculum reflects the diversity of Alberta's students.**

Curriculum should provide opportunities and maintain flexibility within learning outcomes to enable all students to explore their unique perspectives and life experiences in their learning.

**14. Recommendation: Develop a senior high school program of studies in world history.**

Citizens today face a range of complex global issues that require a depth of understanding of historical contexts in order to consider their contemporary significance and implications. A program of studies specific to history at the grade 10, 11, and 12 levels, with a diploma exam requirement, would allow students to develop enhanced historical understandings of essential issues in world history at a level of depth and detail not currently available under the Social Studies program.

**15. Recommendation: Ensure significant world events are represented in curriculum.**

The understanding of historical world events and the way in which they contribute to current world understandings and experiences is essential learning for students. For example, the foundational knowledge of the Holocaust and human and cultural genocides, past and present, taught at developmentally appropriate stages, will assist students in building contextual understanding of the people and places in the world around them.

**16. Recommendation: Examine teacher certification, teacher education programs, and educator professional learning to support continued quality delivery of curriculum.**

There is excellence in the teaching profession. The successful implementation of high-quality curriculum is dependent on the high-quality teaching that delivers it. The administration of curriculum requires the continued support for teachers to foster learning environments and deliver learning experiences that elevate all students.

## Assessment

Assessment in any context is a critical factor to determine if the plan put in place is achieving the desired result. Curriculum can be viewed as a plan, outlining key knowledge, skills and competencies students are expected to learn during their K-12 education. While many factors contribute to a student's ability to learn the curriculum, assessment practices provide a mechanism to test student learning against the intended outcomes in the curriculum.

The Panel reviewed assessment results for Alberta students, both at the international, national, and provincial level and spoke with education stakeholder organizations, hearing a range of perspectives on assessment practices. There is continued support for the value in standardized assessments and the information they provide to the student, their parents, and the system. There is also recognition that assessment practices can continue to be improved, reflecting both new curriculum and various approaches to learning.

To this end, the following recommendations are offered for consideration.

**17. Recommendation: Ensure a rigorous assessment system that builds public confidence, enhances accountability, and provides parents, Albertans, and the Minister with reliable information with respect to student achievement and system performance.**

Quality assessment provides assurance that the Alberta curriculum is being taught effectively. It supports public confidence in the education system that the dollars invested are being well spent. Assessment is one mechanism to support the accountability of school divisions, principals, and teachers in assuring children are receiving a quality education.

17.1 Ensure assessment is aligned with curriculum and measures students' achievement of defined outcomes.

17.2 Implement a systematic approach that uses standardized formative assessment tools in the evaluation of literacy and numeracy, in grades 1 through grade 5. These can identify where students may require additional support and enable the use of appropriate interventions at the earliest possible stages.

17.3 Continue the use of provincial achievement tests for students in grades 6 and 9.

17.4 Examine the impact of differential weighting of diploma exams to determine the most appropriate distribution.

17.5 Explore other ways that standardized testing can be used to ensure public confidence.

17.6 Design reports of student progress and achievement that result in a high degree of satisfaction by Alberta parents with the information and the manner in which it is provided.

17.7 Support the continued growth and development of teacher assessment skills to support students in the effective achievement of learning outcomes.

## **Draft K-4 Curriculum (2018)**

The Panel reviewed the draft K-4 curriculum that was developed and shared publicly in 2018. Having spoken with education stakeholder organizations and hearing a range of perspectives on the current state of this draft curriculum, there are elements that should be retained and some that require further revision.

To this end, the following recommendations are offered for consideration.

### **18. Recommendation: Ensure all future curriculum aligns to the vision described by the Ministerial Order on Student Learning**

Using the Ministerial Order on Student Learning as a framework for the articulation of the vision and foundational knowledge students should attain by the end of their K-12 educational experience, curriculum should be inclusive of subject-specific content that will enable this learning.

### **19. Recommendation: Ensure curriculum is written in clear, concise, and unbiased language that enables consistent understanding and application.**

### **20. Recommendation: Ensure curriculum is free from the prescription of pedagogical approaches, such as discovery math.**

### **21. Recommendation: Review Alberta's definitions of *literacy* and *numeracy* to ensure alignment with internationally accepted and endorsed best practices.**

### **22. Recommendation: Within the architecture and design of curriculum, examine the framing of literacy and numeracy to ensure the learning outcomes for these foundational elements of knowledge and skills are clearly articulated.**

### **23. Recommendation: Ensure the architecture and design of curriculum provides an explicit articulation of the subject-specific knowledge required in every subject for every grade. This requires consideration for the addition of an element on explicit knowledge development.**

23.1 Ensure there is a specificity in the content, particularly for English Language Arts and Social Studies that provides guidance to teachers for the knowledge students are expected to learn.

23.2 Conceptual knowledge requires a foundation of specific, core knowledge. Ensure the curriculum includes greater specificity in the content that students are expected to master so they may adequately apply the concepts being taught.

23.3 Clarify the specificity of foundational knowledge required in proportion to the relevance of the subject matter. Simplify, streamline, and reduce the number of outcomes with a focus on foundational knowledge.

**24. Recommendation: Enhance learning and foundational skill building in mathematics, informed by subject-matter expertise and the use of best practices at levels that are developmentally appropriate and address procedural fluency.**

**25. Recommendation: Ensure social studies curriculum reflects a balance of perspectives with respect to the importance of Alberta's resource-rich economic base in relation to the impact on the economy, families, services, and government.**

25.1 Ensure content includes additional foundational knowledge-building opportunities with respect to Alberta's economic system, entrepreneurship, the world of work, and the roles and jobs of members of the community

**26. Recommendation: Examine the efficacy of cursive writing for student learning.**

## Concluding Comments



All students in Alberta begin their educational journey with the promise of a future in which they can achieve their highest potential, live a fulfilling and rewarding life, succeed in a career path of their choosing, and contribute to a democratic society in an ever-changing world.

Alberta's K-12 education system has a tremendous responsibility to support its students. Curriculum must provide the building blocks on which students are enabled to develop the knowledge, skills, and competencies required to live their best lives.

The members of the Curriculum Advisory Panel are honoured to provide advice and recommendations to the Minister about the direction of Alberta's K-12 curriculum. The Panel wishes to acknowledge the outstanding work done by the department of Education to support the Panel's mandate. The recommendations in this report reflect the Panel's belief that core knowledge is foundational to a lifetime of success as a lifelong learner and an engaged citizen, and that today's students must have the opportunity to gain the knowledge, skills and competencies that will support them as they adapt to and lead the changes the future will bring.



# Appendices

## Appendix A: Panel Member Biographies

### **Angus McBeath, Chair**

Angus began his teaching career in Prince Edward Island more than 46 years ago. Upon moving to Alberta, he taught for 12 years with Edmonton Public Schools, subsequently serving in a number of leadership roles. He then moved into various administrative and senior executive roles including Director of Program Development in the Curriculum Division and Superintendent of Continuing Education Services with Edmonton Public Schools before he was appointed Superintendent of Schools in 2001.

As Superintendent of Schools, Angus led the design and implementation of a training and accountability regime for principals and teachers, with a view to dramatically improve principal and teacher performance, student achievement results and high school completion rates. Angus retired from Edmonton Public Schools in 2005, and has since served public education through speaking and consultant roles. Angus has worked for the past 14 years with school districts in Pittsburgh, Oakland and Colorado Springs, in addition to the Kern Family Foundation. He most recently was a senior official at the Advanced Studies in Culture Foundation in Charlottesville Virginia.

Angus has a master of education degree, a bachelor of education degree and a bachelor of arts degree.

### **Jen Panteluk, Vice-chair**

Jen has worked in the non-profit sector for more than 10 years and has a far-reaching background that she has used to increase awareness and support for the United Way, University of Alberta, Alberta Cancer Foundation, Ronald McDonald House Northern Alberta and the Stollery Children's Hospital Foundation. Prior to her recent appointment as the Director of Athlete Experience for ITU World Triathlon Edmonton, she was the CEO of Junior Achievement of Northern Alberta and Northwest Territories.

Jen has both a master of business administration degree and a bachelor of commerce degree. She is also an accomplished athlete having represented Canada at seven triathlon world championships. She received a YWCA Women of Distinction for her athletic accomplishments.



### **Amy von Heyking**

Amy is an Associate Professor in the Faculty of Education at the University of Lethbridge. Her research interests include the history of Canadian schooling, history teaching and citizenship education. She is the author of *Creating Citizens: History and Identity in Alberta's Schools* and has published articles in *Historical Studies in Education*, *Canadian Journal of Education*, and *History of Education Quarterly*.

Amy has authored chapters in *New Possibilities for the Past: Shaping History Education in Canada and Britishness, Identity and Citizenship: The View From Abroad*. She is also the co-editor of *Becoming a History Teacher*. Amy served on the executive board of The History Education Network/Histoire et Éducation en Réseau (THEN/HiER) from 2007 to 2015.

Amy has a PhD in educational policy and administrative studies, a master of arts degree, a bachelor of arts (Honours), first class honours degree, and a teaching certificate.

### **Martin Mrazik**

Martin is a full professor in the Department of Educational Psychology and Faculty of Education at the University of Alberta. He has been a registered psychologist in the province of Alberta since 1996.

Martin's clinical training in school and neuropsychology focused his interests in working with children, adolescents, and adults with a wide range of learning, cognitive, and psychological needs. His primary interests include psychoeducational assessment of children, traumatic brain injury, sports concussions and assessment of neurodevelopmental disabilities. Martin's academic endeavors include publication of multiple book chapters, published journal manuscripts, and national and international presentations. He currently serves as a neuropsychological consultant to the NHL and CFL.

Martin holds a PhD in Clinical Neuropsychology, a master of education psychology degree, a bachelor of science degree and a teaching certificate.

### **Andy Neigel**

Andy has 30 years of operational and leadership experience in the forest industry in both Alberta and British Columbia. He has participated on a variety of boards, including the Alberta Energy Regulator as the chair of the Governance, Audit and Finance Committees and Athabasca University Governing Board, and as the chair, Investment Advisory Group and Advancement Committee. Andy currently serves as principal, Boreal Management Group and CEO, Careers: The Next Generation Foundation.

Andy has previous experience working with Alberta's Ministry of Education; he was part of the Inspiring Education Steering and Implementation Committees (2009 to 2013), Alberta's Task Force for Teaching Excellence (2013 to 2014) and Alberta's Teacher Development and Practice Advisory Committee (2014 to 2015).

Andy has a forest technology diploma, a bachelor of science forestry degree from the University of Alberta and an ICD.D (Institute of Corporate Directors, Director) Designation.

### **Keray Henke**

Keray started his career with the federal government before he joined Alberta Treasury (now the Ministry of Treasury Board and Finance) in 1980. He then served as Director of Finance and Administration with Executive Council before joining the Ministry of Children's Services as Assistant Deputy Minister responsible for finance, human resources, information technology, legal services, administrative support and business and strategic planning. In 2005, Keray was appointed Deputy Minister of Alberta Education and served in this role until his retirement.

Keray was a member of the Board of Directors for Careers: The Next Generation and the United Way of the Alberta Capital Region. He headed the Canadian Delegation of the Education Policy Committee of the Organisation for Economic Co-operation and Development (OECD). He served as chair of the OECD Education Policy Committee from 2009 to 2011.

Keray has a certified management accountant designation, a master of public administration degree and a bachelor of commerce degree.

### **Glenn Feltham**

Glenn was appointed President and CEO of the Northern Alberta Institute of Technology (NAIT) in 2011. As NAIT's sixth president, he led the institute toward its vision of becoming one of the world's leading polytechnics. Under his leadership, NAIT plays an essential role in strengthening Alberta's and Canada's economies through hands-on, technology-based education and applied research in partnership with industry.

Previously, Glenn served as chair of Polytechnics Canada and also chaired the Council of Post-Secondary Presidents of Alberta. In 2013 to 2014, he chaired Alberta's Task Force on Teaching Excellence for the Ministry of Education. Glenn is currently a member of the board of the Canadian Chamber of Commerce.

Glenn has a PhD in accounting, a master of business administration, a bachelor of laws, a bachelor of arts and a bachelor of science degree. He is also a Chartered Professional Accountant and a Fellow of the Chartered Professional Accountants.

**Paulette Hanna**

Paulette has an extensive background within the K-12 education system including as a teacher, school principal, Deputy Superintendent and Chief Superintendent. She has also been a sessional instructor with the University of Calgary, University of Lethbridge and University of Alberta. Most recently, Paulette served as the director of Leadership Learning for the College of Alberta School Superintendents. She was appointed as the Vice-President Academic of Red Deer College in 2014.

Paulette has a doctor of education in leadership degree, a master of arts degree and a bachelor of education degree.

**Miles Smit**

Miles has held diverse roles in the private, not for profit and broader public sectors covering strategy, advisory, risk management, facilitation, governance and program management. He is also co-founder of the Petrarch Institute, a new online tutoring, teaching, and consultancy service specializing in the humanities. He has served on a number of boards, including Tranzac Club of Toronto and Toronto Search and Rescue Marine Unit.

Miles has a PhD degree from the KU Leuven, Belgium, a masters of arts degree, and a bachelor of arts (Honours) degree in philosophy with a second major in art history.

**Nhung Tran-Davies**

Immigrating to Canada at the age of five as a refugee from the Vietnam war, Dr. Tran-Davies and her family settled in Edmonton. Coming from war and poverty, she understood the value of education from a young age. In 2013, she established the Children of Vietnam Benevolent Foundation to help impoverished children with education and to meet their basic needs. She is the author of four children's books and advocates for mastery in the fundamentals of mathematics. She also founded the Kemosa Scholarship for First Nations, Metis and Inuit Mothers Who Write to help effect positive changes through the voices of these Indigenous mothers.

She has been a keynote speaker at various forums, including at the United Nations in Geneva. She is a strong advocate for social justice in education and aims to inspire resilience in students. She also advocates for support of refugees and migrants around the world. This year, she was a recipient of RBC's Top 25 Immigrant Award.

Dr. Tran-Davies completed her medical doctorate at the University of Alberta and has an established family practice in Calmar, Alberta.

## **Sharon Carry**

Sharon devoted more than four decades to a career rooted in her passion for creating opportunities for access and student success at four Alberta postsecondary institutions, including two decades as the first President and CEO of Bow Valley College. During her tenure, Bow Valley became the largest and fastest growing college in Alberta, welcoming some 15,000 students from 142 countries each year, while expanding campuses in the region surrounding Calgary and extending educational services to more than 20 other countries.

A lifelong committed volunteer in her profession and community, Sharon has been recognized with the Alberta Order of Excellence, Queen Elizabeth II Diamond Jubilee Medal, Alberta Centennial Medal, Calgary Award for Education, as one of Canada's Top 100 Most Powerful Women, and with her profession's national Distinguished Service Award. She has received honorary degrees from Olds College, the Southern Alberta Institute of Technology, and the Alberta College of Art and Design (now Alberta University of the Arts). When honoured with a Blackfoot name and headdress, her ceremonialist chose a name which translates to *Lifelong Educator*.

Sharon continues to serve Alberta on the following boards: Credit Union Deposit Guarantee Corporation; Alberta Order of Excellence Council; International Women's Forum; YWCA Calgary Board, and the YW Transformation Campaign Advisory Committee.

Sharon has a masters of communication studies as well as both a bachelor of education and a bachelor degree from the University of Calgary.

## **Ashley Berner**

Ashley is the deputy director of the Johns Hopkins Institute for Education Policy and is an Associate Professor at the Johns Hopkins School of Education. She previously served as the Deputy Director of the City University of New York Institute for Education Policy.

Ashley has published articles and book chapters on the relationship between educational structure and public funding in democratic nations, religious education and citizenship formation, and teacher preparation in different national contexts. Included in her publications is *Pluralism and American Public Education: No One Way to School in 2017*. She consults regularly on projects that examine the academic and civic outcomes of different school sectors. She serves as a gubernatorial appointee to the Maryland Education Development Consortium.

Ashley has a doctorate of philosophy degree, a master of literature degree, and a bachelor of arts (Honours) degree.

## Appendix B: Terms of Reference

### CURRICULUM ADVISORY PANEL KINDERGARTEN TO GRADE 12 PROVINCIAL CURRICULUM TERMS OF REFERENCE

## Context

The Government of Alberta has committed to pause the curriculum review and engage in further consultations that include a range of perspectives from parents, teachers, industry and subject matter experts to ensure K-12 provincial curriculum aligns with the priorities of Albertans.

## Overarching Focus

The Curriculum Advisory Panel (Panel) on Kindergarten to grade 12 provincial curriculum is to provide strategic advice to the Minister of Education on a new Ministerial Order on Student Learning and direction for curriculum.

## Curriculum Advisory Panel Mandate

The mandate of the Panel will be to advise Minister on:

- Advise the Minister on a new Ministerial Order on Student Learning:
  - To reflect the vision for student learning, the Panel will draft a new Ministerial Order that provides direction on the foundational knowledge, skills and competencies students should attain through the K-12 education system.
  - Using this draft as the basis for an engagement process with Albertans on the vision for student learning, the Panel will then recommend a final Ministerial Order to Minister.
- Advise the Minister on direction for curriculum:
  - With the end student in mind and informed by globally endorsed best practices, jurisdictional research, and previous engagement feedback, the Panel will provide advice to Minister on direction for curriculum.
  - The Panel will produce a report outlining their advice, and any related recommendations for Minister.

The Panel may also provide advice to the Minister on other education related matters at the Minister's discretion.

## Support for the work of the Panel

The Department of Education will provide the support required to assist the Panel, including the following:

Arranging for access to information as required, including all relevant documentation.

Providing secretariat support to the Panel.

Orientation to *Freedom of Information and Protection of Privacy Act* (the “FOIP Act”). As public bodies, Alberta Education and The Panel subject to the *FOIP Act*.

## Deliverables

The Panel will provide a report to the Minister by December 20, 2019. The report must deliver advice and recommendations to the Minister on a new Ministerial Order for Student Learning and direction for curriculum.

The Panel shall recommend to Minister a Ministerial Order on Student Learning, informed by input from Albertans, and provide any follow-up clarifications, explanations, or other advice as requested by the Minister or Department of Education, prior to March 29, 2020.

## Term of Membership

Membership will begin as of the date of signing, with a time commitment of approximately eight days. The Panel will be disestablished on March 29, 2020.

## Chair

The Panel Chair will:

- be appointed by the Minister of Education;
- provide leadership of all Panel activities;
- convene and conduct all meetings of the Panel; and,
- provide advice, recommendations and deliverables to the Minister on behalf of the Panel.

The Minister will also appoint a Vice-Chair to fulfill the responsibilities of the Panel Chair in absence of the Chair.

## Appendix C: Research

[Alberta Education, Performance Measurement and Reporting Branch. \(2007/2008\). Employer Satisfaction Survey. Employers of Alberta High School Graduates. Government of Alberta](#)

[Alberta Education, Corporate Planning Branch. \(2012/2013\). \*Business & Industry Report: Employers of Alberta High School Graduates\*. Government of Alberta](#)

[Alberta Education, Corporate Planning Branch. \(2013/2014\). \*Business & Industry Report: Employers of Alberta High School Graduates\*. Government of Alberta](#)

[Alberta Education, Corporate Planning Branch. \(2015/2016\). \*Business & Industry Report: Employers of Alberta High School Graduates\*. Government of Alberta](#)

### **Educational attainment:**

[Distribution of population aged 25 to 64 \(total and with Aboriginal identity\), by sex and educational attainment](#)

[Alberta Education, Annual Report 2018-2019](#)

[Ministry of Education Ontario](#)

### **Learning for the future:**

[Building Skills Connections Series: Alberta in a Nutshell](#)

[Education at Glance 2019 \(OECD Indicators\)](#)

[2018 Education stakeholder surveys summary report](#)

[The Future of Education and Skills Education 2030 \(OECD\)](#)

[Trends Shaping Education 2019 - OECD](#)

