ALBERTA'S PROVINCIAL K-12 CURRICULUM SURVEY

FALL 2016 SUMMARY OF RESPONSES



Alberta Education

Thank you . . . to those who participated in Alberta's Fall 2016 Provincial Kindergarten to Grade 12 Curriculum survey.

During this survey many Albertans gave their feedback on both future curriculum directions and current curriculum content. This is the first time that Albertans have been involved so early on in the provincial curriculum development process. We appreciate the feedback provided, and we will continue to consult with Albertans throughout the process as we work on future Kindergarten to Grade 12 provincial curriculum over the next six years. Once again, thanks.

For more information about our curriculum development process, please visit: https://education.alberta.ca/curriculum-development/

David Eggen Minister of Education

CONTENTS

INTRODUCTION	1			
PART A SUMMARY-FUTURE CURRICULUM DIRECTIONS				
Who Responded to Part A	2			
Feedback and Themes	2			
PART B SUMMARY-CURRENT K-12 CURRICULUM				
Who Responded to Part B				
Survey Part B Overview				
Feedback: Overarching Themes	4			
Part B: Subject-Specific Feedback	6			
Arts Education	6			
Language Arts	7			
English Language Arts (ELA)	7			
French as a First Language (Français)	8			
French Language Arts (FLA)	9			
Mathematics	10			
Sciences	11			
Social Studies	12			
Wellness Education	13			
NEXT STEPS AND CONSIDERATIONS	15			

INTRODUCTION

From October to November 2016, Albertans were invited to participate in a Provincial Kindergarten to Grade 12 (K–12) Curriculum Survey. This survey was the first of many opportunities that Albertans will have (over the next 6 years) to provide input to help inform development of the content of future Kindergarten to Grade 12 provincial curriculum¹ (programs of study) content in Language Arts (English, French, Français), Mathematics, Social Studies, Sciences, Arts, and Wellness Education.

The survey sought to engage teachers, parents/guardians, students, post-secondary professors and instructors, and the broader community about the development of future provincial programs of study to ensure that they prepare young Albertans for success. The survey questions were developed internally by Ministry staff to gather feedback regarding the direction of future provincial curriculum (Part A) and current provincial curriculum (Part B) through an online survey. The survey was made available to Albertans in both English and French.

Further opportunities for Albertans to participate in the survey were made available through the Alberta Regional Professional Development Consortia (ARPDC), which hosted regional face-toface conversations to help respond to the survey.

Part A of the survey was designed to understand the public's level of agreement with the direction outlined in *The Guiding Framework for the Design and Development of Kindergarten to Grade 12 Provincial Curriculum (Programs of Study)* 2016. Respondents to Part A of the survey were invited to continue to complete Part B of the survey.

Part B was designed as an opportunity to provide subject-specific feedback on the current K–12 provincial curriculum. In both Part A and Part B, respondents were asked a number of closed-ended questions and they were also given the opportunity to provide feedback through open-ended questions.

A total of 32,391 individuals responded to Part A of the survey and 25,615 individuals responded to Part B. The survey is considered a non-scientific exercise to gather public feedback, and was successful in obtaining feedback from a large number of Albertans with a broad range of perspectives. While high levels of participation in the survey signals significant engagement with the curriculum development process, it is important to note that sometimes it is difficult to distinguish between respondents' view on "what" ought to appear in provincial curriculum and "how" the actual curriculum is brought to life in the classroom. Because the survey was open to the general public via self-selection, the sample cannot be considered random or representative of Albertans and a margin of error is not reported.

Respondents had the option to answer the entire survey, certain sections, or specific questions. Therefore, the sample sizes and results reflect the feedback of those who responded to each question. In all sections, there were considerably fewer responses to the open-ended questions than for the closedended questions.

Alberta Education contracted Leger, The Research Intelligence Group, to complete the analysis of Part A. Part B was analyzed by Alberta Education staff. This summary report includes key highlights from both Part A and Part B of the survey.

Analysis of the open-ended comments for Part A was completed by Leger using Ascribe text analysis software, aided by human coders. The analysis strategy for the open-ended comments for Part B (Alberta Education staff coding, counting, and clustering) did not employ the use of software. Like all text analysis, these analyses are subjective and can be prone to error.

¹ Provincial curriculum, also known as programs of study, is defined as "what" students are expected to know, understand, and be able to do in each subject and grade. While Alberta Education determines "what" students need to learn in provincial curriculum (programs of study), teachers use their professional judgement to determine "how" students achieve the learning outcomes in the provincial curriculum (programs of study).

PART A SUMMARY – FUTURE CURRICULUM DIRECTIONS

Who Responded to Part A

Number of participants for Part A: 32,391 answered at least one question.

47%	31%	10 %	9%	3%
Parents/ Guardians	Teachers/ Administrators	General Public	K-12 Students	Post-secondary Students

Feedback and Themes

The majority of respondents indicated strong or moderate agreement with various statements to guide future curriculum content development:

Strong Agreement

Goals, Choices, Accountability (97% agree)

Excellence, Perseverance, Lifelong Learners (97% agree)

Integrity & Respect (95% agree)

Competencies to Develop Imagination & Curiosity (94% agree)

Pathways & Preparation for Future Opportunities (93% agree)

Literacy, Numeracy & 21st Century Competencies (92% agree)

Moderate Agreement

Reflect Diversity (78% agree)

First Nations, Métis & Inuit Context (76% agree)

Curriculum Review 4-Year Cycle (75% agree)

Francophone Perspectives & Experiences (65% agree)

Demographic information gathered in Part A indicates that parents/guardians were the largest responding group (15,142 responded), followed by teachers/administrators (10,134), the Alberta general public (3,202), K–12 students (2,853), and post-secondary students (1,000). There were also 59 additional respondents who are affiliated with Alberta's Accredited International Schools.

Most respondents agreed (agreed/strongly agreed) with all of the elements of Alberta's K–12 future curriculum direction, as laid out in the survey questions. These questions reflect the main elements of *The Guiding Framework for the Design and Development of Kindergarten to Grade 12 Provincial Curriculum* (*Programs of Study*) 2016. Respondents agreed more strongly about some of these elements than others. The following statements garnered the highest levels of agreement:

- Students should learn to set goals, make responsible choices, and be accountable for their decisions (97%).
- Students should appreciate excellence, value perseverance and develop positive attitudes towards lifelong learning and well-being (97%).
- Students should have opportunities to learn about and practise the values of integrity and respect (95%).
- Students' imagination and sense of curiosity should develop as they learn to think logically, creatively, and critically about topics (94%).
- K–12 curriculum should open up pathways to careers, the world of work, and post-secondary opportunities, thereby helping to build a positive future for Alberta and preparing students for a more diversified economy (93%).
- Through learning outcomes, curriculum should support the development of literacy, numeracy, and 21st-century competencies (92%).
- K-12 curriculum, in all subjects and in all grades, should enable learning opportunities that are equitable, inclusive, and accessible for all Alberta students (88%).

Respondents indicated moderate levels of agreement with the following:

- K-12 curriculum should reflect the diversity of Alberta's population (78%).
- K–12 curriculum should provide opportunities for students to learn about ways of knowing and diverse perspectives, in historical and contemporary contexts, of First Nations, Métis, and Inuit (76%).
- K-12 curriculum should include and respect the unique perspectives and experiences of Francophones living in Alberta, Canada, and the world (65%).
- Curriculum should be reviewed and updated within a minimum of four years to keep up with research, changing information, and skills that children and youth need to be successful in life (75%).

Open-Ended Comments-Themes

A total of 15,724 Albertans provided responses to the openended question in survey Part A, and a fraction of their comments included some very high-level thoughts and ideas on many curriculum-related topics including:

- Math (10%), particularly challenges with the "new math" or "discovery math" introduced in 2008. Respondents want to see more focus on basic math, math skills, and math facts.
- Skills (7%), including numeracy, social skills, literacy skills, communication skills, essential or necessary skills, practical skills, and computer skills.
- Learning the basics (6%).
- Understanding diverse perspectives and cultures (6%), particularly Francophone perspectives and First Nations, Metis,and Inuit perspectives, notably regarding residential schools.
- Religious perspectives (5%).
- Health (5%), including physical education and mental health.
- Core/fundamental curriculum (5%).
- Inclusion (5%), as it related to all types of learners as well as minority groups.

Other themes mentioned somewhat less frequently included language, culture, history, jobs/careers, gender/orientation, tradition, real world, life skills, financial literacy, exams/testing, critical thinking, sexual education/sexual health, values, and reading and writing. In addition to providing comments about curriculum, some comments were made about the survey questions in Part B.

PART B SUMMARY – CURRENT K–12 CURRICULUM

Who Responded to Part B

Number of participants for Part B: 25,615 answered at least one question.



Survey Part B Overview

Demographic information of respondents revealed that, as with Part A, the largest responding group for Part B was parents/guardians. Of the 35% of respondents who identified as teachers, approximately 40% reported having taught fewer than 10 years, 35% reported having taught 11 to 20 years, and 26% reported having taught more than 20 years.

There was a broad distribution of feedback across subjects and grade levels, with somewhat greater participation in sections pertaining to higher grade levels (lowest for K–3, highest for grades 10–12). Some respondents (35%) were interested in all grades of current curriculum.

Closed-ended questions in Part B were generally structured in two ways: (1) the scale of "Strongly Agree," "Agree," "Disagree," and "Strongly Disagree" on various aspects of the current curriculum; and (2) the scale of "Retain As Is," "Increase Emphasis," and "Decrease Emphasis" to indicate preference on aspects of current curriculum. For all questions, a "Do Not Know" option was also provided.

Feedback: Overarching Themes

Analysis of both closed-ended and open-ended responses in Part B yielded key themes for each subject, as well as overarching themes across multiple subjects. While questions focused on current curriculum, some feedback included comments related to future curriculum as well. The overarching themes include the following:

Broad Support for Current Curriculum Content: Results from the closed-ended survey questions suggest strong support for much of the content in current curriculum across all subjects, indicated by consistent majorities of "Strongly Agree," "Agree," "Retain As Is," and "Increase Emphasis" responses. Generally, there were low "Disagree" responses and particularly low proportions of "Strongly Disagree" ratings for virtually all questions asked. **Basic Skills:** Respondents indicated preference for emphasizing "the basics" in new curriculum, particularly in Language Arts and Mathematics. Feedback related to basic skills varied by subject; for example, spelling, punctuation, capitalization rules, grammar, and language usage were cited in Language Arts; and standard algorithms, recalling results of multiplication, number facts, and procedural understandings of numbers and operations were identified in Mathematics.

Content-Heavy Curriculum: Open-ended responses included many comments on curriculum content—there are too many learning outcomes a teacher has to cover in a limited amount of time. Responses also indicated the need to cut back on breadth to allow students opportunities to develop greater depth in their studies. This contradicts closed-question responses indicating support for retaining or increasing all areas of existing curriculum content.

Course Sequencing: The topic of course sequencing (order of courses) and the broader discussion around the nature of the high school experience was addressed by respondents in several subjects, framed around issues such as developmental appropriateness and student preparedness. There is a desire to see a reimagining of some course sequences.

Preparedness for Adult Life/Careers: To varying degrees, respondents commented on the need for students to leave the K–12 system with a level of preparedness that will allow them to be successful in further studies, in the workplace, and in their communities. Examples include more focus on career development and financial literacy.

Choice and Flexibility: Respondents in various subject areas indicated support for increased choice and flexibility for both teachers and students. These approaches would allow teachers greater independence in tailoring instruction to relevant and meaningful contexts, local issues, and student interests. However, there appears to be tension between support for greater autonomy and flexibility in the classroom and the need for some level of prescriptiveness and standards for what students are to learn in provincial curriculum.

Multiple Perspectives and Diversity: Respondents believe that it is important that students continue to explore multiple perspectives, including diverse cultural, religious, and other perspectives. Respondents commented on the need to maintain the inclusion of Francophone and First Nations, Métis, and Inuit perspectives, with the qualification that perspectives should be balanced, unbiased, and authentic. Cohort responses of certain faith groups were evident in the responses, requesting infusion of faith-based perspectives and content in curriculum.

Disciplinary and Interdisciplinary Opportunities: The need for interdisciplinary (across disciplines) learning opportunities was particularly seen as important in English Language Arts, Science, Social Studies, and Wellness (e.g., career development and financial literacy), although for Social Studies some openended comments indicated a preference for disciplinary (by field of study) learning (e.g., history, geography). In Arts Education, respondents believe that it is important to retain separate courses for Art, Drama, and Music at the elementary level, and separate Instrumental and General Music at the junior and senior high levels.

Skill Development: Respondents in nearly all subject areas expressed a belief in the importance of critical thinking, reasoning, and problem-solving skills. Subject-specific skills include fundamental movement skills, interpersonal and intrapersonal skills and social awareness for Wellness, skills related to "doing Science," and skills related to historical and geographic thinking in Social Studies.

Technology: Respondents expressed need for greater use of technology in school, such as availability of computer science courses, as well as integrated learning in other subjects; for example, digital audio arts in Music and digital spreadsheets and databases in Mathematics.

Knowledge and Employability (K&E) Courses: Most respondents do not appear to have a solid understanding of K&E courses. Respondents who expressed concern noted that the program seems to limit options for students interested in obtaining a high school diploma. Français is a notable exception to this, with respondents appearing to have greater awareness of K&E and fewer concerns.

Other Considerations: Although the survey's focus was on curriculum content, some respondents also commented on pedagogy and specific instructional strategies that they believed would benefit students, as well as having resources and teaching supports. For example, some respondents highlighted the importance of teachers having expertise in the subjects/disciplines that they teach, and the need to engage students in "real-world," hands-on experiences. Note that some of these other considerations are beyond the scope of this survey, but are still captured.

Part B: Subject-Specific Feedback

In the following six subject-area summaries, key survey findings are highlighted, reflecting the themes synthesized from both the open-ended and closed-ended survey questions.

Arts Education

Alberta's current Fine Arts curriculum (grades 1 to 12) is comprised of three disciplines: Art, Music, and Drama. Closedended and open-ended survey results revealed the following:

- Respondents want to see all goals in Art, Drama, and Music at all grade levels retained or increased.
- The results support all levels of Art, including experiences with a variety of mediums.
- Active involvement through singing and playing instruments in elementary music was viewed as very important.
- Current Art, Drama, and Music curricula enable students to explore cultural perspectives.
- All Arts should include diverse cultural perspectives with attention to First Nations, Métis, and Inuit perspectives.
 Comments were also made about faith-based perspectives.
- Elementary Art, Drama, and Music should remain separate and unique (a range of 61% to 73% consider this critical/ important, depending on the Fine Arts discipline and grade level addressed by responses).
- Feedback is more mixed regarding whether Art 10–20–30 and Art 11–21–31 should remain separate and unique (42% consider this important/very important vs. 41% less/not important for Art 11–21–31 and 37% for Art 10–20–30).
- Instrumental and General Music at junior high and senior high should not be combined, and General Music should provide non-performance opportunities for students.

For most goals of the Fine Arts curriculum, the greatest proportions of respondents think that the curriculum should remain as is, with many others thinking that there should be increased emphasis, and fewer wanting to see a decreased emphasis. Respondents expressed desire to increase the emphasis on these particular goals:

- Understanding the impact that art has on culture (45% increase emphasis, 42% remain as is).
- Storytelling skills in Drama grades 1–6 (50% increase, 40–42% retain, depending on the grade level).
- Choral speech in Drama in grades 4–6 (47% increase, 41% retain).
- Performing music in grades 4–6 (51% increase, 43% retain)
- Playing instruments in grades 1–6 (49–55% increase, 39–46% retain).
- Performing music in grades 7–9 Instrumental Music (49% increase, 44% retain) and 7–9 Choral Music (44% increase, 43% retain).
- Creating music in grades 10–12 Instrumental Music (43% increase, 41% retain).
- Approximately equal proportions of respondents think that there should be the same or increased emphasis for improvisation/acting in Drama for grades 7–9 (45% retain, 44% increase), and performing music in grades 10–12 Instrumental Music (45% retain, 44% increase).

In addition to comments about curriculum, other themes raised for all Arts disciplines include the need for quality instruction, and that the Arts disciplines need to be valued in the overall curriculum and receive sufficient funding.

Language Arts

Language Arts programming includes English Language Arts (ELA), French as a First Language (Français) offered in Alberta's Francophone schools, and French Language Arts (FLA) for French Immersion programs. Reflecting the relatively lower extent of Albertans' participation in Français and FLA programming, the number of responses received was lower for these programs than for ELA.

Shared themes across all these Language Arts programs are as follows:

- The programs of study are too dense. Responses indicate that there are too many outcomes to cover in too little time, impeding depth of understanding. Comments also suggest that the curriculum could be clearer in scope and more specific about the skills that need to be addressed.
- Among those who responded, there is support for maintaining all aspects of current curriculum and/or increasing emphasis in all areas. Respondents to the FLA section provided more "do not know" responses than for other survey sections, presumably due to a number of respondents possibly believing that they were answering questions about the French as a Second Language program of studies.
- Respondents want to see increased emphasis in on oral communication, as well as on grammar and language usage.

English Language Arts (ELA)

The analysis of the closed-ended and open-ended responses revealed the following key findings:

- Overall themes revealed in the open-ended questions relate to density and organization of curriculum, basic skills, variety of texts and students having a choice of texts, formal introduction and practice with technology in the classroom, inclusion of multiple perspectives, and the importance of systemic changes and supports for high-quality teaching as means of effectively supporting the curriculum.
- Support for the development of critical-thinking skills, particularly with respect to evaluating information. In addition, survey responses spoke to the importance of developing research skills and the ability to cite sources accurately.
- Responses to the closed-ended and open-ended questions suggest that programs should focus on the development of basic skills, including spelling, punctuation, capitalization rules, grammar, and language usage, as well as a desired focus on the basic skills to enable students to be competent readers and writers.

- There is support for increased emphasis on public speaking and presentation skills.
- Students at all levels should develop stronger functional writing skills. This desire was linked to the creation of a variety of modern texts such as resumés, cover letters, emails, business plans, and reports.
- There exists a strong desire for the removal of Shakespeare as a required author.
- Responses indicated a modest desire for inclusion of texts that embrace the diversity present in Alberta, including a desire for increased Canadian content.
- While 68% of responses indicated that cursive writing should be introduced at Grade 3, the open-ended responses indicated that, given the option, many would choose to introduce handwriting at a higher grade or to remove it from the curriculum.
- Feedback is more mixed regarding the grade at which keyboarding should be introduced, with the greatest proportion of responses (32%) indicating Grade 3, while 20% prefer it be introduced in Kindergarten, 26% in Grade 1, and 21% in Grade 2.
- Respondents indicated some concerns about standardized assessments, including the form of the Grade 6 Provincial Achievement Test and the content and design of Grade 12 ELA Diploma Examinations.
- There is a desire for reimagining course sequences at the senior high level, with concerns expressed about the current ELA 10-1, 20-1, 30-1 sequence and the 10-2, 20-2, 30-2 sequence.
- Support for the Knowledge and Employability (K&E) courses is mixed (grades 8 and 9: 21% believe that the K&E courses meet the learning needs of students for whom the program is intended, while 23% do not; grades 10–12: 24% believe that the program meets needs and 23% do not) and high proportions of "do not know" responses indicate that the majority of respondents are not informed about these courses (55% "do not know" for grades 8 and 9, 54% for grades 10–12).

Respondents tended to indicate that, in most respects, the current ELA curriculum has the right amount of focus on each goal, and many responded that these goals would benefit from additional emphasis. The following goals stand out in terms of larger proportions of respondents thinking increased emphasis is needed (ranges indicate variation by grade):

- Developing oral language skills in K–6 (54–55% increase emphasis, 41% remain as is).
- Applying rules of grammar and language usage in all grades (55–64% increase, 30–38% retain).
- Applying spelling, punctuation, and capitalization rules in all grades (55–63% increase, 31–37% retain).
- Thinking critically about language use in all grades (51–60% increase, 29–40% retain).
- Evaluating information for relevance and quality in grades 4–12 (49–59% increase, 31–44% retain).
- Communicating for a variety of purposes in grades 7–12 (47–51% increase, 38–43% retain).
- Communicating for a variety of audiences in grades 10–12 (47% increase, 41% retain).

French as a First Language (Français)

Both the open-ended and closed-ended responses revealed the following themes: Francophone cultures and identity, student's level of autonomy scale, oral communication, phonemic and phonological awareness, vocabulary development and texts, grammar and rule usage, and cursive writing. The analysis revealed the following:

- Overall themes in the open-ended questions included emphasis on grammar knowledge and processes, oral comprehension and production, vocabulary development and types of texts; support for all students (refugees, learning difficulties, etc.); making the program interesting for all students; emphasis on Francophone cultures and pride in being able to speak French; and the density, complexity, and difficulty in understanding the current program of studies and learning outcomes.
- The student autonomy scale was deemed a valuable tool, but respondents indicated that it would require improvement in order to aide in understanding its use.
- K–3 emphasized increased learning about Francophone cultures, cultural referents, and processes for the development of Francophone identity.
- Grades 4–12 indicated sufficient focus in the current curriculum regarding the development of Francophone cultures and identity.

- Open-ended responses supported the addition of new linguistic and cultural Francophone realities.
- Closed-ended responses (50%) supported the introduction of cursive writing at the Grade 3 level; however, comments also highlighted beneficial aspects of introducing cursive writing as early as Kindergarten.
- Bringing more precision and clarity to the current curriculum was a common theme in all grade groupings, including more precision to the progression of learning.
- Almost three-quarters of respondents believe that the current Knowledge and Employability (K&E) course sequence for Français 10-4, 20-4, and 30-4 meets the needs of the students who take the course. This contrasts with other subjects, such as English Language Arts, where feedback on K&E was mixed and many respondents were likely unfamiliar with the K&E courses.

Areas of curriculum in which respondents wanted to see increased emphasis include the following (ranges indicate variation by grade):

- Oral expression in K-3 (61% increase emphasis, 35% remain as is).
- Reading in K-3 (61% increase, 36% retain).
- Writing in K-3 (66% increase, 30% retain).
- Appreciation of writing as an important communication tool in K–3 (51% increase, 39% retain).
- Focus on different types of text for grades 4–12 (50% increase, 22% retain).
- Developing phonemic and phonological awareness in K–6 (44–56% increase, 38% retain).
- The meaning of words and linguistic structures in all grades (47–59% increase, 25–34% retain).
- Grammar and rule usage in all grades (59–67% increase, 19–31% retain).
- Comprehension skills needed to understand texts in all grades, particularly lower grades (K–3: 64% increase, 31% retain; grades 4–6: 59% increase, 28% retain; grades 7–9: 52% increase, 33% retain; grades 10–12: 47% increase, 35% retain).
- Ability to create their own texts in all grades (46–49% increase, 35–42% retain).
- Oral communication (listening, interacting, presenting) in all grades (55–58% increase, 28–39% retain).
- Ability to analyze a variety of texts critically in grades 7–12 (47–49% increase, 32–35% retain).
- Sharing comprehension and interpretations in grades 7–12 (44–49% increase, 32–40% retain).

- Understanding diverse Francophone cultures and cultural referents in K–3 (50% increase, 36% retain).
- The processes used to develop students' Francophone identity in K–3 (51% increase, 37% retain).

French Language Arts (FLA)

Many of the responses to the open-ended questions were related to the French as Second Language program and not to the FLA program. Analysis of the closed-ended and openended responses revealed the following:

- Overall themes of the open-ended responses across all grades include making the curriculum simpler and clearer, making the student's autonomy scale less confusing, and emphasizing oral communication.
- Results for both the Français and FLA programs demonstrate that the student's level of autonomy scale was deemed a valuable tool; however, in its current format it was found to be easily misinterpreted and would require improvements.
- Closed-ended responses indicated that there is sufficient focus on the development of knowledge and skills for speaking at all grade groupings. On the other hand, responses to open-ended questions showed support for an increased emphasis being placed on developing oral proficiency at all grades.
- Respondents showed support for retaining emphasis on analyzing a variety of texts; knowledge of various genres of texts; sharing criticism, understandings, and interpretations; and ability to create texts at all grade groupings. The closed-ended responses for K–3 indicated strong support for introducing cursive writing in Grade 3 (62%); however, open-ended responses questioned the value of learning this skill.
- Closed-ended responses were split between retaining or increasing the focus on sound and symbol correspondence.
 Open-ended responses supported placing greater emphasis on specific knowledge and skills related to development of phonological awareness in both the K-3 and grades 4–6 sections.
- Closed-ended responses for retaining or increasing the focus on the meaning of words or linguistic structures (semantics) was split; however, open-ended responses stated a need for greater emphasis on vocabulary development at the K-3 level, the grades 7–9 level, and the grades 10–12 level.
 Findings indicated that an increased focus on the meaning of words was desired at the grades 4–6 level.

- At the K–3 grade level, closed-ended responses for grammar and usage rules was split between retaining as is and increasing the degree of emphasis, while more respondents wanted to see increased emphasis for grades 4–6 (39% increase, 34% retain). Responses to the open-ended questions from the K–3 section recommended increased specificity in the program and higher expectations for students. While closed-ended responses were split between retaining or increasing the focus on comprehension skills needed for literary texts in the K–3 level (34% retain and 34% increase) and grades 4–6 groupings (36% increase, 36% retain), open-ended responses indicated support for increased specificity in the program of studies at the K–3 level. Closed-ended responses indicated an even split between retain as is and increased emphasis.
- Within the grades 10–12 grouping, closed-ended responses for developing skills to understand texts were split between retaining as is (32%) and increasing the emphasis (33%).
 Open-ended responses expressed a need for more emphasis on developing reading comprehension skills.

Compared to results for other subjects, FLA results included relatively higher proportions of "do not know" responses and, therefore, lower proportions of agreement. Particularly high proportions of "do not know" responses were noted for grades 10–12 regarding being prepared for the world of work and post-secondary studies (FLA 10-1, 20-1, 30-1: 39% do not know, 38% agree/strongly agree, 23% disagree/strongly disagree; FLA 10-2, 20-2, 30-2: 45% do not know, 32% agree/strongly agree, 22% disagree/strongly disagree).

The following goals garnered high proportions of "increase emphasis" responses relative to "remain as is":

- Understanding the meaning of words or linguistic structures in K–6 (35–38% increase, 34–35% retain).
- Knowledge of various types of texts and text structures in grades 4–6 (39% increase, 34% retain).
- Oral communication for grades 7–12 (40–42% increase, 26–30% retain).
- Understanding words and linguistic structures for grades 10–12 (34% increase, 31% retain).
- Grammar and usage rules (syntax) for grades 7–12 (33–36% increase, 30–34% retain).

Mathematics

The analysis of the closed-ended and open-ended responses revealed the following key findings:

- Survey responses indicated a preference for including concepts related to financial literacy in the curriculum, with over 90% of respondents who strongly agreed/agreed (including a majority strongly agreeing) that financial literacy be included in both grades 4–6 and 7–9.
- The closed-ended responses indicated a need to increase the emphasis on mental mathematics. *Mental mathematics* is defined as making calculations in one's mind without the use of a calculator, pencil and paper, or other aids. Mental math is often used to calculate and estimate efficiently, using number facts and operation strategies. Across all grade-grouping levels, higher proportions of respondents (ranging from 56% to 63%) indicated a preference for an increased emphasis on the use of mental mathematics. The open-ended responses showed that there was not a common understanding of what mental math means. Overall, responses referred to memorizing multiplication tables and having strong number sense as mental mathematics.
- Closed-ended responses indicated a desire to increase emphasis on paper-and-pencil exercises (53–67%).
- Responses indicated a preference to reduce calculator use at lower grades (46% prefer to reduce for grades 4–6) so that mastery precedes use of technology. For grades 7–12, the largest proportions of respondents prefer to keep calculator use at current levels (grades 7–9: 45%; grades 10–12: 49%), with other respondents preferring to see decreased use, even in grades 10–12 (27% decrease vs. 19% increase).
- Closed-ended responses indicate a preference to include some programming and/or coding, particularly in the grades 10–12 curriculum (27% strongly agree, 39% agree).
- Survey responses indicated a preference for algorithmic thinking to be included as an important prerequisite for coding and programming.
- The majority of respondents prefer to see an increase on emphasis of number facts and number operations in K–3 (62% increase, 32% retain).

- The closed-ended responses showed support for explicit instruction of standard algorithms. Algorithms are step-bystep procedures used to solve problems. There are different variations for recording the steps for each operation (addition, subtraction, multiplication, and division). Standard/ traditional algorithms are methods for recording these steps that may be more familiar than others. Nine in ten (89%) respondents strongly agreed/agreed that students should investigate the standard or traditional algorithm as a strategy for addition and subtraction in K-3, while 92% felt this way with respect to the grades 4–6 grouping. The open-ended survey responses referred to increasing proficiency in math basics. There was not a common understanding of what the term "math basics" means. The term was often used to refer to standard algorithms, memorizing multiplication tables, and number facts, as well as procedural understandings of numbers and operations.
- Survey responses indicated specific approaches to mathematics teaching techniques, or pedagogies, as being preferable. There was no one teaching method that prevailed in the feedback. Note: This survey was intended to focus on the "what" of current provincial curriculum, not "how" teachers teach it.
- There were no questions specific to spatial reasoning in the closed-ended questions. However, the open-ended responses indicated decreasing the emphasis, while others called for opportunities to explicitly develop spatial reasoning in students.
- The open-ended responses showed support for the development of authentic opportunities to apply mathematical learnings to solve problems in a variety of meaningful contexts.
- There were no questions specific to post-secondary involvement in the closed-ended questions. However, the open-ended responses indicated a need to liaise with post-secondary institutions while developing, validating, and implementing new curriculum.
- The closed-ended responses revealed generally that the concepts currently learned in Alberta Mathematics programs of study should be retained. The open-ended responses indicated that the curriculum needs to be structured so that teachers have enough time to develop students' conceptual understanding at a developmentally appropriate pace.

Sciences

Closed-ended questions were organized around current programs of study and resulted in a number of related themes. These themes included, at the elementary level (grades 1–6): Understandings, Skills (Science Inquiry), Skills (Problem Solving through Technology), and Attitudes. At the secondary level (grades 7–12), these themes included Knowledge; Skills; Science, Technology, and Society; and Attitudes. The analysis of the closed-ended and open-ended questions revealed the following:

- The open-ended questions indicated a preference to reduce the content to adjust the difficulty of program and create time for deeper exploration of concepts.
- The open-ended questions indicated a desire to increase opportunities to incorporate student choice and flexibility to enhance students' engagement.
- Respondents would like to see retained or increased emphasis on skills, including laboratory skills, to enable more inquiry and hands-on learning.
- Responses identified a preference to either retain or increase emphasis on Science, Technology, and Society (STS) and the environment to make better connections among what students are learning and real-world applications in secondary science. Responses to the open-ended questions suggest that elementary science emphasize connecting science concepts to student experiences and problem solving in the world around them, including outdoor opportunities and integration of technology.

- Responses indicated an interest in increased content related to the environment, including climate change and connections to nature.
- Responses indicated a desire to enhance connections within and across subjects.
- Various suggestions for additions, modifications, and rearrangement of content were provided.
- A percentage of "do-not-know" responses (54%) suggest limited familiarity with Knowledge and Employability (K&E) courses for grades 8–11, with 29% of the responses indicating that the courses meet learning needs versus 17% indicating that the courses do not meet needs.

Respondents tended to prefer retaining or increasing emphasis on all current curriculum goals. Increasing emphasis is preferred for the following:

- Science Inquiry in grades 1–3 (48% increase, 47% retain) and grades 4–6 (52% increase, 43% retain).
- Problem Solving through Technology in grades 1–3 (46% increase, 44% retain) and grades 4–6 (52% increase, 41% retain).
- Skills foundation in grades 7–9 (52% increase, 42% retain), for Science 14–24 (43% increase, 37% retain) and for Science 10–20–30 (equal proportions of 43% for increase and retain).
- Disease Defence and Human Health in Science 14–24 (equal proportions of 38% for increase and retain).



Social Studies

The analysis of the closed-ended and open-ended questions revealed the following:

- Open-ended themes included developmental appropriateness; disciplinary knowledge and skills; interdisciplinary approach; providing choice and flexibility; topic variety; multiple perspectives; instruction and resources; respect, belonging, and active, responsible citizenship; number of learning outcomes; history; geography; and structure and content.
- Respondents indicated that efforts should be made to ensure that curriculum be developmentally appropriate, logically sequenced, and allow for both skill development and knowledge acquisition. Respondents who had an awareness of high school course sequencing, including Knowledge and Employability (K&E) courses, were more likely to indicate that course sequencing (i.e., -1, -2, -4) is meeting the needs of students (48%) than not meeting students' needs (24%).
- Responses indicated that the amount of content/number of learning outcomes be reduced in future curriculum to offer more flexibility at the classroom level.
- Responses to the closed-ended questions demonstrated a generally held view that all directions and outcomes of the current curriculum have about the right amount of emphasis. For those who prefer to change the amount of emphasis, the preference is typically to increase emphasis rather than decrease, for most parts of the curriculum.

- Support was expressed for retaining an emphasis on active, responsible citizenship, and for providing opportunities for students to develop, practise, and maintain skills related to citizenship.
- Responses indicated interest in having students engage in disciplinary learning, particularly in history and geography, and in providing opportunities for students to explore disciplines of interest.
- Preference was shown for an interdisciplinary approach to Social Studies (supported by 67% of responses).
- Responses indicated that there should be choice and variety in topics studied, with flexibility to tailor instruction to relevant, meaningful contexts, current and local issues, and student interests.
- Responses indicated that it was important to ensure that students continue to explore multiple perspectives, including diverse cultural, religious, social and other perspectives and that Social Studies maintain inclusion of Francophone and First Nations, Métis, and Inuit perspectives, ensuring that they are addressed in a balanced, unbiased, and authentic manner.
- Responses indicated limited awareness or understanding (52–53% "do not know" responses) of the grades 8–11 Knowledge and Employability (K&E) courses, with those aware being more likely to indicate that K&E is meeting student needs (28–29%) than not meeting them (18–20%).
- Comments indicated that teachers should have access to high-quality, relevant, and appropriate teaching and learning resources and supports in the areas of instruction and implementation.



Wellness Education

Wellness-related curriculum includes K–12 Physical Education, K–9 Health and Life Skills, and high school Career and Life Management (CALM). Analysis of closed-ended and openended responses revealed the following:

- Responses indicated that a comprehensive school health approach to Physical Education (47% strongly agree, 39% agree), Health and Life Skills (38% strongly agree, 41% agree), and CALM (42% strongly agree, 31% agree) is appropriate in supporting student learning.
- Responses indicated a preference for all aspects of the current wellness-related programs to be retained or, in some cases (particularly for CALM), receive increased emphasis in future curriculum development.

Regarding Physical Education, responses indicated the following:

- It is important that students develop an appreciation for leading a healthy, active lifestyle.
- The importance of the concept of physical literacy, which is having the motivation, confidence, physical competence, knowledge, and understanding to value and take responsibility for engagement in physical activities in a variety of environments, should appear as a foundational element of physical education.
- The importance of a solid foundation of fundamental movement skills to increase student confidence and competence should receive emphasis.
- There is a need for Physical Education to be conducted in a safe and caring learning environment.
- There is value in offering a wide variety of physical activities during Physical Education.
- There is value in schools implementing daily physical education.

Key themes relating to K–9 Health and Life Skills and high school CALM include:

 There is a need to pay greater attention to increasing the social and emotional well-being of students, fostered by students' ability to understand and manage emotions, set and achieve positive goals, feel and show empathy for others, establish and maintain healthy relationships, and make responsible decisions. Strategies for relating and interacting with others and developing interpersonal skills and social awareness were also mentioned.

- Mental health concepts should be included or have an increased emphasis in future Wellness curriculum.
- Wellness education programs should continue to encourage students to establish and maintain healthy relationships, including the importance of all types of consent, as they are important in promoting rewarding and fulfilling lives.
- Respondents indicated that parental rights are important and should be considered when there is instruction about human sexuality. Feedback was mixed regarding human sexuality education. For example, some respondents indicated that teaching moral issues and values, such as human sexuality education, should be taught at home and is not the responsibility of schools. For K–9 Health and Life Skills, respondents indicated that age appropriateness is particularly important when teaching sensitive topics such as human sexuality education.
- Content in the current K–9 Health and Life Skills curriculum should be embedded across subject areas.
- In high school CALM, career development and financial education are important concepts, and should be embedded across subject areas.

Areas of Wellness curriculum where respondents would prefer increased emphasis include the following:

- Provide activities in an alternative environment in Physical Education (47% increase, 40% retain).
- Analyze factors that affect choices of physical activity for life, and create personal strategies to overcome barriers to lifelong activity in Grade 8 Physical Education (47% increase, 42% retain).
- Develop strategies to counteract influences that limit involvement in physical activity in Grade 9 Physical Education (45% increase, 44% retain).
- Refine a personal plan that is self-motivating and encourages ongoing participation (47% increase, 39% retain) and demonstrate an understanding of behaviour appropriate to positive active-living role modelling (45% increase, 41% retain) in Physical Education 20.
- Perform service, leadership, and volunteer work related to physical activity in the school and/or in the community (42% increase, 41% retain), and recommend future changes and modifications to a personal plan to maintain a healthy, active lifestyle (47% increase, 40% retain) in Physical Education 30.
- There is support for increasing emphasis on the general outcomes for K–9 Health and Life Skills, particularly developing effective interpersonal skills in order to establish and maintain healthy interactions.

- Develop, with guidance, effective communication skills and strategies to express feelings (50% increase, 42% retain) and describe the importance of decision-making and refusal skills when offered inappropriate substances (51% increase, 40% retain) in Grade 3 Health and Life Skills.
- Practise effective communication skills (59% increase, 36% retain) and explore respectful communication strategies that foster group or team development (49% increase, 43% retain) in Grade 5 Health and Life Skills.
- Evaluate the need for balance and variety in daily activities that promote personal health (equal proportions of 46% prefer to see this retained or increased) in Grade 6 Health and Life Skills.
- Examine the influences on personal decision making for responsible sexual behaviour (49% increase, 33% retain) and examine factors that may influence future life role/education/ career plans (51% increase, 38% retain) in Grade 7 Health and Life Skills.
- For each of the Grade 8 Health and Life Skills outcomes, approximately equal proportions preferred to retain (range of 42–45%) or increase emphasis (41–44%).

- Use decision-making skills to select appropriate risk-taking activities for personal growth and empowerment (49% increase, 39% retain) and develop strategies to deal with transitional experiences (47% increase, 38% retain) in Grade 9 Health and Life Skills.
- There is strong support for increasing emphasis on the general outcomes for CALM, particularly resource choices (73% increase, 19% retain), followed by career and life choices (64% increase, 26% retain) and personal choices (46% increase, 35% retain).
- Respondents are also generally supportive of increasing virtually all of the specific outcomes for CALM, with the proportion of "increase emphasis" responses being equal or more than "remain as is" responses for 17 of the 18 specific outcomes (a range of 41–71% prefer to increase emphasis on each), the exception being to analyze the dimensions of health and their interrelatedness, the impact of the determinants of health, and the dynamic nature of the balance in life (36% increase, 44% retain).



NEXT STEPS AND CONSIDERATIONS

The Fall 2016 Provincial K–12 Curriculum Survey was the first opportunity for Albertans to provide feedback on provincial curriculum content following the June 2016 announcement of curriculum development.

There will be additional opportunities for feedback as the draft curriculum evolves over the next six years. Through the survey, respondents articulated their broad support for directions for future curriculum. There was also strong support for much of the current curriculum content across subject areas, indicating that the current curriculum content provides a solid foundation upon which to build the future curriculum.

While the majority of respondents consistently supported maintaining existing curriculum content and in some cases adding content, many respondents also called for reducing the breadth of current curriculum content to allow students opportunities to develop greater depth in their studies.

Survey responses generally indicate a continuum of philosophical views on education. For example, some views focus on the basics (such as spelling, grammar, history, mental mathematics), favouring discipline-based academic subjects within time-tested content knowledge and vocational studies as well as common expectations for all students. Views expressed moreso towards the other end of the continuum tend to see content knowledge as being dynamic, fostering critical and reflective thought with student-centred learning that takes into consideration an individual child's development, background experiences, needs, and interests.

Consistent with The Guiding Framework for the Design and Development of Kindergarten to Grade 12 Provincial Curriculum (Programs of Study) 2016, the philosophical orientation of future curriculum will need to represent a balance or synthesis of philosophical views on education. That is to say, future curriculum content should be a blend of views, and not an "either/or" orientation. The curriculum being developed is the starting point for teachers to make appropriate decision about which approaches best meet the needs of students. This will allow students to develop deep understandings and skills built on a foundation of literacy and numeracy, and their applicability to living and working, while also having a firm grounding in subject-specific content knowledge and competencies for the 21st century such as cultural and global citizenship. This will better prepare students for their futures, and help students be successful on their own terms as they grow as individual learners in an ever-changing, global economy and society.

The Fall 2016 Curriculum Survey provided valuable feedback; however, it was not a referendum on curriculum content, only one of several inputs that will help inform future curriculum development. Feedback and ideas received from Albertans as well as the strengths of the current curriculum, reviews of research, other national and international education systems, and prior work with stakeholders will all help inform future curriculum development.

Curriculum Working Groups have started the development of future provincial curriculum in six subject areas: Language Arts (English, Français, French), Mathematics, Social Studies, Sciences, Arts, and Wellness Education. The Curriculum Working Groups are made up of ministry staff, K–12 teachers, post-secondary professors and instructors, inclusive education and early learning specialists, and educators who have in-depth knowledge and hands-on experience within subjects and across grades. Curriculum Working Group members were nominated by Alberta school authorities (public, separate, and charter/ private), First Nations Superintendents and Education Directors, the Alberta Teachers' Association (ATA), and post-secondary institutions; they provide a balanced representation of Alberta's geographic and demographic diversity.

Over the next six years, as this work unfolds, we will continue to gather input from stakeholders and partners, including teachers, students, parents, superintendents, trustees, post-secondary institutions, employers, industry and apprenticeship bodies, and the broader community. This is an integral part of the K–12 provincial curriculum development process.

Targeted Timelines for Provincial Curriculum Development

- Grades Kindergarten-4, December 2018
- Grades 5-8, December 2019
- Grades 9–10 (3 subject areas), December 2020
- Grades 9–10 (3 subject areas) + 11–12 (3 subject areas), December 2021
- Grades 11–12 (3 subject areas), December 2022

Timelines for implementation of future provincial curriculum, once development is complete, have yet to be determined. Current curriculum remains in effect.

