



**PARKLAND**  
SCHOOL DIVISION

## **Review of Alberta's Proposed Curriculum**

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## PURPOSE

The purpose of this *Parkland School Division – Review of Alberta’s Proposed Curriculum* [the Review] is to provide invested stakeholders and representatives from the Parkland School Division with information to support engagement in the current feedback process for the Draft K-6 Curriculum in Alberta.

The Review provides insights from curriculum theory on different models of curriculum development and what should be considered in the process of developing curriculum, specifically and most importantly:

- *What do we believe is the purpose of formal, public schooling in Alberta?*

This Review reflects on what current research has to say about how we learn and whether or not this research appears to have been considered in the development of this curriculum. This Review also examines the developmental stages in the various subject areas of the elementary-aged learner as it pertains to the content offered by the K-6 Draft Curriculum.

## BACKGROUND

In preface to the discussion regarding the topics outlined in the previous section, it is important to consider the timeline of the development of the Alberta K-6 Draft Curriculum. In August of 2020, Minister LaGrange provided a new *Ministerial Order on Student Learning* (Alberta, 2020b). The Ministerial Order sets out the “goals and standards applicable to the provision of education in Alberta”. The Ministerial Order also describes the Vision for Student Learning which states that “Students will gain the knowledge and skills to form the foundations for successful and fulfilling lives, and make meaningful contributions to their communities and the world”. We will return to this statement later in the analysis as it is a statement that requires much consideration of thought with respect to the challenges our students will face in the coming decades.

The Ministerial Order outlines the Foundations for Learning, of which literacy and numeracy are specifically identified. The Ministerial Order additionally outlines the Outcomes for Learning, which are then categorized into three areas: Knowledge Development, Character Development and Community Engagement.

In November of 2020—three months into the Ministerial Order—school authorities were invited to nominate teachers for the curriculum working group.

Within a month, in December of 2020, Alberta Education published the *Guiding Framework for Design and Development of K-12 Provincial Curriculum* (Alberta, 2020a). The *Guiding Framework* outlines the overall guidelines that were employed in the development of the curriculum. The guidelines include:

- Identifying the subject areas of the curriculum;
- The languages the curriculum was to be developed in;
- The inclusion of First Nation, Metis, and Inuit histories, contributions and perspectives;
- High academic standards;
- The belief that a balance was achieved between scientific rigour while respecting people’s beliefs;
- A focus on content not pedagogy; and
- The avoidance of specialized “jargon”.

The document proceeds to outline the Subject Specific Guidelines and then offers the considerations that were in play during the development of the Draft. These Considerations include multiple references to core knowledge that all students should have and justifies this core knowledge with the need for students to be able

to take pleasure and fully participate in daily conversations that may include expressions such as ‘Achilles heel’, references to Greek mythology and Shakespeare.

This section identifies cultural literacy, global competitiveness, and multiple references to the need to expose students to the “best” and “enduring” works of art and literature. The Considerations are clear that “the curriculum sets out the content of what students are to be taught; it does not dictate how to teach.” As will later be discussed, it is misguided to think that the kind of content that is chosen does not influence how the content is delivered. The Considerations make a nod to pluralism, inclusion, and varying cultural perspectives; however, this paper will argue that there is much that is missing from this Draft in order for any meaningful ground to be covered.

Finally, wedged in between the Considerations and the section on the Architecture and Design of the Curriculum, there is the statement that the curriculum must be “as free as possible from ideology.” This is perhaps the most revealing statement of all about the Draft. Any curriculum, regardless of the amount of time and consultation that goes into its development, will not be free from bias or ideology. Curriculum development will always involve decisions about what should be included and what should be left out. Those decisions will always reflect a bias and an ideology. The best we can do is to be as transparent as possible about what leads us to make our decisions. And one should also ask the question, should a curriculum be free from ideology? Do we not wish our children to be educated with an ideal in mind, and should we not be openly and publicly discussing what that ideal is? To do otherwise indicates that the designers of the curriculum are either unaware of their ideology and bias or they wish it to remain hidden from view.

In December, 2020, the selected nominees participated in a two-day Zoom meeting. The participants were required to sign a non-disclosure agreement that prevented them from sharing any of the discussion or feedback that was provided.

In March, 2021, three months later, the Draft K-6 Curriculum was released.

It is important to note here and keep in mind as the complexities of curriculum development are considered and the research is reviewed, that it took 8 months to develop the subject areas of English Language Arts and Literature, French First Language and Literature, French Immersion Language Arts, Mathematics, Science, Social Studies, Physical Education and Wellness, Visual Arts, Drama, Dance and Music - 11 subjects in 7 grade levels. It is worth considering how the depth and complexity of 77 programs of study could be respectfully and meaningfully developed in such a short time frame.

## METHODOLOGY AND PARTICIPATION

In September and October of 2021, Parkland School Division engaged stakeholders at both the School and Division level. In October of 2021, a survey was issued to all certificated staff, inviting them to respond to the K-6 Draft Curriculum with their perspectives on strengths, opportunities for improvement, recommendations on age appropriateness, and any other feedback they might have. As well, Parkland School Division subject area experts engaged in an in-depth analysis of their respective areas of expertise. Other reports were also reviewed; such as the *Professional Curriculum Analysis and Critique of Alberta Education’s 2021 Draft K-6 Curriculum* (Alberta Teachers’ Association, 2021) and Elk Island Catholic School Division’s *Professional Review of Alberta Education’s 2021 Draft K-6 Curriculum* (Aubry, 2021). The purpose of consulting other reports was to get a sense of what has already been addressed, to avoid redundancies, and to ensure that The Parkland School Division was offering a perspective that is uniquely its own.

## CURRICULUM THEORY

This section considers the K-6 Draft Curriculum through the lens of current curriculum theory in order to uncover its theoretical stance. There are three models through which we can consider the Draft K-6 Curriculum: knowledge-centered, learner-centered and society-centered (Ellis, 2004).

The **knowledge-centered** curriculum postulates that knowledge is an end in itself. Proponents of the knowledge-centered curriculum believe that knowledge makes us more rational, reflective, and less impulsive. In essence, it makes us better people. The knowledge-centered curriculum is informed by two philosophies: essentialism and perennialism. The cue for essentialist philosophy or theory are phrases like “core knowledge” and “back to basics”. It is a philosophy that is concerned with teaching and learning the things that are considered essential for a successful life. Its primary goal is to create productive citizens. Perennialism proposes the study of “great works” and “enduring ideas” as keys to successful living and looks to classical studies and religious thought for its subject matter. While these two schools of thought overlap in their subject matter (literature, mathematics, history, geography, sciences), they differ in that essentialists believe the subject matter will need to adapt to changing needs, while perennial thinkers argue the study of great works should not change with the times as they represent ideals that must be handed down throughout the ages. In a knowledge-centered curriculum, assessment typically takes the form of standardized tests.

The **learner-centered** approach is connected to Progressive theory which rejected the idea that the study of knowledge is an end in itself. In a learner-centered curriculum, the purpose of the school experience is to facilitate the discovery of self through the exploration of interests and talents. Learning of subject matter is incidental and occurs as a result of the learner’s experiences. The learner-centered approach places a priority on the emotional and relational development of the student, and provides opportunities to develop those relationships through centers, play-based and project-based learning. Assessment in a learner-centered approach is often through observation, formative feedback and self-reflection.

The **society-centered** approach is also connected to the Progressive school of thought, but rather, instead of self-exploration and discovery, this model proposes that the purpose of education is improvement of society and the solving of problems for social change. Social issues are considered to be the content. Education is clearly for the purpose of good citizenship, and is heavily involved in community partnerships and collaboration. In this model, the study of subject matter is integrated as it is designed out of the problem to be solved. In a society-centered curriculum, assessment measures the impact of the learning on societal change.

## MODELS OF CURRICULUM WITHIN THE K-6 DRAFT

As those who are familiar with the K-6 Draft Curriculum will recognize, there are elements of each of these models within the Draft. The following section will identify examples from the Draft that are representative of these models, although, it must be said at this point, there is a decided emphasis on the Knowledge-Centered model.

## KNOWLEDGE-CENTERED CURRICULUM IN THE K-6 DRAFT

The K-6 Draft is unapologetically a knowledge-centered curriculum. In the Guiding Framework for the Design and Development of the Kindergarten to Grade 12 Provincial Curriculum, the phrase “core knowledge” is used 13 times. There is reference to “core knowledge” about the treaties and residential schools, “core knowledge” that is foundational to cultural and civic literacy as well as critical thinking, that the acquisition of “core knowledge” will provide equity of opportunity for students, and that “core knowledge” is necessary to acquire deep understanding. The idea of developing depth of understanding through knowledge (along with skills and procedures), and whether or not this is present in the K-6 Draft, will be explored later.

It is interesting to note that both Essentialist and Perennialist theory have made their way into this draft. While Essentialist theory is currently heard in the call for “back to basics” as an ideological reaction to the perception of too much freedom and choice for students in the Progressive school of thought, Perennialism is often considered to be elitist and outdated with its focus on classical and religious studies in the public school system.

## PERENNIALISM

There are strong elements of Perennialist Theory in the reference to “great works” in the *Ministerial Order on Student Learning*, as well as varying references to “great art”, “great works of literature”, “greatest and most influential writers”, “greatest enduring works”, etc.

In the subject English Language Arts and Literature, there are multiple references to “great orators” and “great speeches”.

In the grade 2 Social Studies curriculum, there is reference to “great thinkers”.

There is a significant focus on “great artworks” in the Fine Arts Organizing Idea about Appreciation and recognizing beauty, goodness and truth in the visual arts, music, dance and drama.

With such a recurring theme of examining greatness, one is left to speculate about the criteria necessary for considering a thinker, writer, or artist to be great. It is readily apparent that significant consideration was given to the classical studies and the study of Ancient civilizations such as Rome, Greece, China, Mesopotamia, and Egypt. In Grades 1 & 2, the study of ancient civilizations threads through three organizing ideas in the Social Studies curriculum: History, Geography and Civics.

The idea that the Draft seems to put forward is that we are better able to understand our common heritage, how we came to be in Canada, and our current system of government through the study of ancient civilizations. The developmental appropriateness of these outcomes for primary-aged children will be explored later.

See below for some specific examples of Perennialist thought in this curriculum.

Table 1

<b>History:</b> Understanding the history of our province, nation, and world and developing cultural literacy allow us to appreciate the varied richness of our shared human inheritance of original writings, artifacts, stories, beliefs, ideas and <i>great cultural and artistic achievements</i> from different times and places. <i>Lessons of the past</i> and knowledge of diverse experiences help us overcome ignorance and prejudice and recognize our common humanity and dignity.	
Grade 1	Students identify important ideas, social structures, cultural practices, and monumental legacies that <i>ancient civilizations</i> have contributed to modern day.
Grade 2	Students explore <i>ancient civilizations and the ideas that have endured</i> over time and have contributed to our heritage and traditions. What aspects of past civilizations continue to influence the way we live?
	Students analyze some major contributions of ancient Western and Eastern civilizations to life and society today.
<b>Civics:</b> Canada's constitutional monarchy, democracy, rule of law, and citizenship are understood through knowledge of the origins and development of various contrasting political traditions and ideas.	
Grade 1	Students identify structures and governance of <i>early civilizations</i> .
Grade 2	Students understand the history of hereditary rulership (monarchy) and the <i>origins</i> of modern forms of democracy.
<b>Geography:</b> Understanding the world we live in, and the relationship of people and places, is supported by knowing features of the natural and political world, such as oceans, mountain ranges, and boundaries.	
Grade 1	Students explain reasons for migration and settlement of <i>ancient civilizations</i> .
Grade 2	Students describe ways that ideas, beliefs, religion, and cultural practices spread back and forth between the Middle East, Africa, Europe, and Asia, and eventually to other places around the world.

In the English Language Arts and Literature program of study, we see the appearance of ancient civilization in the study of the great orators (eg. Aristotle, Cicero) within the Organizing Idea of Oral Language. In the Organizing Idea of studying Text Forms and Structure, we see reference to the study of Ancient Greek epic poems. Alongside the study of Ancient Greek and Roman works, we also see the inclusion of Shakespearean texts from the Renaissance age for the study of dramatic texts. These outcomes are placed at the Grades 5 and 6 levels.

Within the bundle of Fine Arts programs of study (Dance, Drama, Music and Visual Arts), the thread of Guiding Questions under the Organizing Idea of Appreciation are as follows:

- Grade 1: "What function did music/drama/dance/visual arts serve in ancient China, ancient Egypt, and prehistoric times?"
- Grade 2: "How might cultures from the past and present contribute to an appreciation of music/drama/dance/visual arts?"
- Grade 3: "How can an understanding of culture contribute to learning about music/drama/dance/visual arts in ancient Rome and New France?"

- Grade 4: “What is the role of culture in shaping the music/drama/dance/visual arts from medieval Europe, medieval Islam, and Alberta?”
- Grade 5: “How was societal change reflected in music/drama/dance/visual arts during Colonial Canada, the Renaissance and the Protestant Reformation?”
- Grade 6: “How did societal change influence how music/drama/dance/visual arts were appreciated during the Enlightenment, French Revolution, and throughout the history of the United States of America?”

Very much within the Perennialist tradition, appreciation of the Fine Arts within these programs appears to have little to do with finding personal meaning and enjoyment through art, and much more to do with analyzing historical, cultural and geographical influences. The focus is on an objective, rather than a subjective appreciation of the Fine Arts, a concern that will be returned to later in the review.

Lastly, the inclusion of mandatory religious studies in the Draft curriculum is further evidence of the encroachment of the Perennialist tradition. Religious studies begin in Grade 2 within the History strand under the outcomes that have already been identified and appear again in Grade 6 under the outcome, “Students investigate Alberta’s and Canada’s ethnic and religious diversity.”

## ESSENTIALISM

As previously mentioned, both Essentialist and Perennialist schools agree that the pursuit of knowledge is the purpose of school. However, where they differ is the body of knowledge that is considered valuable.

Essentialists believe that the core knowledge, while it should be determined by adult experts and not students who are exploring their personal interests, should be responsive to the needs of society. In the Draft K-6 Curriculum we see evidence of Essentialist thought in the multiple references to core knowledge, to the emphasis placed on literacy and numeracy, and in the emergence of areas of study such as Computer Science in Science. We also see this in the more standardized and categorical thinking that has gone into the structure of the Organizing Ideas as there is a decided movement away from growing the outcomes out of the learner interests and the affective domain. See below for a comparison of the General Learner Outcomes in the current curriculum with the Organizing Ideas of the Draft.

Table 2

Social Studies (Current)	Social Studies (Draft)
Kindergarten: Being Together	History
Grade 1: Citizenship: Belonging and Connecting	Geography
Grade 2: Communities in Canada	Civics and Citizenship
Grade 3: Connecting with the World	Economics
Grade 4: Alberta: The Land, Histories and Stories	Government and Political Systems
Grade 5: Canada: The Land, Histories and Stories	
Grade 6: Democracy: Action and Participation	



Table 2 (Continued)

English Language Arts (Current)	English Language Arts and Literature (Draft)
<p>General Outcome 1: Students will listen, speak, read, write, view and represent to explore thoughts, ideas, feelings and experiences.</p> <p>General Outcome 2: Students will listen, speak, read, write, view and represent to comprehend and respond personally and critically to oral, print and other media texts.</p> <p>General Outcome 3: Students will listen, speak, read, write, view and represent to manage ideas and information.</p> <p>General Outcome 4: Students will listen, speak, read, write, view and represent to enhance the clarity and artistry of communication.</p> <p>General Outcome 5: Students will listen, speak, read, write, view and represent to respect, support and collaborate with others.</p>	<p>Text Forms and Structure</p> <p>Oral Language</p> <p>Vocabulary</p> <p>Phonological Awareness</p> <p>Phonics</p> <p>Fluency</p> <p>Comprehension</p> <p>Writing</p> <p>Conventions</p>
Mathematics (Current)	Mathematics (Draft)
<p>Number</p> <p>Patterns and Relations</p> <p>Shape and Space</p> <p>Statistics and Probability (Gr 2+)</p>	<p>Number</p> <p>Geometry</p> <p>Measurement</p> <p>Patterns</p> <p>Time (K-4)</p> <p>Statistics (Gr 1+)</p> <p>Algebra (Gr 3+)</p> <p>Coordinate Geometry (Gr 5&amp;6)</p>
Science (Current)	Science (Draft)
<p>Grade 1:</p> <ul style="list-style-type: none"> <li>A. Creating Colour</li> <li>B. Seasonal Changes</li> <li>C. Building Things</li> <li>D. Senses</li> <li>E. Needs of Animals and Plants</li> </ul> <p>Grade 2:</p> <ul style="list-style-type: none"> <li>A. Exploring Liquids</li> <li>B. Buoyancy and Boats</li> <li>C. Magnetism</li> <li>D. Hot and Cold Temperature</li> <li>E. Small Crawling and Flying Animals</li> </ul>	<p>Matter</p> <p>Energy</p> <p>Earth Systems</p> <p>Living Systems (Gr 1+)</p> <p>Computer Science</p> <p>Scientific Methods (Gr 1+)</p> <p>Space (Gr 4+)</p>

Table 2 (Continued)

<p>Grade 3:</p> <ul style="list-style-type: none"> <li>A. Rocks and Minerals</li> <li>B. Building with a Variety of Materials</li> <li>C. Testing Materials and Designs</li> <li>D. Hearing and Sound</li> <li>E. Animal Life Cycles</li> </ul> <p>Grade 4:</p> <ul style="list-style-type: none"> <li>A. Waste and Our World</li> <li>B. Wheels and Levers</li> <li>C. Building Devices and Vehicles that Move</li> <li>D. Light and Shadows</li> <li>E. Plant Growth and Changes</li> </ul> <p>Grade 5:</p> <ul style="list-style-type: none"> <li>A. Electricity and Magnetism</li> <li>B. Mechanisms Using Electricity</li> <li>C. Classroom Chemistry</li> <li>D. Weather Watch</li> <li>E. Wetland Ecosystems</li> </ul>	
<p>Grade 6:</p> <ul style="list-style-type: none"> <li>A. Air and Aerodynamics</li> <li>B. Flight</li> <li>C. Sky Science</li> <li>D. Evidence and Investigation</li> <li>E. Trees and Forests</li> </ul>	
<b>French Language Arts (Current)</b>	<b>French Immersion Language Arts (Draft)</b>
<p>Valuing the Learning of the French Language</p> <p>Oral Comprehension</p> <p>Oral Production</p> <p>Written Comprehension</p> <p>Written Production</p>	<p>Oral Communication</p> <p>Vocabulary</p> <p>Phonological Awareness (K-2)</p> <p>Phonography (K-4)</p> <p>Text Organization</p> <p>Reading Comprehension</p> <p>Reading Fluency</p> <p>Writing</p> <p>Grammar</p>

Table 2 (Continued)

Physical Education (Current)	Physical Education and Wellness (Draft)
Active Benefits Health Cooperation Do it Daily	Active Living Movement Skill Development Character Development Safety
Health (Current)	Healthy Eating
Wellness Choices Relationship Choices Life Learning Choices	Healthy Relationships Growth and Development Financial Literacy
Art	Fine Arts
Reflection Depiction Composition Expressions	Foundational Elements Creating and Presenting Appreciation
Music	
Enjoyment of Music Awareness and Appreciation Insights into Music Self-Expression and Creativity Musical Skills and Knowledge	
Drama	
Knowledge of Self and Others Competency in Communication Skills Appreciation	

## HOW DO WE COME TO KNOW?

Should one agree that acquiring knowledge is the primary purpose of schooling, and that expert adults should be the ones to determine what is to be learned, there is still much to be considered in what it means to come to know something. The curriculum ought to be designed with these considerations in mind. Here, it becomes apparent that one cannot separate pedagogy from content.

In the year 2000, the National Research Council released a compendium of research that examined this very question. It was entitled *How People Learn: Brain, Mind, Experience, and School*. Here is an excerpt from this text that speaks to this important issue of how we come to know something:

*The new science of learning does not deny that facts are important for thinking and problem solving....However, the research also shows clearly that 'usable knowledge' is not the same as a mere list of disconnected facts (p. 9).*

By researching how experts in their various fields use and organize knowledge, it became clear that knowledge is organized around core concepts and big ideas.

Knowing more means having more conceptual chunks in memory and more connections amongst those chunks so that the learner becomes capable of transferring that learning to non-routine or unfamiliar scenarios. The research goes on to state that covering too many topics, too quickly prevents students from acquiring those conceptual chunks and making those important connections. (Bransford et al, 2000)

The underlying assumption here that cannot be emphasized enough, is that the purpose of acquiring knowledge is not just to have a common cultural literacy that causes us to see things in the same way, but also to be able to go outside of what we commonly recognize and believe to be true. In other words, the purpose of acquiring knowledge is to learn how to think independently – process is as important as product.

## CONCEPTUAL FRAMEWORK WITHIN THE DRAFT

On the surface, the K-6 Draft appears to have been designed with a conceptual understanding framework in mind. In each of the programs of study, we see the overarching **Organizing Ideas**. These would be the main conceptual chunks that provide the purpose and the skeleton for learning.

We then see **Guiding Questions** at each of the grade levels that are intended to show the progression of understanding and imply an inquiry-based approach, where students are to grapple with important questions as they move through their studies.

We next have a **Learning Outcome**, which seems less clear as to how it fits within a Concept-Based Curriculum design. At times it seems to be a goal for the learning, but at others it is more of a description of the activity in which the student is to be engaged. Within each Guiding Question and connected Learning Outcome, we have the triad of Knowledge, Understanding, and Skills & Procedures, which again, appears to be a structure from the Concept-Based Curriculum approach. Through inquiry and interplay of the acquisition of knowledge and skills, the student builds the understanding that is generalizable and transferable.

To illustrate these ideas, analyses of representative examples have been provided below.

Table 3A

Grade 1 Mathematics	
Organizing Idea	Number: Quantity is measured with numbers that enable counting, labelling, comparing and operation.
Guiding Question	In what ways can we interpret the composition of number?
Learning Outcome	Students represent equal sharing and grouping of quantities within 20.
Knowledge	Sharing involves partitioning a quantity into a certain number of groups. Grouping involves partitioning a quantity into groups of a certain size.
Understanding	Quantity can be partitioned by sharing or grouping.
Skills & Procedures	Partition a set of objects by sharing and grouping. Demonstrate conservation of number when sharing or grouping.

Table 3A (Continued)

Analysis	<p>The guiding question here is vague and requires clarity to provide context for what the students will be investigating.</p> <p>In the Learning Outcome, and the Knowledge, Understanding, Skills &amp; Procedures, it becomes clearer that the investigation is about what it means to divide and the two models we can use to think about division: sharing or grouping.</p> <p>The Knowledge section makes it clear that the students are to learn about the difference between sharing and grouping; however, the Skills &amp; Procedures should make it clear that the students are to perform this operation not only with manipulatives, but also be able to recognize these operations within a problem-solving context.</p> <p>This purpose for learning within a problem-solving context about the two models for division should also be included in the Understanding section as this is the piece that would be considered transferable. Conservation of number should be clearly explained in the Knowledge section.</p>
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Table 3B

Grade 2 Social Studies	
Organizing Idea	Geography: Understanding the world we live in, and the relationship of people and places, is supported by knowing features of the natural and political world, such as oceans, mountain ranges, and boundaries.
Guiding Question	Where did the earliest civilizations of the Middle East, Europe, and Asia originate?
Learning Outcome	Students describe ways that ideas, beliefs, religion and cultural practices spread back and forth between the Middle East, Africa, Europe, and Asia, and eventually to other places around the world.
Knowledge	<ul style="list-style-type: none"> <li>geographic location and extent of ancient Greece, ancient Rome, Islam, and medieval Europe</li> <li>Judaism, Christianity, and Islam originated in the Middle East and North Africa, and spread from there into Asia, Europe, and eventually the world to become world religions.</li> <li>Continents, oceans and seas, equator, hemispheres, poles, coasts, valleys, grasslands, desert, oasis</li> </ul>
Understanding	<ul style="list-style-type: none"> <li>spatial relationships among places in the ancient world and in medieval Europe</li> </ul>
Skills & Procedures	<ul style="list-style-type: none"> <li>Draw a map of ancient Greece (Athens, Sparta, Mediterranean Sea, Aegean Sea, Ionian Sea).</li> <li>Trace the expansion of Islam, beginning in 622 AD</li> <li>Identify and explain landform features in areas under study</li> </ul>

Table 3B (Continued)

Analysis	<p>While the Organizing Idea leads us to believe that this outcome is about understanding how the identity of a people is influenced by their geographical location, and the notion that we can better understand each other if we learn about where we come from, it is quite clear from the remaining sections that this is an outcome focused on the memorization of facts and procedures.</p> <p>A good indicator of this is to look at the possible answers to the Guiding Question. This is not an open-ended question that would provoke any order of grappling with an idea. It simply involves learning to look up information in a source.</p> <p>The learning outcome requires students to describe the ways that cultural identities are shared. For consideration, this is a lower order thinking skill that asks students to explain what happened as opposed to why this happens and the impact it has had on our global identity. The Knowledge, Skills &amp; Procedures, and Understanding make it clear that this learning is about acquiring facts and skills without any contextualization of purpose that is implied in the organizing idea. There is no “understanding” or bigger idea that can be transferred here.</p>
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Table 3C

Grade 4 Science	
Organizing Idea	Earth Systems: Understandings of the living world, Earth, and space are deepened through investigating natural systems and their interactions.
Guiding Question	How does Earth sustain life?
Learning Outcome	Students investigate the systems of Earth and reflect on how interconnections sustain life.
Knowledge	<ul style="list-style-type: none"> <li>Water is a basic need for plants and animals and provides habitat for many organisms.</li> <li>For many First Nations, Métis, and Inuit, water is sacred, as it sustains life.</li> </ul>
Understanding	<ul style="list-style-type: none"> <li>Most organisms on Earth require water to meet their needs.</li> <li>First Nations, Métis, and Inuit hold a sense of responsibility to protect water and sources of water.</li> </ul>
Skills & Procedures	<ul style="list-style-type: none"> <li>Discuss ways that plants and animals use water to meet their basic needs.</li> <li>Research plants and animals that exist in various bodies of water.</li> <li>Discuss the importance of water to First Nations, Métis, and Inuit and how it sustains life.</li> </ul>

Analysis	<p>There is a disconnect between the importance of the earth's ecosystems to all living beings and the appreciation of that importance as being held solely by First Nations, Métis, and Inuit people.</p> <p>There seems to be little in the way of differentiating between Knowledge and Understanding. The Knowledge statement that "water is a basic need for plants and animals" and the Understanding statement that "most organisms on Earth require water to meet their needs", are virtually identical. Understandings are meant to be conceptual, abstract and transferable in nature, rather than a rewording of facts. With respect to the Skills and Procedures, these are examples of tasks that students would complete, rather than transferable skills they would develop. An example of a skill in this context would be to "explore different perspectives through discussion" or "find and categorize information on a given topic".</p>
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These are just a few examples of the problematic way in which the architecture of the K-6 Draft has been approached. It is consistently inconsistent in its interpretation of a concept-based curriculum, and therefore seems to be more performative rather than meaningfully conceptual in nature.

That this is a curriculum less concerned with ensuring students are learning for understanding is present in other examples beyond the inconsistencies in the architecture. For example, the repeated emphasis on the "standard algorithm" in the Mathematics Program of Study is clearly a reaction against "new math" or "discovery-based" learning in mathematics and its perceived positionality within the learner-centered curriculum model. Within this perception there is the notion that students are given too much freedom to choose or invent their strategies and that instead, direct instruction of a standard procedure is less confusing and more effective.

Students must have both conceptual and procedural knowledge to be effective learners in Math. It is not enough to be able to recite numbers without having internalized the principle of cardinality. It is limiting to be able to perform a standard algorithm of multidigit operations without developing an understanding of how digits receive their value from their position in the number, and the 10:1 relationship between the places in the base ten system.

Students need to eventually come to a method that is efficient and reliable with all types of numbers, which is why we then refer to the standard algorithm, but we must come to this through an exploration of what the numbers mean and what the operations look like through concrete and pictorial means. The absence of explicit instruction through concrete and pictorial representations will have serious and detrimental implications for learners in Mathematics as we already see that when students acquire rules without understanding, they eventually get to a stage in their learning where they cannot keep track of all the rules. They are disconnected pieces of information.

It also should be noted here that there are many different algorithms that are used around the world, and it is the types of numbers that really determine which strategy should be used. For example, the question 1005 - 998 would be better answered with a mental math strategy such as thinking about the difference between the two numbers on a number line, rather than the standard algorithm which would afford many more opportunities for error with the amount of decomposition that would need to occur. Fluency in mathematics is not about knowing one standard method. It is about being comfortable with many strategies, and being able to assess which one makes best sense for any given situation.

The absence of “front matter” material is also a pervasive concern as this is where the curriculum has the opportunity to communicate the vision, rationale and thinking skills that are necessary for students to learn with understanding. We have already identified the importance of the need for students to visualize mathematics, along with solving problems, and verbalizing thinking processes.

In Social Studies, students need to learn not only the geographical and historical facts, but also the complexities of geographical and historical thinking. Students must be given instruction and modelling on how to think about their relationship with place and the land, and to be able to critically evaluate the telling of history by asking questions about the facts and the voices that are included or not.

In Science, students must learn not only scientific facts and principles, but as importantly, if not more so, how do we come to determine what is factual evidence through scientific inquiry. While one might argue that these thinking skills are addressed in the Competencies, without contextualization within each subject area, they lose their power to guide teachers in their instruction.

Finally, it cannot be ignored that the significant increase in the number of outcomes in the K-6 Draft will have a negative impact on the capacity to teach for understanding. The K-6 Draft has double the number of outcomes than what is currently in place and teachers already struggle to manage the amount of content they are required to teach. The sheer amount of content will drive practice in the direction of curriculum coverage and will facilitate, at best, only surface level attention to the subject matter. Assessment practices will shift away from the time-intensive formative feedback, which is a high impact strategy towards summative assessment of those things that can be more easily measured. In turn, this will privilege those students who have the capacity to memorize facts and procedures, and who may intuitively see the connections to build their understanding (if they are even asked to show their understanding). This leaves the learning as much to chance as the critics of a learner-centered curriculum would fear.

While proponents of a knowledge-centered curriculum might put their faith in the intention to provide equal opportunity to learn a standardized body of knowledge, in the end, given all the ways that students come to knowledge - their backgrounds and experiences, their range of interests, skills and talents - the impact will be that this is not a curriculum for all students and is, therefore, not inclusive. This is a curriculum designed to select for a very particular skill set and attitude toward learning, rather than to develop the uniqueness and strengths of each individual.

## REACTION AGAINST THE LEARNER-CENTERED CURRICULUM

In this section, the K-6 Draft is reviewed through the lens of a learner-centered curriculum. The learner-centered curriculum prioritizes the affective domain over subject matter and provides the student with the opportunity to learn and develop their own interests and talents.

With respect to Table 2, we see that there have been a number of areas where a more learner-centered approach has been removed or minimized.

In the current English Language Arts curriculum, General Outcome 1 states that “Students will listen, speak, read, write, view and represent to explore thoughts, ideas, feelings and experiences.” As we turn to the English Language Arts and Literature in the K-6 Draft, we see that there are moments where students are encouraged to express thoughts and feelings within the context of learning to write creatively, through effective oral communication or through the reading of text. Certainly, the element of personal connection to a message is present in the Draft, but it occupies more of a sprinkling throughout, as opposed to the current Program’s stance



of recognizing the emotional connection as a primary motivator for engaging with text. While the recent updates to the Draft on Dec 13, 2021 indicate that there will be additions concerning creativity and critical thinking, these changes appear minor in nature and do little to center the program more significantly around the learner.

We also see this in the relative diminution of the status of Comprehension with respect to the rest of Organizing Ideas. In the Draft, Comprehension is one of 9 Organizing Ideas, whereas in the current Program, Comprehension is one of 5 General Outcomes. There is strong research-based support for adopting a more structured approach to literacy; however, it is still important to keep front of mind the primary purposes for engaging with text. We read and write to learn about ourselves and others, to be entertained, and to seek or share information that is important to us.

In the French Language Arts Curriculum, the Draft has adopted a similar structured literacy approach as the English Language Arts. The greatest concern with respect to a learner-centered lens is the removal of the Outcome “*Valorisation de l’Apprentissage du Français*”, which means the Valuing of the Learning of French. It occupies a place at the center of the learning in French Immersion in the current curriculum as learning a second language in an Immersion environment has implications for personal, intellectual and social development.

As the student is learning to function and navigate within the immersion environment, there are certain attitudes and dispositions the learner must adopt to be successful. There is an element of risk-taking required to develop the confidence to communicate in a second language, as well as a willingness to problem solve when meaning is not apparent. French Immersion teachers work very hard to create a safe space where students develop the confidence to use and play with the language. While risk taking is mentioned a number of times in the K-6 Draft, it seems to again have taken a back seat to a more codified approach to the language. A detailed analysis of this is available in the section of this Review, on the developmental appropriateness of the curriculum.

The devaluation of play and inventiveness in learning becomes further apparent in the design of the Mathematics and Science curricula. This Review references the all-too-quick movement towards the teaching of the standard algorithm without properly developing the conceptual understandings through interaction with concrete manipulatives, pictorial representations and problem-solving situations. It is within these contexts that students feel comfortable using what they already know, taking risks and playing with ideas so that teachers can scaffold their learning towards a more symbolic representation.

In the current Science Program, there is evidence of an attempt to spark the interest and engagement of the elementary learner with topics that would appeal to their curiosity. Topics such as “Boats and Buoyancy”, “Small Crawling Things and Flying Animals”, and “Wheels and Levers” seem to lend themselves much more towards a project-based inquiry approach when compared to the Draft’s Organizing Ideas of “Matter” and “Energy”. The Draft is preoccupied with standardizing the content throughout the grade levels.

In the Social Studies curriculum, we see a different kind of shift away from the centering of the learner. In the current Program, the student first receives instruction and engages in experiences that help them to understand the concept of identity as this can be a challenging thing for an early learner to understand. To think about the self and what contributes to the making of a self is an abstract concept.

In Kindergarten, the two topics are “I Belong” and “I Am Unique”. In Grade 1, this broadens out to the notion of community within the contexts of Home, School and Community, and also applies historical thinking to the examination of the past and how their communities came to be. The progression continues to communities in

Canada, Alberta, and the World, and then takes the form of examination of the role of the community member as a democratic citizen in Grade 6.

The K-6 Draft takes a chronological approach to the progression of learning. It does not organize the ideas from the learner outward, and the Organizing Ideas are more focused around the discrete areas of study: history, geography, civics and citizenship, government and political systems. While the study of ancient civilizations has been relocated to grade 5 in the recent release of a draft blueprint, we still see a strong focus on themes and time periods that are very distant and abstract for the young learner. This approach will be examined further in the section that relates the content to the developmental stage of the learner. Suffice it to say at this point that the Social Studies Program of Study is a decidedly less learner-centered curriculum in the K-6 Draft.

It has been well-established that participating in the creative process of the fine arts has positive effects on both mental and physical well-being (Stuckey, H. L., & Nobel, J., 2010). This was the experience of many who turned to creative expression to help themselves manage during the difficult days of the pandemic. However, even within the domain of the Fine Arts, the K-6 Draft has a largely knowledge-centered focus. Two of the three Organizing Ideas are focused on the acquisition of knowledge: The Foundational Elements is the study of theoretical knowledge and Appreciation is largely the study of culture and history through artistic mediums. It is only in Creating and Presenting are students allowed to directly engage with art, exercise their imagination, and find an outlet for expression of their creative selves.

Lastly, the decentering of the affective nature of the learner also seems to be a factor in the Physical Education and Wellness curriculum. Instead of fostering a healthy relationship with food and physical activity, this program is more concerned with safety, the rules of fair play, and controlling one's body. The [HeretoHelp](#) website, which is authored by the Canadian Mental Health Association, BC Division, has this, among many other things, to say about having a healthy body image:

- Eat well-balanced meals and exercise because it makes you feel good and strong, not as a way to control your body.
- Notice when you judge yourself or others based on weight, shape, or size.

Contrary to this advice, the K-6 Draft seems to locate the source of motivation and enjoyment of physical health in making value judgements about food, setting goals and measuring progress towards those goals. This might make sense for the competitive elite athlete, but for the purposes of engaging in daily healthy habits, the focus on measuring calories, nutrition and physical activity can be counterproductive and demotivating (Veenstra EM, de Jong PJ., 2010). The Institute for Health Metrics and Evaluation (IHME) has tracked data in Canada that indicates the prevalence of overweight children aged 2-4 years has increased from 16.9% in 1990 to 26.4% in 2017. The Canadian Health Behaviour in School-aged Children: Trends Report 1990-2010, in its list of Summary Observations, noted that mental health remains at the forefront of Canadian public health efforts:

*The prevalence of reported well-being for Canadian young people in the HBSC survey has been decreasing since the beginning of the survey cycles with other indices of mental health remaining relatively stable.*

*For example, congruent with the results with respect to life satisfaction on the national level, the life satisfaction of Canadian adolescents reported in the HBSC survey has been worsening relative to their peers in other countries...The worsening international comparison is especially evident for girls, who dropped from the third to the bottom [fourth] quartile for ages 11 and 13 between 2006 and 2010, and from the top to the third quartile for age 15.*

One has to wonder about an approach that reinforces unhealthy body image practices in a nation that is grappling with indicators of increasing mental health issues such as decreasing life satisfaction amongst Canadian adolescents and increasing childhood obesity.

The Ministerial Order on Learning states that students will take “responsibility for their personal health and well-being.” A statement such as this implies that good health is simply a matter of willpower and control. While individuals ultimately have to make good choices for themselves, this perspective is an oversimplification of an extremely complex picture. It disregards the daily social messaging we all experience, to which young people are particularly vulnerable, that communicates images of often unattainable ideals and contributes to the profitability of industries that promise to fill that void. Learning how to recognize that messaging and the impact it is having on one’s physical and mental health seems like it should be as much a part of the programming as measurement of physical health and attainment of goals.

Social media is mentioned three times in the curriculum. It is in Grade 6 within the context of digital safety and explicit images. Body image is mentioned twice. Contrarily, the word “goal” appears thirty-three times. The recent Dec 13, 2021 updates indicate that there will be greater emphasis on body positivity. However, without a systematic examination of how we have come to hold a preference for thin bodies and a deeper examination of our relationship with exercise and food, the reference to body positivity becomes another socially acceptable box that has been checked.

It is apparent, given the restructuring of the Programs of Study and the change in nature of the topics, that there has been a significant ideological shift away from Progressivism and a balanced consideration of the whole child in the development of the K-6 Draft Curriculum.

## SOCIETY-CENTERED CURRICULUM

This section examines the intent and the realization of the K-6 Draft to prepare students to deal with social issues and become agents for change.

In the Ministerial Order on Learning, there are two sections that would seem to place a degree of importance on a society-centered model: Character Development and Community Engagement. Within the section on Character Development there is the statement, “Students will demonstrate a commitment to the common good by exercising compassion, empathy, and support for each other in our diverse society.” Under Community Engagement there are phrases such as “identify connections that transcend difference”, “civic participation”, “environmental stewardship and sustainability”, and “treaty rights and the importance of reconciliation”. In the Guiding Framework, there is a section on Pluralism, which advocates for the respect of the diversity of Canadian citizens and commitment to the common good. There is a section on Inclusion, which comments on the need for a quality education for all to prepare a nation’s citizens to participate fully in the democratic system. The Guiding Framework recognizes the importance of First Nations, Métis, and Inuit Experiences and Perspectives, with the promise that students “from these communities will see themselves within Alberta’s provincial curriculum” as well as the assertion that the education system will be “rebalanced” through the study of the residential schools, local Indigenous knowledge, wisdom, and oral traditions. The Draft Social Studies curriculum includes Civics as one of its major Organizing Ideas.

For the purposes of this Review, we consider the degree to which the Draft addresses society-centered needs through an examination of how it treats Social Equity as it pertains to Indigenous Peoples and also the Climate

Crisis. These two issues have been selected as they are interconnected and represent issues that occupy the current societal context.

## SOCIAL EQUITY

This year, the Federal Government of Canada proclaimed a statutory holiday on September 30 as the National Day for Truth and Reconciliation. It is a day that is intended to honour the lost children and survivors of residential schools and is a response to #80 in the 94 Calls to Action established by the Truth and Reconciliation Commission of Canada. While this is an important step forward on the path to Truth and Reconciliation, evidence indicates that there is still much work to be done.

On a National level, the publication [Aboriginal Statistics at a Glance](#), released by Statistic Canada in 2015, indicates that there are many areas of inequity that Indigenous Peoples experience in Canada. Indigenous Peoples experience a lower rate of employment, receive a lower rate of income, report a lower quality of health, experience greater food insecurity, and are overrepresented in admissions to sentenced custody. While Indigenous adults represent 3% of the overall population, they represent 26% of admissions to correctional services. The rate increases to 38% among Indigenous Women and this percentage is on the rise. In the Spring 2021 Alberta Education Assurance Measures, the following comparisons can be made between the provincial FNMI and Overall report.

Table 4

Measure	FNMI	Overall
High School Completion Rate (3 Year)	62%	83.4%
Diploma Exam (Acceptable)	77%	83.6%
Diploma Exam (Excellent)	11%	24.1%
Provincial Achievement Test (Acceptable)	52.9%	73.7%
Provincial Achievement Test (Excellent)	7%	20.3%
4+ Diploma Exam Participation Rate	24.4%	56.6%

Clearly, there is much to be done. This speaks to the need to equip our students, Indigenous and Non-Indigenous alike, to have the knowledge and the skills to be able to recognize systemic bias and to act as agents of change in bringing about a more egalitarian nation. However, looking at how we measure success through the lens of *Critical Race Theory*, we also have to be aware that this is prejudiced and flawed, and operates from a deficit mindset. Yosso (2005) advocates for the recognition of the “community cultural wealth” of racialized groups. For example, she states that racialized persons have “Aspirational” capital as they dream for a better life, despite the structural barriers. They have “Linguistic” capital in the richness of storytelling traditions and multilingual environments. They have “Resistance” capital in their commitment to fight for equality. They have “Familial” and “Social” Capital in their community and family connections, and they have “Navigational” capital in their ability to navigate colonial spaces.

Educators and the people who write curriculum, need to reconsider how we might better honour and respect these qualities in the measure of a child. Standardized testing does little to capture this cultural capital.

As has been previously mentioned, the *Guiding Framework* makes it explicit that the Draft was designed with the perspectives of First Nation, Inuit and Métis students in mind, along with a commitment to the common good in its recognition of Canada as a pluralistic society. Upon examination of the Social Studies curriculum, it is asserted here that this is a performative gesture as the content lacks any opportunity for students to meaningfully grow their skills and grapple with these issues. Indigenous peoples are frequently mentioned - but it is primarily through historical study and objectification by the colonial gaze, rather than through a more vibrant and modern representation. Rarely are Indigenous peoples given their own voice and space to tell their story in this curriculum. The skills and procedures that go along with the historical content are largely lower order skills in nature, as the memorization of facts, a preoccupation with this curriculum, tends to best operate at this level. Students are asked to explain, describe, recognize, identify, and research specific and prescriptive tasks. There is some comparison of similarities and differences, but no outcomes that are related to higher order thinking such as synthesis or evaluation. There are moments when students are to “ask questions” about certain issues, but the questions are specifically prescribed in this curriculum, rather than guiding students through a process of determining for themselves the important questions to be asked.

The Organizing Idea around Civics is more of the same. Students learn about hereditary rule, the French colonial government, the British monarchy, and the Iroquois confederacy. There is little to engage students in the level of critical thinking that it takes to become active citizens within a democratic society. They learn nothing about the Multicultural Act or the Alberta Human Rights Act. There is one reference to the Canadian Charter of Rights and Freedoms, while there are eleven references to the Magna Carta. There are four references to racism, all which portray racism as events that happened in the past.

In their groundbreaking research published in their book *Blindspot: Hidden Biases of Good People*, psychologists Mahzarin R. Banaji and Anthony G. Greenwald (2016) uncovered that explicit bias is generally no longer socially acceptable in the form of overt acts of racism, but implicit bias is pervasive. Through their Implicit Association Tests (IAT), they have found that 75% of those who take the Race IAT reveal automatic “white” preference, and that includes members of racialized groups who have internalized racist stereotypes. They explain that humans are wired to prefer the familiar as this brought evolutionary advantages. However, this hangover from the evolutionary process has contributed to creating institutional practices and structures that favour the dominant group.

In the context of school-aged children, there is the question of how and when educators should be addressing the issues of race. Dr. Beverly Daniel Tatum, psychologist and author of *Why Are All the Black Kids Sitting Together in the Cafeteria*, states that children at the age of preschool begin to develop a sense of racial identity. She says, “We are better able to resist the negative impact of oppressive messages when we see them coming than when they are invisible to us” (p. 126). She goes on to say that we can teach children to question stereotypes and learn what can be done about them. In the recent decision to rework the Social Studies Program of Study, the K-6 Draft has a renewed opportunity to help our children become resistant to negative stereotyping, to amplify the voices of racialized and marginalized members of society, and to interrogate the norms that continue to promote inequality. Unfortunately, the revised blueprint suggests a curriculum that will continue to promote an “othering” of people from different cultural backgrounds, and of those other than the dominant majority.

## CLIMATE CRISIS

This year, in 2021, the Intergovernmental Panel on Climate Change (IPCC) released the report *Climate Change 2021: The Physical Science Basis*. In the first statement of Summary for Policy Makers, it states: “It is unequivocal that human influence has warmed the atmosphere, ocean and land. Widespread and rapid changes in the atmosphere, ocean, cryosphere and biosphere have occurred.” The report goes on to state that unless there are “deep reductions” in greenhouse gas emissions, the planet will experience warming of 1.5 and 2 degrees Celsius by the end of the century. This level of warming will have the impact of increased severity of weather events, drought, disruptions to the food supply chain and mass migration as certain parts of the planet become uninhabitable. Even if humanity is able to achieve the deep reductions required, students will still have to adapt their lifestyle and be able to grapple with changes to their planet like none of us have ever seen. It warrants that this curriculum would have been designed with an eye to preparing students for this future; however, it is asserted here that this curriculum has not sufficiently identified climate change as a critical issue of importance.

Out of the forty-four learning outcomes in the K-6 Draft, there are only four that are directly concerned with climate change:

1. Under the Organizing Idea of Energy, grade 5, “Students investigate and analyze energy resources”;
2. Under the Organizing Idea of Energy grade 6, “Students evaluate the use of energy resources and explain factors that influence choice”;
3. Under the Organizing Idea of Earth Systems in Grade 5, “Students analyze climate and compare it to weather conditions”; and
4. Under the Organizing Idea of Earth Systems in Grade 6, “Students investigate climate and describe the interactions between the Sun, water, air, and land.”

Students learn the difference between renewable and nonrenewable energy resources, and they learn to weigh the factors in considering which kinds of energy resources to use: availability, accessibility, extraction process, efficiency technologies required to transform for different purposes, transportation and distribution, societal impacts, economic impacts, environmental/climate impacts. Environmental impacts are included as the last on a list of nine factors - as if this is a moment when those nine factors have equal weight of importance.

Perhaps the most troubling evidence of wishful thinking appears in the following statement:

“Energy use may have environmental or economic impacts, including human-caused (anthropogenic) climate change.”

While the recent Dec 13/21 updates suggest there will be an increase in the content around climate change, it remains to be seen if these changes will serve our students in preparation for the magnitude of this impending reality.

In their book *Thrive: The Purpose of Schools in a Changing World*, authors Valerie Hannon and Amelia Peterson present us with an example of how we might imagine an education that is future focused, realistic about the challenges to come, and yet still hopeful for how we might come out on the other side. They propose a balanced purpose for education that works on four levels:

1. Planetary/Global Level: How can we contribute to the thriving of our home planet and within the global community of which we are now all a part?
2. Societal Level: How can we learn to build thriving communities and nations?
3. Interpersonal Level: How do we learn to build thriving relationships?

#### 4. Intrapersonal Level: How can we learn to grow the thriving self?

At the **global level**, the authors urge educators and policymakers to allow young people to share in the design of a sustainable economy that goes beyond the measures of material wealth and consumption. They assert that partnerships with indigenous communities will be critical as we learn to develop a sense of “trusteeship” and begin to “accept the idea that other species and living beings are not our playthings”. Future generations will need to learn how to make, build and maintain the things we need, to grow sustainable sources of food, and generally live in a more respectful relationship with the land. They will also need to be prepared and willing to combat racism and xenophobia as we experience increased global migration so they can live in a peaceful society.

At the **societal level**, the authors speak to the need to help our students navigate disrupted economies, and to be prepared to advocate for automation and digitization to work for the benefit of the common good. Can we imagine a world where we work less but are still paid a living wage, or will it be a world where technological advances will continue to widen the gap between the rich and the poor? As well, as artificial intelligence begins to make its impact, our students will need skills that allow them to fulfill roles within sectors that cannot be automated, such as the creativity economy or the caregiving industry.

At the **interpersonal level**, we will need to find ways to maintain relationships in an increasingly technological world, but also a world that will no longer be able to provide for as much personal space and single-family dwellings. Turning 100 will likely become the new normal, so we will need to consider what successive careers might look like and the need for becoming re-educated or retrained at a much later age. The authors suggest that perhaps we can bring our elders back into the education of our young people as traditional societies have been doing for thousands of years.

At the **intrapersonal level**, we will need to face increasing challenges with mental health and how we construct our identities. The WHO predicts that within 20 years, depression will be one of, if not the foremost health issue. Is there a way we can combat that by building a reconnection with nature back into our daily work and educational experiences? And recognizing that there will likely be less work to go around, we will have to find ways to value and center our identities outside of work.

We cannot know for certain what the future will bring, but it is quite clear that the proposed curriculum is grasping for a past that no longer serves the needs of our students.

Students need to acquire knowledge, but they need to know things that can be organized and connected together into a meaningful schema. They need thinking skills that enable them to use that knowledge in productive ways. They need relationship skills and emotional self-awareness to lead healthy lives. They need naturalistic intelligence to be able to live in a good way with their planet. They need cultural competency to know how to navigate interactions with people who look, act and think differently than they do. This is a tall order that would be impossible to achieve in the eight months that it took to develop the Draft.

## DEVELOPMENTAL APPROPRIATENESS

This last section presents an analysis of the content of the curriculum from the perspective of psychological, cognitive and educational research on the developmental stages of elementary-aged children.

Piagetian theory places the elementary-aged student in the concrete-operational stage (Piaget, J. and Inhelder, B. 1969). In this stage children are developing their capacity for logical thought, but they are still limited in their

ability to work with mental representations. Hence the title “concrete” as they are able to learn best when they can still connect ideas to tangible representations or experiences that directly relate to the self. It is not until the formal operational stage, that students are able to engage in more abstract reasoning, such as thinking hypothetically and making reasoned predictions.

This research raises serious questions about the content of the K-6 Draft, particularly with respect to the Social Studies curriculum and the amount of content focused on ancient history. While it certainly is age appropriate for students to learn myths and legends, the vast majority of the content is outside the scope of an elementary student’s capacity to reason.

Although children can learn the factual content of history by rote, such knowledge is not evidence that children can reason logically within the historical context. History instruction must accommodate the developmental thought processes of children if a conceptual understanding of historical content is to be achieved. (Moore, J. R., Alouf, J. L., & Needham, J. (1984).)

Students must be able to think symbolically about the events and the people of the past, solidify them in their imagination and then identify with them if they are to achieve the ability to think historically. Introducing content that is so far removed from the experience of the student implies that the writers of the curriculum simply wish students to unquestioningly learn the facts.

Much the same can also be said about the study of Economics in the Social Studies curriculum. Without the ability to think critically about the underlying ideologies of economic systems, never mind the conceivable disregard for the sensitivities some students might have to discussing money due to their family’s socioeconomic status, this curriculum could be considered as a presentation of an ideology of indoctrination into a preference for capitalism.

This goes as well for the study of Financial Literacy in the Mathematics curriculum. Competition and accumulation of wealth for the purposes of consumption remains unexamined and there is little opportunity to consider alternative ways to distribute wealth and consider investment strategies that are ethical and sustainable. If the content cannot be discussed meaningfully at the typical developmental level of an elementary student, which these topics cannot, it should not be included in the Program.

## RELIGIOUS STUDIES

The inclusion of mandatory religious studies in the K-6 Draft is potentially quite problematic for teachers and for schools, should parents choose to exercise their right of choice in programming.

According to the most recent Statistics Canada information, 68% of Canadians 15 and older report a religious affiliation. 54% consider their religious beliefs to be somewhat or very important. 25% said they participate in a group religious activity at least once a month, and 30% said they participate in a religious or spiritual activity on their own at least once a week. 18% of Canadians who reported a religious affiliation said that religion is of little or no importance to them.

Religious studies exist as a potentially controversial and contentious issue as there is a great diversity of views on this topic. There are families for whom this is a very important part of their identity, and other families who actively disregard it. Notably absent is the study of atheism or agnosticism, despite the fact that 32% of families have indicated no religious affiliation. Given the potential for strong feelings to exist on either side, it is strongly recommended that religious studies remain an optional subject of choice at the high school level. Teachers



should not be mandatorily expected to navigate such a complex and sensitive topic with young children. More appropriately, students should be learning about the protected grounds covered under the Alberta Human Rights Act, one of which is Religious Beliefs. Unfortunately, this does not appear in the K-6 Draft. Learning about protected grounds would be a more productive and equitable use of instructional time that also happens to support the goal of maintaining a pluralistic society.

There is a great deal of content that is dedicated to the study of religion and should parents choose to have their child opt out, this would prove to be incredibly problematic for schools to manage. Religious education is best left with the home and its institutions.

## MATH MIGRATION

There are also serious concerns about the migration of grades 7-9 Mathematics outcomes to the grades 4-6 levels. Students in grades 4-6 are just beginning to develop their ability to think multiplicatively and use their proportional reasoning skills. This is a time when they ought to be deepening their understanding of fractions and decimals, without further complicating matters by including operations with integers. This is well supported by the research that underpins the *Diagnostic Map in the First Steps in Mathematics Program*. The development of this Diagnostic Map is based on an extensive literature review and hundreds of math interviews that were conducted with students. The Factoring Phase of the map, which is typical for students aged 9 - 11 years, states that the big idea is to be able to think additively and multiplicatively. It is not until the Operating Phase of 11 - 13 years that students are able to think of multiplications and divisions in terms of operators. In other words, they begin to move from a more concrete and visual understanding of mathematics towards the more formal and abstract. Students are just beginning to conceive of multiplication as not only repeated addition, but also as a rate or “times as many”.

To interrupt and divert from this natural progression by adding in multiplication and division with integral numbers will only serve to reward the minority percentage who are able to learn procedure and intuit conceptual understanding. The rest of the students will be left behind and will find their opportunities for advanced education to be severely limited.

## LANGUAGE ARTS AND LITERATURE

Lastly, it is necessary to address the imbalance that has been placed on both the French Immersion and English Language Arts and Literature (ELAL) program. The structured literacy approach that is evident in the ELAL program, as has been previously stated, is supported by research and makes clear the components and progression for instruction. However, this structure has also been imposed on the French Immersion Language program which has a very different philosophy and starting point for students. If the student’s first language is English, they enter into the program with a sizable repertoire of language in their verbal memory. Structured literacy builds off that repertoire; however, we would argue that the verbal acquisition of language is not recognized as strongly as it should be in the primary grades of ELAL.

Conversely, in the French Immersion program, students typically commence the program with little to no verbal memory of French as they generally have not been exposed to the language in the home. Therefore, it is extremely important in the primary years that students spend extensive time in acquiring their verbal repertoire. French Immersion is very different from French as a Second Language (FSL). In French Immersion, students acquire the language through use in an immersive environment. In FSL, students learn about the language in a

more grammatical and analytical way and then apply its use. The K-6 Draft has more of an FSL feel with its emphasis on grammar and its move away from emphasizing the use of the language through Oral Production, Oral Comprehension, Written Production and Written Comprehension.

## CONCLUSION

This review began with an essential question: What do we believe is the purpose of formal, public schooling in Alberta? The overarching message is that our purpose ought to be inclusive and promote success for all students. Curriculum should not have the impact of gatekeeping students who may not fit a historical notion of success. While we may recognize that acquisition of knowledge is important, knowledge acquisition cannot exist in isolation from teaching students how to think independently. We urge the Ministry of Education to enter into a revision process that goes beyond mere topographical changes. We advocate for changes that are genuine and meaningful, that arise out of serious consideration for the spirit and the science of learning, and that place the child as most important before all other things.

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