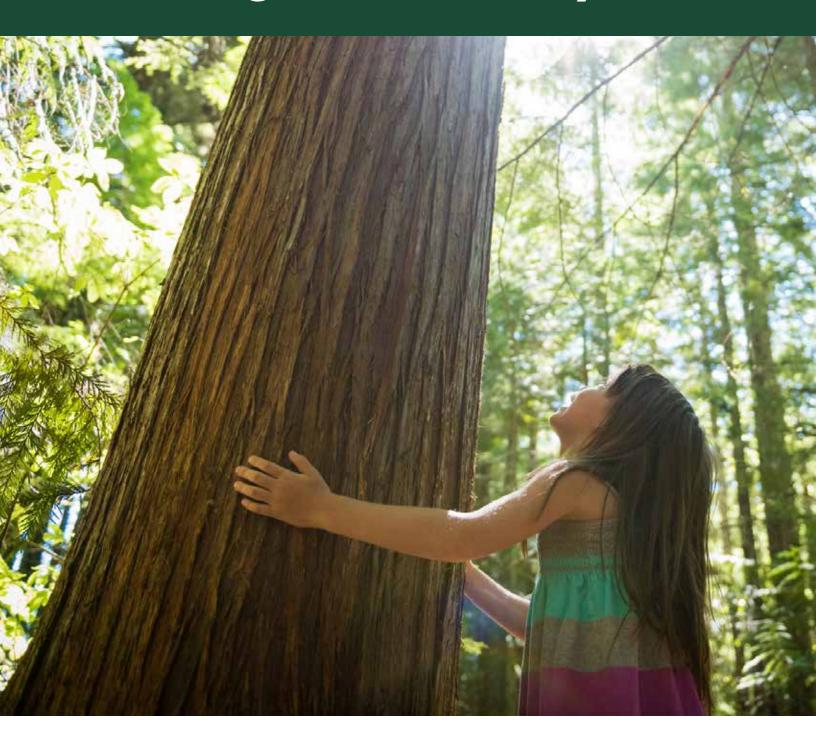
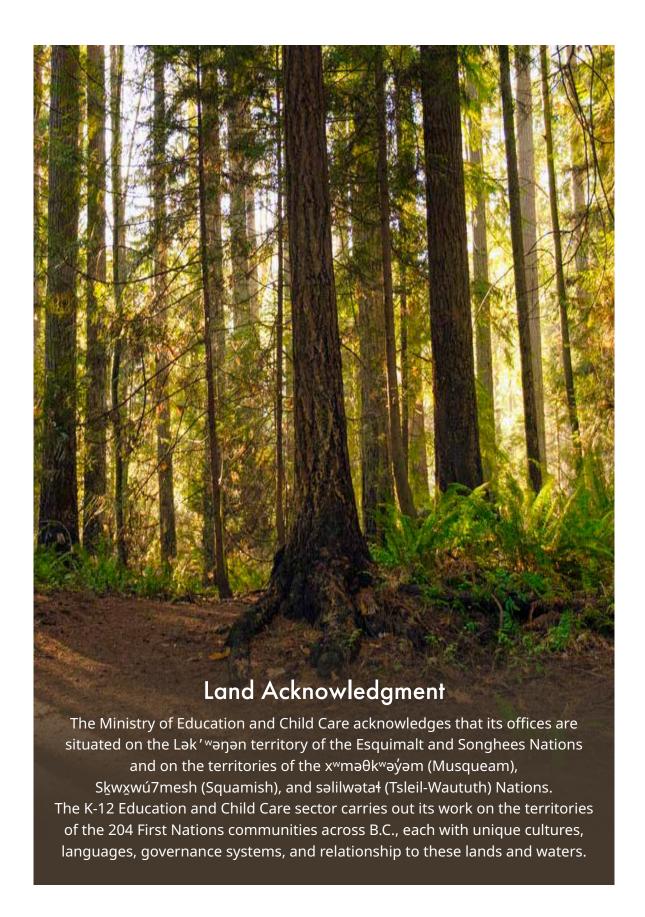
# British Columbia

# Learning in the Primary Years









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**Learning in the Primary Years** is intended to support teachers in nurturing the hearts and minds of young children from Kindergarten through Grade 3, fostering a sense of wonder and encouraging endless curiosity. It is also intended to be relevant, inspirational, and informative and provides connections with the <u>British Columbia Early Learning Framework</u>, the <u>Indigenous Early Learning and Child Care Framework</u>.

This resource is the culmination of a collaborative process built on the original Primary Programs (B.C. Ministry of Education, 1990 and 2000), refocused to bring the ideas into today's context. Central to this process has been the acknowledgment that the Primary Programs have been, and continue to be, vital to primary educational practices for all educators, children, and families in British Columbia. Building a partnership of equals.

## Learning in the Primary Years consists of two parts:

## Part 1: Foundations for learning

Describes the foundations that strengthen children's holistic learning in the primary years, explains why they matter, comments on the science and research relevant to them, and provides some ideas as to how they might look in practice.

## Part 2: Connecting learning and teaching practices

Suggests possibilities for practice based on the foundations for learning, identifies lenses through which to view learning and teaching practices, describes the documentation of learning, and highlights the importance of continuity of learning from birth to age eight.

#### Definitions, citations, and contributors

Terms that are in **bold** the first time they appear in the body of the resource are defined in the glossary. Full citations for all sources referenced in the resource are provided in the reference list. Contributors to *Learning in the Primary Years* are identified in the acknowledgments.



#### The current context

Significant developments in British Columbia's social, political, economic, and cultural contexts have in recent years created, and will continue to create, new realities for children, families, and communities. *Learning in the Primary Years* acknowledges these new realities and supports efforts to think about practice within the context of a changing world.

#### Within this context, Learning in the Primary Years:

- ◆ Strives to contribute to lasting **reconciliation** with **Indigenous** Peoples, anchored by the province's cross-government commitment to fully adopt and implement the <u>United Nations Declaration on the Rights of Indigenous Peoples</u> and the Truth and Reconciliation Commission of Canada's <u>Calls to Action</u>, as well as supporting British Columbia's <u>Declaration on the Rights of Indigenous</u> Peoples Act and the <u>UN Convention on the Rights of the Child</u>
- Values the diversity and richness of Indigenous communities throughout B.C., which includes the three distinct groups of Indigenous peoples: First Nations, Métis, and Inuit.
- Emphasizes the importance of access to cultural enrichment resources from Indigenous perspectives and supports awareness of Indigenous language revitalization
- Envisions learning as a holistic process where children and adults come together in relationship with each other, with ideas, and with materials, places, and histories
- Envisions play and play experiences as having a profound impact on all areas of children's growth and development
- Emphasizes the value of social-emotional well-being and inclusion
- Avoids language, concepts, and practices perpetuating colonial legacies that marginalize Indigenous Peoples
- Incorporates recent provincial curriculum and assessment changes and connects with the curriculum's Core Competencies
- Emphasizes the need to further explore the continuity of learning and transitions from the early years to the primary years



The continuum of learning from infancy through the primary years is a powerful driver that carries forward into later school years and beyond. By considering learning as a continuum beginning at birth, teachers and early childhood educators can forge a continuous path in education that begins in early childhood and continues seamlessly to Grade 12 and beyond. This continuity is established through early childhood educators and teachers continuing to share their ideas and goals. **Educators** can harness the power of play in learning settings for children of all ages to support this continuity.



# Connecting with the Early Learning Framework and the First Peoples Principles of Learning

The *British Columbia Early Learning Framework* is an invitation to re-envision early care and learning spaces, education systems and society. It is intended to promote dialogue about understandings of childhood, knowledge, education, and learning. It includes a set of principles that reflect ways of thinking about childhood, learning, and practising that underpin the vision of respectfully living and learning together.

The *First Peoples Principles of Learning* were developed in 2012 by the First Nations Education Steering Committee, a policy and advocacy organization that represents and works on behalf of **First Nations** in B.C., with a mandate to support First Nations students and advance First Nations education in the province. The *First Peoples Principles of Learning* are specific to **First Peoples** and were articulated by Indigenous Elders, scholars, and knowledge keepers.



These principles are connected to inspire pedagogies for all children, families, and communities regardless of ethnicity, sexuality, **culture**, language, abilities, or socioeconomic status.

#### **Early Learning Framework Principles**

#### First Peoples Principles of Learning

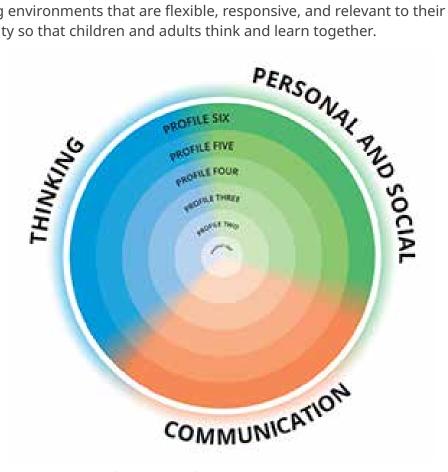
- Children are strong, capable in their uniqueness, and full of potential.
- Families have the most important role in contributing to children's well-being and learning.
- Educators are researchers and collaborators.
- Early years spaces are inclusive.
- People build connection and reconnection to land, culture, community, and place.
- Environments are integral to well-being and learning.
- Play is integral to well-being and learning.
- Relationships are the context for well-being and learning.
- ♦ Learning is holistic.

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

## Connecting with the B.C. curriculum

As Kindergarten to Grade 3 teachers explore the learning standards of B.C.'s curriculum with their students, they cultivate strong foundations in literacy and numeracy, and support the development of future citizens who are competent thinkers and communicators, and who are personally and socially competent in all areas of their lives.

B.C.'s curriculum also includes the Core Competencies, sets of intellectual, personal, and social-emotional proficiencies that all students need in order to engage in deep, lifelong learning. The Core Competencies and the *Early Learning Framework's* Living Inquiries share philosophies and **pedagogies** that support educators in designing environments that are flexible, responsive, and relevant to their local community so that children and adults think and learn together.



The B.C. curriculum's Core Competencies.

## Using Learning in the Primary Years

Learning in the Primary Years is intended to inspire teachers to engage in deep thinking about their practice. It provides ideas for teachers to consider in collaboration with others. Both teachers and early childhood educators may also use this resource for planning and ongoing professional learning.



# Part 1: Foundations for Learning



**Part 1** describes the pedagogical foundations for *Learning in the Primary Years*. These five foundations for learning share a holistic, **constructivist** perspective and focus on the development of the whole child. All foundations endorse strengths-based perspectives and foster a **growth mindset**. Together the foundations encourage the development of healthy relationships, positive identity, empathy, trusting and co-operative interactions, and a sense of belonging.

In some cases, the foundations overlap or are integral to one another. Whether approached individually or in integrated ways, these foundations play an essential role throughout all years of schooling and life.

The foundations for learning provide ideas for both primary teachers and early childhood educators to explore, examine, and reflect on for use in their classrooms and **learning spaces**.

The foundations for learning share a holistic, constructivist perspective and focus on the development of the whole child.

### Social and emotional learning

#### Social and emotional learning (SEL)

programs and practices teach people personal and interpersonal competencies that support their relationships and enable them to work effectively and ethically with others. Accordingly, SEL aims to help children and adults develop fundamental skills for success in both school and life.

In SEL, social and emotional competencies are viewed as "mastery skills" underlying virtually all aspects of human functioning. Moreover, SEL emphasizes active learning approaches to generalize skills across curriculum areas and in the context of others. Simply put, "social and emotional learning is not another thing on the plate; it is the plate!" (Schonert-Reichl, 2022).

Implementing SEL contributes to environments of belonging and inclusion in which children and their peers can thrive. SEL is the path to social-emotional strength, flexible thinking, and responsible global citizenship.

Social and emotional learning (SEL) is an integral part of education and human development. SEL is the process through which all young people and adults:

- Acquire knowledge, skills, and attitudes to develop healthy identities
- Manage emotions and achieve personal and collective goals
- Feel and show empathy for others
- Establish and maintain supportive relationships
- Make responsible and caring decisions

(Adapted from CASEL, n.d.)





#### SEL and the Core Competencies

British Columbia's curriculum recognizes the importance of these personal and interpersonal competencies through the Core Competencies. Along with literacy and numeracy foundations, the Core Competencies are central to the provincial K-12 curriculum and assessment system and directly support students in their growth as educated citizens.



#### There are three Core Competencies in the curriculum:

- ◆ <u>Communication</u> The Communication competency encompasses the knowledge, skills, processes, and dispositions we associate with interactions with others. Through their communication, students acquire, develop, and transform ideas and information, and make connections with others to share their ideas, express their individuality, further their learning, and get things done.
- Thinking The Thinking competency encompasses the knowledge, skills, and processes we associate with intellectual development. It is through their competency as thinkers that students take subject-specific concepts and content and transform them into a new understanding. Thinking competence includes specific thinking skills as well as habits of mind and metacognitive awareness. These are used to process information from a variety of sources, including thoughts and feelings that arise from the subconscious and unconscious mind and from embodied cognition to create new understandings.
- Personal and Social The Personal and Social competency is the set of abilities that relate to students' identity in the world, both as individuals and as members of their community and society. Personal and social competency encompasses what students need to thrive as individuals, to understand and care about themselves and others, and to find and achieve their purposes in the world.

Development of Core Competencies begins at home, before children enter school, and then continues throughout life. Children encounter opportunities to develop their competence in formal and informal settings. They move from demonstrating competence in relatively simple and highly supported situations, to demonstrating independence in more complex and varied contexts. Competency development does not end with school graduation but continues in personal, social, educational, and workplace contexts.



#### The CASEL framework

The <u>Collaborative for Academic, Social, and Emotional Learning</u> (CASEL) is an organization at the forefront of North American and international efforts to promote SEL. CASEL's SEL framework, also known as the CASEL wheel, is one of the most recognized SEL frameworks worldwide. The five SEL competencies that make up the CASEL SEL framework allow people to develop their self-identity, appreciate diverse perspectives, establish healthy relationships with one another, cope with difficult situations, and solve problems independently and collaboratively. The five competencies are self-awareness, self-management, social awareness, relationship skills, and responsible decision-making.

CASEL's five SEL competencies are woven throughout the Core Competencies of the B.C. curriculum. In addition, social and emotional learning competencies support key objectives identified in B.C.'s approach to Sexual Orientation and Gender Identity (SOGI) and racism, and its K-12 Anti-Racism Action Plan – for example, self-identification, continuous learning, respect, and humility.

## CASEL's five SEL competencies

**1. Self-awareness** is the ability to identify and recognize emotions and thoughts, and their influences on behaviour.

Self-awareness includes recognizing our strengths and challenges, being aware of goals and values, possessing a well-grounded sense of self-efficacy and optimism, and having a growth mindset. Having high levels of self-awareness requires recognition of how thoughts, feelings, and actions are interconnected.

Dimensions of self-awareness include integrating personal and social identities; identifying personal, cultural, and linguistic assets; demonstrating honesty and integrity; linking feelings, values, and thoughts; examining prejudices and biases; and developing interests and a sense of purpose.

- 2. Self-management is the ability to regulate emotions, thoughts, and behaviours effectively, including managing stress, delaying gratification, controlling impulses, self-motivation, and perseverance through challenges to achieve personal and educational goals. Self-management also includes self-management within social interactions. Other self-management skills involve planning and organizational skills, showing the courage to take initiative, and demonstrating personal and collective agency.
- **3. Social awareness** is the ability to take the perspectives of others including those who come from a different background and culture to empathize with others, understand social and ethical norms, and recognize resources and "supports" in family, school, and community.

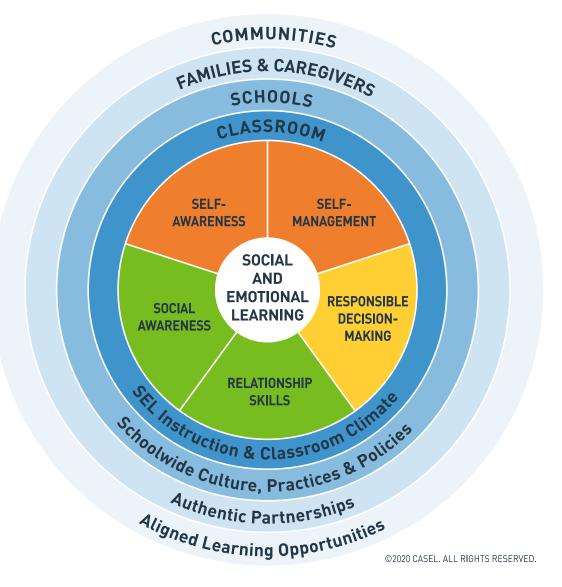
Other social awareness competencies include recognizing strengths in others, demonstrating empathy and compassion,

showing concern for the feelings of others, understanding and expressing gratitude, identifying diverse social norms (including unjust ones), recognizing situational demands and opportunities, and understanding the influences of organizations/systems on behaviour.

- 4. Relationship skills enable the establishment and maintenance of healthy and supportive relationships and to effectively navigate settings with diverse individuals and groups and with differing social and cultural demands and opportunities. This includes the ability to communicate clearly, listen actively, cooperate, negotiate constructively during a conflict, solve problems with others, demonstrate cultural competency, practise teamwork and collaborative problem-solving, resist social pressure, show leadership in groups, offer and seek help when needed, and defend the rights of others.
- 5. Responsible decision-making includes the knowledge, skills, and attitudes needed to make constructive choices regarding behaviour and social interactions, while considering safety concerns, ethical standards, social and behavioural norms, consequences, and the well-being of self and others, and evaluating the benefits and consequences of various actions for personal, social, and collective well-being.

Additional competencies for responsible decision-making include demonstrating curiosity and open-mindedness; identifying solutions for personal and social problems; learning to make a reasoned judgment after analyzing information and facts; recognizing the value of critical thinking skills both inside and outside of school; reflecting on our roles in promoting personal, family, and community well-being; and evaluating our personal, interpersonal, community, and institutional impacts.

The five SEL competencies that make up the <u>CASEL Framework</u> reflect a child's world – from families and caregivers to schools and communities.



The CASEL Framework

SEL helps connect the heart and mind. Teachers can explicitly teach and model SEL, and in doing so, they can provide young children with the tools and competencies to holistically integrate thinking, feeling, and a way of being.



#### A systemic approach to SEL

There have been broad efforts to make SEL an enduring aspect of education. Using SEL practices at all levels of school interactions, from leadership, to teaching and learning efforts through to engagement with families and communities provides adult modelling for children as well as improving relationships that encircle children in schools. Systemic SEL is an approach to creating learning conditions that involves all Pre-K to Grade 12 children in learning and practising social, emotional, and academic competencies that are equitable (Taylor et al., 2017).

These conditions require aligned policies, resources, and actions at the provincial and district levels. When aligned, local schools and communities build adults' personal and professional capacities to implement and continuously improve evidence-based programs and practices; create an inclusive culture that fosters caring relationships and youth voice, agency, and character; and support collaborative school-family-community partnerships to enhance child development.

Especially noteworthy in this description of systemic SEL is that any approach to promoting social-emotional competence in children must consider the interpersonal and intrapersonal capacities of the adults in the education system. Effective SEL interventions and skill development occur when adults create a safe, caring, and supportive environment and have the competencies and knowledge to effectively implement SEL programs and practices (Schonert-Reichl, 2017).

SEL implementation requires three distinct and interrelated dimensions: the learning context, children's SEL, and educators' SEL. The illustration below shows these three dimensions in a circle, illustrating their interconnectedness: each dimension is both influenced by and influences the other dimensions.



The three essential ingredients of SEL.

#### Why does social and emotional learning matter?

Any approach
to promoting
social-emotional
competence in
children must
consider the
interpersonal
and intrapersonal
capacities of the
adults in the
education system.

Recognizing and managing emotions (self-regulation) is critical for children's success in school and in life. In addition, showing empathy and caring for others is necessary for the development of positive relationships with peers and adults. A setting where people make good decisions and behave responsibly provides a healthy environment, where everyone feels valued and can achieve collective goals.

Many young children cannot self-regulate on their own. Teachers and peers can therefore be co-regulators, modelling and guiding self-regulation strategies. Co-regulators model a calm demeanour and work with children through breathing, meditation, or grounding exercises while using empathic language. These actions allow children to feel safe and help them learn to self-regulate over time.

Responsive, reciprocal relationships with adults and peers, where children are valued, viewed as competent, have a sense of belonging, and feel grounded in their immediate environment, communities, culture, and the wider world. This in turn supports children in learning about and investigating the world around them, and contributing to the well-being of their family, community, and society.



Simply put, social and emotional learning is not another thing on the plate; it is the plate!"

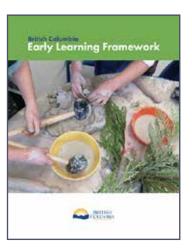
(Schonert-Reichl, 2022)

Educators value each child's contributions and the knowledge they share, creating inclusive environments where every child feels confident in achieving their highest potential and where differences are recognized and celebrated. This confidence is essential for children in exploring their capacities as family members, friends, thinkers, and citizens and discovering their connections with the natural environment.

## Early Learning Framework connections

Facilitating well-being and a sense of belonging in children includes focusing on:

- Joy in relationships with people, places, materials, and ideas
- Cultural and world views
- Indigenous voices and perspectives
- ♦ **Diversity** and difference
- Family composition and gender orientation
- Safety and respect
- Nourishment and physical activity
- Every child as a gift
- Children's interests and inquiries



#### Research findings: SEL

The benefits of SEL have been well studied, with a large body of research indicating that high-quality SEL programming improves academic performance and decreases anxiety and behaviour issues, among other benefits. CASEL's "What Does the Research Say?" (n.d.) provides rich information.

SEL skills are malleable and can be taught.

Some cognitive and social-emotional knowledge, skills, attitudes, and values are considered "malleable" – that is, they can be taught and promoted through education and other experiences. Therefore, actively teaching and working toward improvement on these skills will support children to grow into adults with positive skills and traits in social-emotional areas. SEL is grounded in research from developmental cognitive neuroscience (e.g., Diamond, 2012) that indicates that social-emotional skills can be taught across the lifespan and are more malleable than IQ.

Since teachers lead SEL programs and practices in classrooms and schools (Schonert-Reichl, 2017), their own social-emotional competence and well-being have a significant impact on their relationships with children and are critical in influencing the learning context and the infusion of SEL into classrooms and schools. Indeed, classrooms with warm teacher-child connections facilitate deep learning in children. In addition, when children feel comfortable with their teachers and peers, they are more willing to grapple with challenging material and persist in complex learning tasks.

Emotional literacy is as vital as any other skill and is central to children's ability to interact and form relationships."

(Denham & Burton, 2003, p.1)

Efforts must be made to support the development of teachers' SEL competencies to support their classroom performance and their ability to promote SEL in children.





In summary, research supports the importance of fostering SEL in young children:

- SEL competencies can be learned through lessons and/or practices specifically designed to enhance social and emotional competencies.
- SEL competencies are malleable and can be strengthened throughout life.
- How children feel affects their learning; recognizing and understanding emotions is critical to forming and maintaining relationships.
- There is an inextricable link between young children's social-emotional competence and life and school success; this link becomes particularly important during the transition to Kindergarten.
- Relationships are central. The quality of a person's relationships and social interactions shapes their overall development as well as both physical and brain health.
- Play can reduce stress, increase calm, recalibrate biological regulatory systems, maintain social and emotional equilibrium, and build competencies and resilience to produce a feeling of well-being.
- ◆ The early years set the foundation for learning, development and wellbeing that carries forward into adolescence and adulthood. It is a time of opportunity to get the foundation right and launch children on optimal pathways, but it is also a time that can introduce risks that increase learning difficulties and mental health challenges.
- Investing in children's social-emotional development reduces potential mental health challenges.

# Something to think about

#### Suggested classroom-based approaches

SEL approaches include:

- ◆ Teaching practices through which social-emotional competences and attitudes are taught, made visible, and practiced in developmentally contextually and culturally responsive ways
  - Nature play, co-operative learning, Circle of Courage, project-based learning, and inquiry
- ◆ Integrating SEL and curricula, such as literacy, numeracy, science, arts, social studies, physical and health education, and sports
- Promoting social-emotional competence through evidence-based programs and practices

#### Suggested learning strategies

The following learning strategies stimulate ideas and discussion among teachers, early childhood educators, support staff, children, and parents.

SEL is evident when children:	Teachers promote SEL when they:
Demonstrate trust and confidence	<ul> <li>Show genuine affection, understanding, and respect for all children</li> </ul>
<ul> <li>Make choices, accept challenges, take considered risks, manage change, and cope with frustrations and the unexpected</li> </ul>	<ul> <li>Ensure that all children experience pride in their attempts and achievements</li> </ul>
<ul> <li>Show an increasing capacity to understand, self-regulate, and manage their emotions in ways that reflect the feelings and needs of others</li> </ul>	<ul> <li>Promote children's sense of belonging, connectedness, and well-being, and recognize and value children's identities</li> </ul>
<ul> <li>Assert their capabilities and independence while demonstrating increasing awareness of the needs and rights of others</li> </ul>	<ul> <li>Challenge and support children to engage and persevere in tasks and play</li> </ul>
<ul> <li>Recognize the contributions they make to shared projects and experiences</li> </ul>	<ul> <li>Talk with children about their emotions and responses to events with a view to supporting their understanding of emotional regulation and self-control</li> </ul>

## The play-learn connection

Current research and the "lived experiences" of children and teachers recognize the connections between play and learning. The expression "children learn through play" can seem like a platitude, but decades of research support its wisdom. For example, Stuart Brown (2009), a leading play researcher, concludes that play is essential in human brain development and positive social interactions. Likewise, researchers Stuart Lester and Wendy Russell (2008) conclude that play affects the architecture of human development - how brains are built and how our genes are expressed.

Teachers can leverage the learning potential in children's play, challenging and extending their capacity to explore, imagine, negotiate, construct, plan, manipulate, solve problems, dramatize, create, and experiment. In addition, play in the primary years offers opportunities to embed the First Peoples Principles of Learning, including "Learning is holistic, reflexive, reflective, experiential, and relational (focused on connectedness, on reciprocal relationships, and a sense of place)" (First Nations Education Steering Committee, 2012).



The Circle of Courage is a model of positive youth development first described in the book Reclaiming Youth at Risk, coauthored by Larry Brendtro, Martin Brokenleg, and Steve Van Bockern. The model integrates Native American philosophies of child-rearing, the heritage of early pioneers in education and youth work, and contemporary resilience research. The Circle of Courage is based in four universal growth needs of all children: belonging, mastery, independence, and generosity.



#### Research findings — Play

Research shows that play-based learning promotes both developmental learning (e.g., social-emotional skills and self-regulation) and academic learning (e.g., literacy and numeracy).

### Why does a continuum of play-based learning matter?

The continuum of play-based learning provides a framework that includes child-directed play, teacher-guided play and teacher-directed play (Pyle & Danniels, 2017). This framework supports educators to incorporate play-based learning into their practice.









The continuum of play-based learning is an alternative to simply alternating direct academic instruction with free-play periods.

Instead, educators can intentionally design play-based learning experiences from across the continuum with varying degrees of child direction and educator guidance.

The type of program and who the children and educators are will influence how the continuum is used."

(Ministry of Education, 2019, p. 39)



#### Free play

Child-initiated, unstructured, self-directed, internally motivated, voluntary, and often thrilling



#### Inquiry play

Begins with child-initiated investigations, often through exploratory play



# Collaborative play

Child-directed play with teacher support



#### Playful learning

Planned play experiences relevant to children's interests and abilities



# Learning games

Prescribed learning experiences with specific rules

Pedagogical strategies for play-based learning (adapted from Pyle & Danniels, 2017).

Play-based pedagogies expressly include varying levels of teacher involvement."

(Pyle, Pyle, et al., 2020, p. 54)





In redefining play as a spectrum with varying degrees of child autonomy and adult guidance, the guided play has been situated as a 'middle-ground' between free play and direct instruction."

(Skene et al., 2022, p. 1162)

#### The teacher's role in play-based learning

Alongside the continuum of play-based learning, a parallel continuum defines the role of teachers, from non-obtrusive observation to direct instruction. The strategies below describe how teachers can intentionally design play-based learning experiences that maximize children's learning and well-being:

Free play	Teachers set the stage by organizing time and space for children's unstructured play. They put uninterrupted blocks of time in the schedule. The indoor or outdoor space offered to children is not a "set-up" by teachers to influence the play. Instead, space and objects are available and left to the children to organize. Teachers can observe and note what children know, understand, and can do. By closely observing free play, teachers gain new insights into how children think and learn that can inform guided play and learning games.
Inquiry play	Teachers extend child-initiated ideas and explanations through questions, <b>provocations</b> , investigations, and representations. Teachers challenge children's ideas and encourage them to solve problems, seek opportunities, access resources, or try something new.
Collaborative play	Teachers seek opportunities to enter children's free play and incorporate targeted skills into their play. They bring an intentional learning focus into children's play while still respecting children's lead in the play. Further, teachers may introduce literacy or numeracy props and materials.
Playful learning	Teachers design learning experiences focusing on specific emerging skills and learning objectives and they can incorporate children's play narratives. Teachers provide guidance and prompts and then intentionally set up the environment to focus children's explorations and actions.
Learning games	Teachers identify specific learning outcomes appropriate for an individual or group of children and prepare structured activities, typically games, that are often related to literacy or numeracy. Teachers can readily monitor and assess each child's specific skills.

Teacher-guided play (inquiry learning, collaborative play, and playful learning) enables teachers to extend children's learning by applying what they know from observing free play and monitoring teacher-directed learning games.

#### The play-learn continuum

An education system is most effective when each level flows seamlessly into the next. Consistency and continuity are vital as children move through the early learning and primary years. Learning from new experiences is most effective when it is linked with what children already know, their awareness of their learning journey, and their sense of identity. In addition, early cognitive, social-emotional, and physical competencies build on each other over time.

Learning that is seamlessly supported from infancy through the primary years is a powerful driver that carries forward into later school years and beyond. Play-based learning that adopts the play-learn continuum offers teachers a bridge from early learning to primary settings that creates continuity of learning. When children move from one learning environment to another, and those environments are consistent with each other, emerging skills and abilities will carry forward.





For a long time, educators used the terms 'play' and 'free play' synonymously. Teacher involvement in play, however, can substantively change the nature of that play and foster academic learning."

(Pyle et al., 2017.)

Play-based learning remains child-centred, often taking shape as in-depth projects integrating literacy and numeracy. Multiple studies have found that child-centred learning at primary school ages leads to better outcomes later in school and then beyond. Play-based learning practices enable teachers to recognize how children learn to understand and use language, develop inquiry skills, process ideas, and develop number sense. This results in teacher knowledge of how to introduce the most effective skills for reading, mathematics, and science (Shuey et al., 2019).





#### Play-based learning practices:

- Promote experiential and self-directed learning in later grades that capitalize on children's desire to inquire and explore their world
- Provide a solid foundation for later problem-based learning in which children learn by working in groups to solve an open-ended problem that may be complex and messy
- Prepare children to be aware of their learning, seek new information, and acquire specific skills
- ♦ Offer inclusive opportunities to assess what children understand, know, and can do that can be missed in traditional assessments
- Reflect local communities, including Indigenous perspectives and ways of knowing



In a study focused on the evolving definition of play in play-based pedagogies (Pyle, Pyle et al., 2020), researchers reviewed current literature and research on "play" in education and examined teachers' perceptions of the purpose of play and its implementation in Kindergarten classrooms, and portrayals of play-based learning in Canadian media. The study found that programs traditionally include free play in early years learning activities because of its vital role in children's social development. More recently, however, research has shown the value of other kinds of play in which teachers actively include academic learning - incorporating both literacy and numeracy acquisition.



Research has demonstrated that play can support a child's social-emotional, cognitive, and self-regulatory abilities, in addition to literacy and numeracy skills."

(Pyle, DeLuca, et al., 2020, p. 2255)

As curricula and pedagogical practices are evolving in early education, so too are the purpose and place of assessment. In another recent study (Pyle, DeLuca, et al., 2020), researchers noted that both research and policy had endorsed play as a practice that can facilitate young children's developmental and academic learning.

Research shows that play-based learning promotes developmental and academic learning.

Research shows that play-based learning promotes developmental and academic learning. Further, a shift toward play-based learning has taken place across numerous countries, including Australia, Canada, the United Kingdom, and New Zealand, where play is considered a pedagogical approach that can achieve developmental and academic learning objectives (Pyle & Bigelow, 2015; Pyle & Luce-Kapler, 2014).



Research shows that children who learn to play well with others at preschool tend to enjoy better mental health as they age. A study conducted by Yiran Zhao and Jenny Gibson (2023) provides the first clear evidence that the ability to play with peers has a protective effect on mental health. Researchers at the University of Cambridge analyzed data from almost 1,700 children ages three and seven. Those with better peer play ability at age three consistently showed fewer signs of poor mental health four years later. Significantly, this protective link between peer play and mental health held even for subgroups of children who were particularly at risk of mental health problems. The findings suggest giving young children (who might be vulnerable to mental health issues) access to well-supported opportunities to play with peers. For example, playgroups run by early years specialists – could be a way to benefit their long-term mental health (Zhao, Y. V., & Gibson, J. L., 2023).

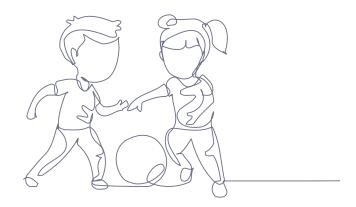
### Play Today: B.C. Handbook connections

Find much more about the value of play in the *Play Today: B.C. Handbook*, created by the B.C. Ministry of Education and Child Care.

Pages 40–68 of the handbook provide examples of activities for each category of play.



# Something to think about



#### Suggested learning strategies

The following play-learn strategies stimulate ideas and discussion among teachers, early childhood educators, support staff, children, and parents.

Engagement is evident when children:	Teachers promote this learning when they:
<ul> <li>Explore and engage with social and physical environments through relationships and play</li> </ul>	<ul> <li>Provide opportunities for children to engage in a variety of play activities</li> </ul>
<ul> <li>Initiate and contribute to play-based activities indoors and outside</li> </ul>	<ul> <li>Acknowledge each child's uniqueness in positive ways through play</li> </ul>
<ul> <li>Explore different points of view through dramatic play, taking many different roles</li> </ul>	<ul> <li>Provide opportunities for children to assess and manage risk in their play activities</li> </ul>
<ul> <li>Show enthusiasm for participating in physical and fantasy play</li> </ul>	<ul> <li>Listen, observe, and engage with children at free and intentional play to learn about children's understanding of themselves and others</li> </ul>
<ul> <li>Navigate within and through play spaces to ensure the safety and well-being of themselves and others</li> </ul>	<ul> <li>Encourage co-operative planning of ideas with others</li> </ul>
<ul> <li>Understand and assess risk and accept challenges in their play</li> </ul>	<ul> <li>Provide opportunities for children to revisit their ideas and extend their thinking</li> </ul>
<ul> <li>Use play experiences to investigate, imagine, and explore ideas</li> </ul>	<ul> <li>Use play as a vehicle for deep engagement and meaningful learning</li> </ul>



#### Inclusion

The concept of inclusive schools and classrooms is not new. In 1994, Canada and 91 other countries and 25 international organizations signed **UNESCO**'s <u>Salamanca Statement</u>. Informed by the principles of inclusion, the statement recognizes "the need to work toward schools for all institutions that include everybody, celebrate differences, support learning, and respond to individual needs."

Inclusive schools support children to develop a sense of belonging, build a sense of community, and enhance their academic potential.

#### Why does inclusion matter?

Schools reflect and influence societal values. Members of a progressive and modern society aim to respect differences and value community. Creating inclusive communities that welcome and support all children; lowers barriers for all children outside of schools and contributes to societal improvement.

Inclusion fosters a school culture of respect and belonging, which benefits all children. When children in inclusive settings learn to respect differences, demonstrate acceptance, and value diversity, they show less prejudice and more positive attitudes toward people with disabilities and diverse abilities. In addition, they develop a broad sense of ability and identity differences and accept differences as a natural part of life.





An inclusive approach is one in which all children and families are welcomed and respected. Inclusive education means that all students can attend their neighbourhood school and see themselves reflected in the classroom/learning environment. All students are supported to learn, contribute to, and participate in all aspects of their education.

Inclusion is the practice of welcoming all children to their neighbourhood school, where they can learn in safe, supportive, diverse, and age-appropriate classes in addition to moving through various school spaces. Inclusive schools support children to develop a sense of belonging, build a sense of community, and enhance their academic potential by providing the supports necessary for success.

Inclusive classrooms embrace all children, including **children with disabilities and diverse abilities**, those needing additional behaviour management support, and those with diverse racial and cultural backgrounds, to provide equitable supports.

Inclusion in schools is more than a set of strategies or practices; it is a philosophy that embraces differences and values each child's uniqueness.

#### Support for inclusion

Funding support is provided for many students with diverse abilities. Each child receives appropriate support for their unique needs and strengths from a variety of sources, such as classroom teachers, support teachers, specific professionals in districts and schools, and many others.

Targeted funding is provided to school districts to support Indigenous students. Districts and schools have responsibilities to learners of Indigenous ancestry. The <a href="British Columbia Tripartite Education Agreement">British Columbia Tripartite Education Agreement</a> and Local Education Agreements provide guidance and supports for student learning. Districts and schools take their own actions to address and create a sense of place and belonging for learners of Indigenous ancestry.



#### What makes an inclusive classroom?

Access, participation, and support are the pillars of an inclusive environment. When creating an inclusive environment, teachers consider the following:

- ◆ Access Each child can access the learning activity, the environment has appropriate accommodations, and children can work in partners or groups. Access ensures a good entry point to the learning activity for all children, and they are set up to succeed in their environment.
- ◆ **Participation** Active participation supports the healthy development and well-being of a child. It is essential that each child can participate in and throughout the learning activity and is not waiting for a different moment to begin.
- **Support** Each child receives appropriate support for their unique needs and strengths. Supports may include accommodations and modifications to the learning materials, environment, activity, and curriculum. However, the goal is to increase independence and maximize learning outcomes for the individual.







### Something to think about



#### Suggestions for supporting inclusion

- Plan for learning experiences with the diversity of the class in mind.
   School-based teams may assist by providing access to additional resources and developing inclusive supports.
- Work with common curriculum goals and assume that children will arrive at these outcomes in various ways, at different times, and with varying levels of support.
- Remember that children need to engage in learning, work socially with peers in large and small groups, and have opportunities to work independently to develop their confidence and competencies as learners. Participation in a safe and supportive environment, where learners work together to build a community of respect and belonging, brings joy and success to learning.

#### Ministry Resource Connections

You can find a current list of ministerial orders and policies supporting inclusive education on the Ministry of Education and Child Care website.



#### Children with diverse abilities

**Children with extra support needs** require ongoing, effective programming. Deep learning and skill development occurs in the classroom when all children benefit from a community of learners and support is provided to help them achieve their learning goals.

To provide an access point for all learners, teachers sometimes work together to co-create a plan. Working together, teachers can better address the needs of a range of learners, capitalize on individual learners' strengths, respond more quickly to individual needs, and decide when to deliver or access additional support outside the classroom. School-based teams and the development of individualized education plans support the learning goals of children with disabilities and diverse abilities. This support closely relates to skills children can apply daily with their peers.

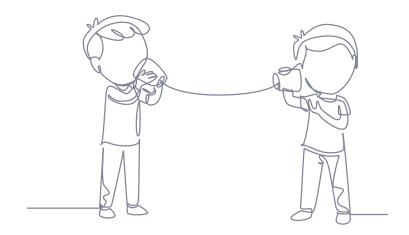
#### Research findings: Inclusion

All children benefit from an inclusive education program. Researchers have found that all children make developmental gains in inclusive settings. Children with or without disabilities and diverse abilities learn from each other and learn as equals, contributing to a culture of respect and belonging.

The <u>Canadian Research Centre on Inclusive Education</u> is a good source for current research on inclusion. Housed at Western University, the centre is a collective of renowned Canadian researchers in inclusive education who empower teachers and others with the knowledge they need to be effective with all children, including those with exceptional needs.



# Something to think about



#### Suggestions for creating an inclusive classroom

- Begin with strengths. Identify each child's strengths and the areas where growth is needed and create a class plan based on all of the children's needs and goals.
- Focus on building relationships with each child and as well as among the children in the class.
- ◆ Collaborate with non-enrolling staff learning support teachers, librarians, Indigenous support teachers, educational assistants, and the school-based team. Think about what can be done as a team to address children's social, emotional, and learning needs.
- Use Universal Design for Learning as your fundamental approach. Teach to the diversity of the children in the class rather than trying to retrofit lessons for different children. Ensure there is there always an access point for each learner.
- Use Backward Design, planning with the end in mind, with common learning targets for all, then providing support as needed.
- Work with children's parents to learn about and use their knowledge to support learning in the classroom.
- ◆ Teach with a focus on developing competencies and self-regulation for each child.
- Remember that there is no replacement for responsive teaching.
- Believe in the ability of teachers to reach and teach children.

### Something to think about



#### Suggested learning strategies

The following learning strategies stimulate ideas and discussion among teachers, early childhood educators, support staff, children, and parents.

Inclusion is evident when children:	Teachers promote inclusion when they:		
<ul> <li>Begin to recognize that they have a right to belong to many types of communities – social, geographic, and special interest, such as sports, dance, and music</li> </ul>	<ul> <li>Provide opportunities for children to investigate ideas, complex concepts, and ethical issues that are relevant to their lives and their local communities</li> </ul>		
<ul> <li>Co-operate with others within roles and relationships in play episodes and group experiences</li> </ul>	<ul> <li>Develop and implement strategies to improve children's skills for group play and project work</li> </ul>		
Take action to help other children participate in social groups	<ul> <li>Plan opportunities for children to participate in meaningful ways in group discussions and shared decision-making about rules and expectations</li> </ul>		
Participate in back-and-forth     (reciprocal) relationships	<ul> <li>Plan and provide opportunities for children to participate in community events and activities, such as parades, planting and caring for plants in parks, and collecting and delivering donations to food banks</li> </ul>		
<ul> <li>Learn to read the behaviour and body language of others and respond appropriately and with empathy</li> </ul>	<ul> <li>Plan experiences and provide resources that broaden children's perspectives and encourage appreciation of diversity</li> </ul>		

### Literacy and numeracy

Literacy and numeracy are fundamental to all learning. They are areas of considerable focus by parents and caregivers and the public and are the areas most frequently measured and reported.

The Ministry of Education and Child Care has defined them as follows:

- Literacy is the ability to understand, critically analyze, and create various forms of communication, including oral, written, visual, digital, and multimedia, to accomplish one's goals.
- Numeracy is the ability to understand and apply mathematical concepts, processes, and skills to solve problems in various contexts.

Developing literacy skills begins at an early age, and literacy thinking and communication skills can be developed in a variety of ways. Children can practise their literacy skills when making connections with a **text** (oral, written, visual, digital, etc.) through personal connections and/or prior knowledge. They may generate ideas based on their personal experiences and/or share their ideas with their peers. Developing children's literacy thinking and communication skills helps them build confidence and connect with their learning in a meaningful way.



Decisions in life are so often based on numerical information; to make the best choices, we need to be numerate."

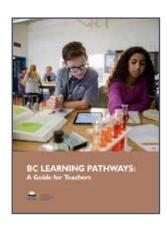
(Schleicher, 2019)

Teachers also support the development of their students' numeracy skills. While numeracy is closely connected with mathematics, they are not exactly the same thing. Developing numeracy skills allows students to use math skills, begin to develop a deeper understanding of the world around them, and use these numerate thinking and communication skills to solve problems.

#### BC Learning Pathways connections

**BC Learning Pathways: A Guide for Teachers is** 

a series of resources that support teachers in developing students' literacy and numeracy skills in all learning areas. The resources demonstrate how literacy and numeracy are connected with the entire K-12 curriculum, with all forms of classroom and provincial assessment, and with student reporting. Collectively, the resources support teachers in developing students who can think critically about the world around them, communicate their ideas and information clearly and authentically, and demonstrate their personal and social competencies in a meaningful way.



#### Why does literacy matter?

Literacy is highly important to young learners. Through literacy, children learn to listen to one another and make connections between themselves and the world around them.

Reading and writing are important foundations of learning and development for young children. It's important for this learning to take place while children are discovering that reading is enjoyable, unlocking their imaginations and building their knowledge about the world.

Literacy begins with oral language, then moves to reading and writing and extends to describing critical thinking skills, including analysis, synthesis, and communication and creation for a variety of purposes and audiences. Literacy permeates all primary classrooms. Whether in Kindergarten or Grade 3, the school day engages children in joyful, meaningful literacy experiences – creating readers, writers, speakers, listeners, and thinkers.

Early literacy experiences should build on students' prior knowledge, culture and language experiences in their homes and communities. All children benefit from access to resources for cultural enrichment and supports from Indigenous perspectives and worldviews within classrooms and schools. It is important to foster an appreciation for the power, beauty, joy, and artistry of varied language and texts from many sources. Teachers have an important role to play in supporting Indigenous language revitalization and there is a commitment to having these elements incorporated into the learning content and activities.



There is no single way to develop literacy in young children. Teachers use their professional judgment to teach reading and writing strategies that are most effective and responsive for the children they teach.



#### Developing the foundations of reading and writing

Reading and writing are important foundations of learning and development for students. Reading and writing skills begin to develop well before a student can read and write independently – it begins with speaking and listening (oral language). Teachers develop oral language proficiency by providing rich listening and speaking learning experiences in their classrooms. It is during these experiences that students begin to explore the sounds of language (phonological awareness), build receptive and expressive vocabulary, and understand how language is structured into sentences and larger discourse. Oral language development remains integral throughout the entire K-12 educational trajectory, evolving in both depth and complexity as students progress through the grades.

Understanding the structure of language on a written page is also important for the early development of reading and writing skills. Teachers play a key role in facilitating this understanding by providing students with opportunities to bridge the gap between oral and written language. Students learn that similar to oral language, words on a printed page also convey meaning. During these learning experiences, students discover that both spoken and written words can be broken down into syllables. Students understand that words are constructed from letters and letter combinations (graphemes) representing distinct sounds (phonemes).

To equip students with the necessary skills for decoding and later spelling, teachers provide enriching experiences aimed at building word reading fluency in increasing independence and automaticity. This involves creating meaningful learning opportunities to deepen students' grasp of the sounds of language (phonemic awareness) and grow their understanding of how letters and letter patterns correspond to each sound (grapheme-phoneme correspondence).

Together, well-developed oral language and word reading fluency skills lead to strong reading comprehension skills, as well as spelling and writing abilities.

The provincial Language Arts curriculum supports the development of oral language and foundational reading and writing features, structures, and conventions, including concepts of print/text, letter and word recognition, phonemic and phonological awareness, word patterns, and sentence structure. The curriculum outlines foundational skills that students learn to make sense of print, decode, read with comfortable fluency, and understand a variety of words. The curriculum also includes the development of critical thinking skills, including analysis, synthesis, and comprehension skills, as well as the communication and creation of oral and written language for a variety of purposes and audiences.



Teachers use their professional judgment to teach the reading and writing strategies that are most effective and personalized for the children they teach.

While some students in a class may experience challenges learning to read, others will arrive with these skills. Teachers provide an environment that helps emerging readers build foundational skills, while also ensuring that advanced readers

are appropriately challenged. A one-size-fits-all approach will invariably mean that the needs of some students are not being met. Instead, foundational reading and writing experiences should be reflective of student needs and offer students choices at times to encourage a sense of agency and self-efficacy in learning to read and write.

Early intervention plays a vital role in supporting a child's foundational reading and writing abilities. Classroom teachers reach out to school-based inclusive education teachers or other literacy-based school and district support services if they have concerns about a child, ensuring that every child receives the support they need to support their development as readers and writers from the very start.



#### Reading

Most children arrive at school excited about and expecting to be learning to read. To support their development as readers, teachers use a variety of methods to lay a strong foundation and deepen the love of reading in their students.

The school day involves children in joyful, meaningful literacy experiences – creating readers, writers, speakers, listeners, and thinkers. Each day, children need time to explore and read their chosen texts, follow their curiosity, and explore their passions. It is important for all children to see themselves reflected and represented in the books and stories they encounter at school, so they can envision themselves as storytellers and writers. Representation matters for all communities, especially those who are marginalized.



The school day involves children in joyful, meaningful literacy experiences — creating readers, writers, speakers, listeners, and thinkers.

Children should always have access to a book, even if they are still working to develop their foundational reading skills. Reading skills improve with practice: children's reading will improve with responsive and thoughtful instruction and guidance. Scripted programs cannot replace a knowledgeable and responsive teacher.





It is essential that all readers have a variety of strategies for decoding unfamiliar words and that they learn to use them flexibly and strategically as they read for meaning. Readers self-monitor and adjust their approaches as they read, constantly asking themselves, "Does this make sense?" If it doesn't, they may need to adjust their strategy to make sure they understand what they read.

Teachers work to ensure that readers continue to experience all components of reading. These include whole-class reading aloud, daily opportunities to choose books to read, small-group and one-to-one instruction.

Teachers will read to children regularly and purposefully from a range of texts. Teachers choose from wordless picture books, stories, and thematically related books. They guide children as they lead them from concrete subjects and topics to less concrete content. These books can spark a day's or a week's study to teach and practice foundational skills, as well as reading, writing, and thinking strategies, including connecting, processing, transforming, and personalizing. However, books and other content are often read and shared for enjoyment, not only as teaching tools.

While children are reading alone or with partners, teachers can move among them conferencing with them about what they are reading, as well as listening to them read aloud. It is during these times teachers can provide personalized feedback to grow a student's foundational skills and repertoire of reading strategies. Teachers can support children's comprehension by prompting them to begin interpreting, making connections, and analyzing text. Asking children about what they are reading demonstrates that they and their interests or passions matter.

Children need time to read books where in the first few pages, children know most of the words and understand what is happening, but introduce new words, concepts, and reading strategies to grow the child as a reader. Some teachers provide this opportunity during guided reading groups that are organized around specific skills or topics. These reading groups are teacher-led, with specific instructional and comprehension goals for each group. Children also need time to practice reading books they will be successful with independently.



#### Writing

For many teachers, establishing routines that support literacy through writing, or developing "a writing classroom," is a priority. Therefore, in the design of each day, time is included for writing.

Reading and writing are interconnected. The rich reading experiences teachers cultivate in their classrooms, are also shaping them into writers. However, the books teachers choose for their classrooms can serve as excellent mentor texts that provide children with models for their writing.



In the early years, writing begins with oral language, where students use their growing expressive vocabulary and understanding of the structure of language to communicate their ideas and tell stories. Children talk about letters, sounds, words, and sentences. They talk about their ideas and their thinking. Teachers provide a variety of opportunities for students to express their ideas, tell stories, and communicate information on a variety of topics, and in a variety of forms.

Next, children move into building physical representations or drawing as a form of written expression with the creations children make and the pictures they draw holding meaning and telling their stories. At this stage, teachers provide students with opportunities to create physical representations for a variety of purposes and leverage the students' developing oral language skills to provide space for them to further elaborate on their ideas (verbal elaboration).

Young children often tell meaningful, complex stories in the form of simple, written scribbles. As their understanding of the relationship between letters and sounds grows, children begin to label their pictures with letters representing the sounds they hear. Generally, the understanding of relationships between letters and sounds grows from initial to final sounds to medial sounds. At this stage, the focus is on meaning and communication while also helping develop their accuracy.

All children's voices need to be heard and honoured in a classroom. Their stories, their passions and interests, and their questions guide our instruction and create a strong and supportive community of learners."

(Brownlie, 2022)

Next, children move from labelling their pictures to creating more complex text below them to tell a story about the image. Sometimes this is a continuous flow of letters, with no breaks for words; sometimes known words are written separately within the context of the string of letters. Children then begin to form words and add additional ideas and sentences.

Teachers can take advantage of children's innate desire to communicate and propel young writers forward naturally, supporting this with explicit teaching. For example, teachers can write in front of the children, stretching out their sounds and modelling how letters represent sounds. Some whole class teaching works for explicit instruction; however, many teachers prefer small groups for this teaching.

When supporting children as writers, teachers often initiate side-by-side conferences that support each child's decision-making as a writer and create communities of writers where children are eager and able to write. Engagement and joy grow with this ability to do what readers and writers do.



### Something to think about



#### Co-developing criteria

Before children's work can be fairly assessed, teachers must identify what is necessary and how the **assessment** will be made. The activities of cocreating assessment **criteria** help children develop ownership of their efforts and incorporate desired or specific elements into their writing.

Children want to behave like writers and harness the power of language to compel listeners and readers to be attentive to their stories. Children use different forms of writing, learn to identify powerful words and sentences, and begin to edit their work as they move toward fulfilling co-created assessment criteria.

One-on-one conferences with children, as they write, help teachers create a community of writers who are confident and competent, eager to share their thinking and their writing with others. These writers also want to receive feedback on their work.



# Something to think about



#### Suggested learning strategies

The following literacy learning strategies are intended to stimulate ideas and discussion among teachers, early childhood educators, support staff, children, and parents.

Literacy learning is evident when children:		Teachers promote literacy learning when they:	
•	Use language and representations from play, music, and art to share their learning	•	Model language and encourage children to express themselves through language in a range of contexts and a range of purposes
*	Show increasing knowledge, understanding, and skill in conveying meaning Explore texts from a range of different	•	Design language-rich environments that provide opportunities for children to build their vocabulary and experiment with expressing
Y	perspectives and begin or continue to analyze meaning and demonstrate learning		themselves though methods such as visual arts, music, literacy, and movement
*	Share the stories, language, music, art, or drama of their own culture and reenact these as a way of sharing their		Engage children in discussions about books and other texts that promote consideration of diverse perspectives
*	culture with others  Demonstrate enthusiasm, engagement, and joy in participating in literacy activities		Teach skills and encourage children to use a variety of ways, including technologies, to explore new information and represent their ideas
•	Celebrate and share their contributions and achievements with others		Provide opportunities to engage children in a variety of co-operative projects with a variety of partners and groups
		•	Engage children in shared writing and stories to build a collaborative atmosphere and respect for all learners

#### Why does numeracy matter?

Numeracy is the ability to understand and apply mathematical concepts, processes, and skills to solve problems in a variety of contexts. In mathematics, children build strategies needed to solve problems, such as determining patterns, measuring length, or adding and subtracting; they also build skills like talking about their process and answer with evidence, and checking alternative problem-solving processes.

Numeracy begins with children's need to describe various elements of their world. Children further build and practise numeracy in all learning areas, using the mathematical skills and strategies they have acquired. Thinking and practising numeracy in the primary years builds transferable skills of critical thinking, communication, and collaboration. Being numerate helps people make sense of the world, including in daily living activities like telling time, travelling, setting the table, cooking, and playing sports. Numerate individuals feel confident in their understanding of mathematics; they can draw on their knowledge and apply it as necessary.

#### Numeracy in the primary classroom

Numeracy understandings grow naturally from children's explorations. Their spontaneous play can be numeracy-based: counting, sorting, measuring, and comparing are part of many games and activities children take part in both inside and outside the classroom. In the primary years, teachers can encourage and take advantage of naturally occurring play – to "mathematize" the explorations of numbers, spatial awareness, and patterns that children willingly seek out in their free time, their classroom time, their outdoor play, and their interactions with other children.



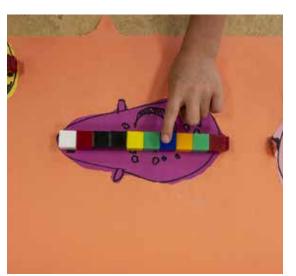
Teachers can help students' explorations grow by modelling their thinking and encouraging students to speak metacognitively. An example is thinking out loud: "I wonder how tall you are in a count of blocks? You could lay the blocks end to end to find out. Is there another way you could measure yourself?" Play-based experiences like these are authentic and positioned at children's developmental levels.





#### The Mathematics curriculum

The goal of mathematics and numeracy teaching and learning in the primary classroom is for all learners to develop competence and confidence in these areas. Mathematical competence is meant to support children who can confidently approach a problem, draw from various strategies, assess the best one for the task, and fluently apply the skills necessary to promote and hone conceptual understanding. Children who embody these aspects are better able to think mathematically throughout their lives, confidently exploring ideas and fluently moving between various strategies. When developed early in life, mathematical concepts and numerate habits of mind help children see the math in the world around them and help them gain confidence in their ability to solve everyday problems without doubt or experiencing fear of math.





The Big Ideas to understand in primary mathematics are shared across grades. This consistency allows teachers to structure tasks and lessons that include all learners in meaningful explorations of numeracy, whether teaching in a single-year or a combined-grade classroom.

Number sense is what many people think of as math. It encompasses an intuitive sense of number, and the ability to estimate reasonably using referents and to describe and make connections with how to use quantity in the world. Children with number sense and computational fluency understand that addition is the act of joining, and subtraction is the act of removing. They have flexible strategies, such as skip counting, using place value, or splitting, for composing and decomposing quantity. Children with number sense



can apply whole number strategies for mathematical operations. They understand that while comparing occurs, attributes of length, height, area, mass, capacity, and volume can all be measured.

Students use concepts of geometry to help describe the physical world – the names and attributes of shapes and using pictures, diagrams, and graphs to represent objects and ideas. They understand that when they measure, they compare against a known standard.

The data and probability key concept houses other concepts like financial literacy. Many connections with cross-curricular learning opportunities and with authentic, relevant learning can be drawn from this key concept.

Constructing learning opportunities around mathematics Big Ideas allows students to explore and access what's important to know. Incorporating ways of teaching and learning such as play, collaborative learning, and reflective thinking integrates a sense of joy and wonder in the classroom, giving students the opportunity to develop and practice numeracy across the curriculum.

Sorting is based on the concept of the attributes of an object being identifiable. Sorting involves grouping items according to physical characteristics (e.g., colour, shape, size), by location or purpose (e.g., things found outside, things for cutting), or by species (e.g., animals, people). Sorting attributes extends from three-dimensional objects to ideas and concepts. Of course, the more attributes considered, the smaller the groups become.

Patterns repeat and children learn to recognize them and create their own. When making a pattern, children identify and describe, and then mimic in order to build the patterns themselves. Elements are sorted by their attributes and the pattern core repeats. What comes next can be predicted by describing a pattern core. Increasing patterns grow in predictable ways, which is the foundation for skip counting and multiplicative thinking. This key concept is one of the foundations for growing number sense through skip counting and algebraic thinking.

Patterns are not limited to material objects. They present themselves in many ways; the seasons, weather and temperature, hours of daylight are all examples of identifiable patterns. They can be viewed in connection with seasonal movements of animals and availability of resources. These concepts are an important part of land-based knowledge, as similarities and differences within holistic interconnections of patterns are recognized.

Constructing group tasks with these essential ideas allows everyone in the classroom community to explore and access what is important to know. In addition, having children share their thinking in a "debrief" promotes communication and allows them to hear a variety of approaches and strategies.







Children need materials to explore, count, and build things. The best classroom materials allow for exploration of a range of mathematical concepts.

#### Promoting daily math

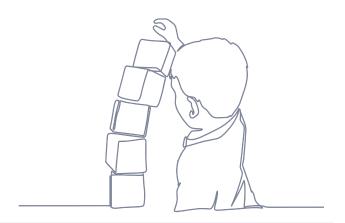
Doing math every day ensures that children are constantly engaged in mathematical and numerate thinking. Children should be asked to develop and practise skills like counting, sorting, building, and comparing, and to apply these skills through problem-solving. As teachers know from their literacy practice, children in the primary years need a broad range of experiences in both open-ended and guided tasks in order to progress. They need exposure to, and practice using, concepts and skills, strategies and approaches, and ways to communicate and reflect on their thinking.

We learn to read by reading. We learn to 'math' by 'mathing.' Let them loose! Trust their capacity – and set high expectations."

(Fullerton, 2022)

Teachers sometimes worry about children as they struggle to work through a problem. The inclination is to jump in and "rescue" a learner to save them from feeling incompetent, but this space of struggle is where learning happens.

# Something to think about



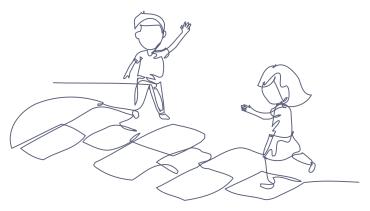
#### Using manipulatives

When children are playing with manipulatives and exploring collections, consider asking the following questions to engage them in and help them develop mathematical and numerate thinking:

- ◆ Estimating and counting How many do you think there are? How do you know? How could you find out? Which set is more? Which is less? How do you know? How could you figure it out?
- ◆ **Sorting and classifying** How are these alike? How are they different? Which ones belong in a group? Which ones don't? Why?
- ◆ **Measuring and comparing** Which is smaller? Which is bigger? Would it fit in your hand? Your pocket? Your backpack?
- ◆ Length What can you find that's as long as your pencil? Your arm? Your leg?
- ♦ **Volume** Which holds more? How much more?
- ◆ Physical properties How far do you think it will roll? How could you figure it out? How fast can it go? How long will it take? Would it fit in your hand? Your pocket? Your backpack?
- ◆ **Patterning and predicting** What comes next? What comes before? What's missing? What's the smallest piece of your pattern?



# Something to think about



#### Suggested learning strategies

The following numeracy learning strategies are intended to stimulate ideas and discussion among teachers, early childhood educators, support staff, children, and parents.

Numeracy is evident when children:		Teachers promote numeracy when they:		
•	Take on roles using numeracy in a variety of play activities	*	Design learning environments to engage children in a range of activities accessible to all abilities, language, and experience	
•	Use symbols in play and begin or continue to make meaningful connections in seeing patterns in their feelings, ideas, words, and materials	*	Provide children with access to a variety of everyday materials they can use to create patterns and sort, categorize, and compare them	
*	Begin and continue to make patterns and sort and categorize materials in nature	*	Take children outside to create, sort, and see patterns in nature	
*	Use symbols in play and written work to represent and make meaning	•	Provide children with opportunities to engage in patterns in movement such as dancing, clapping, and singing	
*	Develop skills in recognizing, sequencing, and predicting, and draw on memories of sequences to complete tasks and numeracy activities	•	Engage children in discussions about symbol systems, such as letters, numbers, time, money, and musical notation, and in different languages	





#### **BC Learning Pathways**

Teachers balance planning, teaching, and classroom assessment among other daily activities. The time it takes to prepare learning opportunities that reflect the needs of all students, support competency-based learning, and incorporate cross-curricular literacy and numeracy learning opportunities in the classroom is significant. Fortunately, literacy and numeracy skill development is already taking place in classrooms.



Teachers also design learning opportunities that allow students to demonstrate key literacy and numeracy skills, like critical thinking and analysis, problem-solving, and different forms of communication, including oral, written, visual, and digital, in diverse and meaningful ways.

BC Learning Pathways: A Guide for Teachers can help teachers be more **intentional** with their planning, teaching, and assessment of these core literacy and numeracy skills. When developing a lesson or activity, teachers can intentionally plan assessment opportunities to provide students with beneficial feedback and support their ongoing learning and growth.

#### BC Learning Pathways connections

*BC Learning Pathways: A Guide for Teachers* provides an overview of the resources, their intent, and how to purposefully incorporate literacy and numeracy learning opportunities into teaching practice.



In our journey to adapt and modify provincial curriculum to include an Indigenous perspective, teachers can 'come to know' the knowledge, wisdom, metaphors and practices of Indigenous peoples. Teachers can see themselves as representing different worldviews and cultural constructions from within their worlds. We must be open to seeing the limits of our own boundaries of knowing. 'Coming to know' in the Indigenous world is about utilizing the wisdom and knowledge gained by ancestors. It is approaching each task with an open and kind mind, heart, and spirit."

(Snively and Williams, 2016, pg.43)

BC Learning Pathways is designed to support teacher fluency in identifying what student proficiency in literacy and numeracy can look like across grades and learning areas. The resources support teachers' planning processes with examples of how to design lessons, activities, and assessments to intentionally develop cross-curricular literacy and numeracy skills that support the learning standards found in the K-12 curriculum.

Through their work in describing the K-12 Learning Progressions of proficient critical thinking and communication competencies, the teacher development team understood that in order to assess these competencies more purposefully, teachers first plan opportunities for students to develop, practice, and demonstrate these skills.

The K-12 Learning Progressions were developed by teachers from all learning areas and grades to ensure that they are cross-curricular. The progressions can be used to design a unit, lesson, or activity focusing on students' critical thinking and/or communication competencies while aligning with the curriculum. For example, teachers can select an aspect and corresponding sub-aspect(s) from the K-12 Learning Progressions and focus on developing that skill or those skills with their students.

From there, they can review the <u>Curricular Connections</u>, a set of learning opportunities developed by teachers, for examples of lessons or activities that align literacy and numeracy with the curriculum.

Strategies for supporting literacy and numeracy learning			
Literacy		Numeracy	
Concept	Instructional examples	Concept	Instructional examples
Print, letter, and word recognition	<ul> <li>Students can:</li> <li>◆ Independently or in a group, play games and puzzles involving letters</li> <li>◆ Do a book scavenger hunt where they look at different letters, words, and features of text</li> <li>◆ Create their own letters, words, and full texts</li> </ul>	Number sense	<ul> <li>Students can:</li> <li>Count a large group of loose parts by sorting them into smaller groups of 10s and 1s</li> <li>Physically skip count forward and backward using a giant number line</li> <li>Identify situations where a quantity must be expressed as a fraction (e.g., pieces of pizza for sharing)</li> </ul>
Text comprehension	Students can:  ◆ Listen to a story and predict what is going to happen next  ◆ Make connections between text, self, and other works (e.g., connect the colours used in a picture book to show emotions)  ◆ Identify facts and opinions in a news article	Computational fluency	Students can:  ◆ Create multiple equations to equal a target number  ◆ Use different strategies to add and subtract, such as using a traditional algorithm, splitting, making 10, or using fact families  ◆ Use different strategies to multiply and divide, such as drawing an array, repeated adding or subtracting, or using fact families

Strategies for supporting literacy and numeracy learning			
Literacy		Numeracy	
Concept	Instructional examples	Concept	Instructional examples
Vocabulary	<ul> <li>Students can:</li> <li>◆ Engage in dramatic play</li> <li>◆ Be exposed to high-level language through conversations and books</li> <li>◆ Try to use synonyms in speaking and writing</li> <li>◆ Do dictionary or thesaurus scavenger hunts</li> </ul>	Geometry and measurement	Students can:  ◆ Do a nature scavenger hunt to find and measure objects using referents, and nonstandard and standard units  ◆ Conduct a simple poll (e.g., waffles versus pancakes) and create a pictograph using stickers or stamps to represent the results  ◆ Create regular 3D objects out of clay and slice them to visualize the corresponding 2D shape
Phonemic and phonological awareness	Students can:  ◆ Clap out the sounds of words  ◆ Explore books, songs, and rhymes that play with letters and sounds, including alliteration  ◆ Independently, or in a group, play games with sound/phonics cards	Patterning	Students can:  ◆ Explore and create codes for patterns, such as in mandalas, poetry, and songs  ◆ Identify and describe increasing patterns in nature, such as the Fibonacci sequence

Strategies for supporting literacy and numeracy learning			
Literacy		Numeracy	
Concept	Instructional examples	Concept	Instructional examples
Development of ideas	<ul> <li>Students can:</li> <li>◆ Create an imaginary animal with physical features that helps it survive in a habitat</li> <li>◆ Work together collaboratively to create a field game, including rules and boundaries</li> <li>◆ Use graphic organizers for brainstorming</li> </ul>	Data, probability, and financial literacy	Students can:  ◆ Play games using dice, counters, cards, random draws, or coin flips to build understanding of chance and probability  ◆ Identify a financial goal and make a plan to earn money (e.g., recycling, doing chores)  ◆ Collect weather data, such as measuring rainwater with a cup and a ruler, and recording the measurement on a graph
Word patterns (orthographic knowledge)	Students can:  ◆ Collaboratively, as a class, create a word and/or sound wall (e.g., vowel valley)  ◆ Build words out of magnet letters or cards  ◆ Receive direct instruction in grapheme-phoneme correspondence	Interpretation of the numeracy situation	Students can:  ◆ Identify attributes, sort, and record information in a Venn diagram  ◆ Watch a sport and determine the parameters, such as scoring, processes, and rules

Strategies for supporting literacy and numeracy learning				
Literacy		Numeracy		
Concept	Instructional examples	Concept	Instructional examples	
Application of understanding	<ul> <li>Students can:</li> <li>◆ Choose a book appropriate to the topic and their reading level when researching a question</li> <li>◆ Learn about different role models in the community and identify their positive character traits</li> </ul>	Application of mathematical understanding	<ul> <li>Make their own plan for recording measurements or observations (e.g., tallies, numerals)</li> <li>Explore ways of saying numbers in different languages (e.g., quatre-vingts in French [four twenties = eighty], shí wǔ in Mandarin [ten five = fifteen], 'apun 'i' kw' xu'athun in Hul'qumi'num [ten and four = fourteen]) to build understanding of composing and decomposing number</li> </ul>	
Decoding	<ul> <li>★ Explore decodable books</li> <li>♦ Play with language by orally blending and segmenting phonemes in words</li> <li>♦ Explore CVC and CCVC/CVCC words in play and direct instruction</li> <li>♦ Try build-a-word activities where they are given a word (e.g., heat) and they have to add prefixes and suffixes to create a new word (e.g., reheat)</li> <li>♦ Do word ladder activities</li> </ul>	Problems and solutions	<ul> <li>▶ Estimate the cost of a favourite snack and visualize multiple ways to pay for the snack using different combinations of coins</li> <li>♦ Estimate the number of steps and/or amount of time needed to travel between two local landmarks, by measuring the actual distance and comparing it with their initial estimate</li> </ul>	

Strategies for supporting literacy and numeracy learning			
Literacy		Numeracy	
Concept	Instructional examples	Concept	Instructional examples
Sentence structure	Students can:  ◆ Tell oral stories and play fill-in-the-blank oral language games  ◆ Create their own texts  ◆ Build sentences with word cards or magnets, including punctuation  ◆ Engage in readers' theatre	Reasonableness of the approach	Students can:  ◆ Solve the same equation using different methods (e.g., traditional algorithm, using a number line, or using place value) and discuss the best approach for the equation
Communication	Students can:  Label maps of their school, neighbourhood, or community  Recall and retell a story or a memory  Write a letter to a friend or family member	Communication	Students can:  ◆ Propose a fundraiser to their class, describing how they will earn enough money by pricing a service or a product, and how many they must sell to reach their goal  ◆ Use a scale to weigh objects in the classroom and create a poster that helps communicate referents of mass

## Engagement with families, parents, guardians, and community

#### Why does engagement matter?

Families are their children's first teachers, their caregivers, and the holders of knowledge about them. While families have the most crucial role in developing their children's well-being and learning, an African proverb reminds us that "it takes a village to raise a child."

More than any other single concept, it is the notion of respect for all life forms and the land itself that characterizes Indigenous belief systems."

(Snively & Williams, 2016, p.38)

Recognizing Indigenous knowledge and respectfully seeking collaborative partnerships with Elders and knowledge holders in the community enhances children's learning and growth and is an example of what is possible when people connect and work alongside others who care for – and about – children. Establishing healthy, collaborative relationships means rooting one's work with families and community in the traditional values of listening, mutual respect, speaking from the heart, co-operation and acting with kindness.

Cross-sectoral community partners (e.g., government and non-government agencies, municipal and regional governments, and local First Nations, **Métis**, and **Inuit**) also play essential roles in supporting communities. By working with these partners, schools and districts can identify community needs by assessing existing strengths and assets, consulting with families, seeking input from other partners, identifying needs or gaps in programs and services, and collaborating to plan a cohesive range of programs and services to better support children and families.

The University of British Columbia's <u>Human Early Learning Partnership</u> (2019) points out that "many of our children are falling behind in their earliest and most formative years." To improve outcomes, it suggests using a collective approach that recognizes complex challenges, reflects the diversity of experiences throughout the province, and focuses on building on existing strengths. Further, it states that "researchers have found that the key to making the family-community-school relationship a success is by considering it a partnership of equals where [teachers, early childhood educators,] and families from all backgrounds are seen and valued as experts in a child's education and community members are viewed as helpful contributors and supporters of schools."







#### Building a partnership of equals

There are many ways to make parents, guardians, and families feel welcome and valued during their children's primary years. By offering a variety of learning experiences, both relationship-building and capacity-building, schools increase the likelihood of collaboration and growth. Adults in schools respect the roles that parents, guardians, and families have in their children's learning.

Teachers work closely with families and community partners to identify goals to improve children's outcomes and support enhanced communication and coordination of services focused on supporting children and families. In addition, teachers work with a broad range of community partners to help build a shared understanding of how various systems and organizations work to support children and families, identify assets and opportunities across the community, and help to monitor the impact on child outcomes.

People of all ages connect and reconnect through land, culture, community, and place. Children develop a sense of place when they connect with their local communities and environment. Likewise, learning is "of a place" when children, teachers, and early childhood educators engage with local histories with respectful curiosity and a desire to contribute and share.

Recognizing Indigenous knowledge and respectfully seeking collaborative partnerships with Elders and other knowledge holders in the community enhances the learning and growth of children.



# Something to think about



#### Supporting family engagement

Ways in which teachers and early childhood educators can help lay a foundation that supports family engagement include:

- Getting to know families early in the school year with activities such as family nights, welcoming conversations, and **gradual entry**.
- Building on strengths while employing trauma-informed practice to support those with diverse experiences.
- Having and showing empathy, which sets the stage for a healthy, productive relationship.
- Addressing and removing barriers to engagement.
- Sharing classroom goals and expectations and inviting input.
- Providing opportunities for families to connect with the school to share their interests and talents.
- ♦ Holding family and child-led cultural celebrations.
- ♦ Having informal and formal conversations and child-led conferences, beginning with positive check-ins and updates.

#### Supporting community engagement

Ways in which schools can support collaborative community capacity include:

- Inviting families to engage with local histories while encouraging respectful curiosity and a desire to contribute and share.
- Participating in or arranging for parent/guardian education-related events (e.g., drawing on expertise from family/community members, such as a multicultural cooking series).
- Engaging classroom helpers.
- Leading fundraisers for community-identified purposes (i.e., local or global needs).
- Inviting community partners into classes and schools to share and learn from each other.
- Implementing community spirit events that invite engagement from the broader community including cross-sectoral partners.



Part 2: Connecting learning and teaching practices



Focused, purposeful activity is essential to both teaching and learning. Teachers' practices are dynamic and complex and involve multiple, diverse, and everchanging relationships. There is no "one size fits all" way to teach. Instead, teachers' decisions about practice are often determined in relationship with families, children, communities, legislation, policies, places, ideas, materials, and history.

### Lenses for viewing learning and teaching practices

Looking at learning and teaching practices through different lenses can help teachers reflect on their teaching and consider how different approaches may affect the learning experiences of individual children in the classroom.

Teachers' practices are dynamic and complex and involve multiple, diverse, and changing relationships.

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#### Gradual Release of Responsibility

Guiding children toward independence as learners is an important goal for teachers. The teacher views the child as capable, competent, and a co-contributor to learning. The Gradual Release of Responsibility model provides explicit instruction, moving children toward independence while recognizing and honouring their unique strengths and goals. According to the model, cognitive work shifts gradually and intentionally from teacher modelling to shared responsibility between teacher and child, and then to independent practice and application by the child. The model moves children toward independence – from the responsibility for learning residing with the teacher, through shared responsibility, to the responsibility residing with the learner.



not feeling. Neither is it exerting tight control over what we feel. And it's not about banishing negative emotions and feeling only positive ones.
Rather, emotion regulation starts with giving ourselves and others the permission to own our feelings – all of them."

(Brackett, 2019, p. 36)

#### Managing emotions

Managing emotions is critical to a child's healthy development, and it begins with young children being able to recognize and understand emotions.

As children learn, they acquire knowledge and skills and, most importantly, attitudes toward what they are learning and who they are as learners. People remember and learn more effectively when strong emotions are attached to a learning situation. Indeed, the emotional component of the learning experience tends to strengthen connections made by learners. In the primary years, children are pursuing topics of personal interest; they ask questions, solve problems, reflect on their thinking, and gain increasing confidence. They also experience the joy of learning.

Many of the strategies included in this resource are at the heart of Indigenous pedagogies. The <u>Indigenous</u> <u>knowledge and pedagogy webpage</u> from Simon Fraser University includes more information.

#### Engagement in meaningful experiences

Children become engaged in an activity when they find it meaningful and purposeful. Intrinsic motivation is essential to engagement. When motivated and curious, children maintain engagement, attention, focus, and persistence even though the activity may be challenging. To be engaged, learners must recognize the activity's value and their own potential for eventual success.

Children
become engaged
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purposeful.

The arts provide a powerful invitation to children to engage in meaningful activities. When children engage in dance, drama, music, or the visual arts, they express and communicate personal responses to an idea. Children can learn and express their learning through the arts in all curriculum areas. The arts invite children to learn through all their senses. As described in the Core Competencies, the arts provide a valuable avenue for engaging children in creative thinking and problem-solving. The arts can also enhance children's confidence in their expressive abilities.

Observing and expressing in visual arts builds an essential bridge to reading and writing. Drawings and paintings allow children to express themselves creatively, tell personal stories, and make connections with language. In addition, enhancing children's awareness of patterns, lines, and symmetry in various art forms helps them appreciate the aesthetic dimension of math and fosters their numeracy learning.

Because the arts are intricately related to culture, learning through and about the arts helps children develop an awareness of their own and others' cultures.

Representing is an opportunity for discovery as children manipulate their ideas and feelings and play with their thinking. When they have completed a representation, children have something concrete to reflect on and assess. They become their own audience. They can look beyond the surface features to see that representation is more than decoration and to develop increasing competence in showing what they know. Representing does more than reflect what is in the mind of the learner. It is an essential tool for activating the learning process and creating meaning. When they have completed a representation, children have something concrete to reflect on and assess.

#### Flexible learning environments

Loris Malaguzzi, an Italian early childhood educator and founder of the Reggio Emilia Pedagogical Project, defined the environment as the third teacher. Malaguzzi's third teacher is a flexible environment, responsive to the need for teachers and children to create learning together. Fostering creativity through the work of young hands in activities such as manipulating objects or making art is key to a responsive environment that reflects the values we wish to communicate to children. The importance of the learning environment must be considered in shaping the experiences of children and adults. The classroom environment is a powerful player that can help shape a child's identity in their own life and the lives of others.

Children and adults live and learn in relationships with the people around them but are also profoundly affected by their relationships with environmental elements: learning environments are made up of three elements: space and place, materials, and time.



#### Space and place

The arrangement of structures, and of objects in space in a learning environment – both indoors and outdoors – sends messages about how people can move through the environment and relate to others within it. A collection of spaces can invite small and large-group instruction, inspire collaborative learning, celebrate diversity, and invite children to explore and express their identities and cultures. When teachers notice how space is accessed, they can respond with creativity, providing spaces that



will open possibilities for children to extend their thinking and experiment with new ways of being.

Learning is not limited to any one place or location. Learning happens wherever the child is, and "place" is any environment, locality, or context with which people interact to learn, create memory, reflect on history, connect with culture, and establish identity. The connection between people and place is foundational to

It is the spirit of a place... that makes it most memorable, that expands our sense of possibility and puts us in touch with what is most loving, creative, and human about ourselves."

(Anita Rui Olds, quoted in Frohlich, 2014)

Materials... can evoke memories, narrate stories, invite actions, and communicate meanings. Materials and objects create meeting places. In early childhood education, we gather around things to investigate, negotiate, converse, and share. Materials – a block of clay, pots of paint, a brush, a colourful wire, a translucent sheet of paper, a rectangular block- beckon and draw us in. Materials are not immutable, passive, or lifeless until we do something to them; they participate in our early childhood projects. They live, speak, gesture, and call to us."

(Pacini-Ketchabaw et al., 2016, p.1)

Indigenous Peoples' worldviews and is at the heart of Indigenous pedagogies.

#### Materials

Different materials (such as manipulatives, objects, and art supplies) that children encounter invite different kinds of participation and engagement. Some materials are limited in how they can be used, while others open many possibilities for experimentation and lively interaction.

Open-ended materials, sometimes known as "loose parts," can be natural materials that are found or manufactured. They can be taken apart, moved around, and used in many ways. Open-ended materials include things like rocks, shells, cones, small driftwood, buttons, feathers, blocks, popsicle sticks, pipe cleaners, log rounds, sticks, beads, pom-poms, and flowers. These types of items encourage children to be creative and use their imagination: a rock can be a rock, a fence, a person, or an animal - whatever the child playing with it wants it to be. These materials can be used on their own, or they can be combined with others that are similar or different.

Across the curriculum, open-ended materials can be used for counters in addition and subtraction, for counting collections, and for organizing, sorting, and patterning. They can be used to encourage children to create scenes or stories to inspire their writing. They can also be used to create exciting playscapes. Their uses are limited only by the imagination.





#### **Time**

How time is organized can dramatically affect the ways in which children and adults engage with one another and the kinds of play and learning they engage in. Designing schedules that minimize transitions and create long periods of uninterrupted time allows children to develop ideas and pursue inquiries, and allows adults to spend time alongside children, observing, noticing, and co-researching.

Pedagogical choices include the plans, materials, and provocations teachers choose in their daily practice with children. Choices and experimentation can lead to further **documentation**, reflection, continued collaborative dialogue, new links to theory, and new and more choices in practice. Teachers and children can generate new ideas or try different materials or processes while remaining open to other possibilities.

#### Place-based learning

Place-based learning connects children with their community and the world around them and allows them to learn from their environment and reconnect with the land. Place-based learning is an evolving, cross-curricular instructional approach that emphasizes learning directly from the local community or region (Woodhouse & Knapp, 2000). Place-based learning is essential to Indigenous pedagogies.

David Sobel has contributed significantly to the development of place-based education in the United States and Canada. He defines place-based learning as "the process of using the local community and environment as a starting point to

teach concepts in language arts, mathematics, social studies, science, and other subjects across the curriculum" (Sobel, 2004). In practice, it is about emphasizing hands-on, real-world learning experiences. This approach to education increases academic achievement, helps children develop stronger ties to their community, enhances children's appreciation for the natural world, and creates a heightened commitment to serving as active contributing citizens. Community vitality and environmental quality are improved through the active engagement of local citizens, community organizations, and environmental resources in the life of the school (Sobel, 2004).

Teachers can reflect on practices that enrich and deepen children's relationships with place, land, and community. With their boundless imaginations and sense of adventure, children will be the leaders and innovators who will inherit and recreate our societies in the future.

Land-based learning also includes the connections and relationships to children's community and the world around them. Land-based learning often uses an Indigenized, environmentally-focused approach emphasizing the deep connections to the land inherent in Indigenous cultures. Opportunities for Indigenous land-based learning includes building on existing knowledge by working in partnership with First Nations, Metis and Inuit knowledge keepers. It brings together children and Elders so they can pass on local knowledge and teachings and support children in developing environmental awareness and connections to the land.

#### Nature play

Children who play outside are happier, more attentive, and less anxious than those who spend more time indoors. Playing in nature stimulates all the senses, promoting a richer understanding of the world; it inspires endless curiosity and wondering beyond the limitations of indoor environments. Experiences in nature build confidence and encourage creativity and imagination, as well as having positive effects on mental health and well-being. Nature teaches about responsibility and reduces stress and fatigue. At the same time, playing in nature promotes physical activity. It gets children moving!



Imogene Whittle (2016) defines nature play as "any activity that gets children active or thinking actively outdoors, with the goal of building skills and ability to play without the need for parental or adult control. This can be in any setting, so long as it is outdoors." Navigating green spaces teaches children about environmental appreciation and stewardship.

#### Reflection

Reflection is a critical element of emotional intelligence. It also helps children develop remembering, questioning, explaining, and sharing skills, which are essential both in school and in life.

Children learn critical and creative thinking strategies and skills through group reflection guided by the teacher.

Problem-based learning provides children with opportunities to develop, use, and refine the tools of critical thinking, which include:



- Background knowledge, the information needed for thoughtful reflection
- Criteria for judgment
- Strategies and organizing devices
- Attitudes and values of a careful thinker



Metacognition encompasses the ability to reflect on our performance – to know what we know, do not know, and need to know to complete a task – and involves both self- and co-regulation – the ability to plan, monitor success, and correct errors when appropriate. Talking about learning helps to shift knowledge from the unconscious to the conscious realm.

Children learn about their thinking through discussion, then internalize the reflective talk with others as self-talk. Talking about learning helps to shift knowledge from the unconscious to the conscious realm. Children need opportunities to verbalize their thinking both to themselves and to others. Having the freedom to "think out loud" when they are learning to do new things helps them learn more effectively. They also benefit from discussing their learning during and after engaging in activities.



#### Authentic assessment

The fundamental purpose of assessment is to support and improve children's learning. Curriculum, instruction, classroom assessment, and the communication of student learning are interconnected. The curriculum sets the learning standards, which inform and inspire classroom instruction and meaningful learning experiences for students.

**Authentic assessment** involves the wide variety of approaches teachers use to describe and evaluate student learning in relation to the provincial learning standards. Thoughtful, responsive, and meaningful communication about student learning provides students, parents and guardians with a clear understanding of where students are at in their learning and helps set goals for future learning.

Authentic assessment recognizes the diversity of learners. Teachers gain insights into what and how individual children learn through observation and conversation. Documenting some of these observations to reflect on and analyze them, and using them over time can provide important insights about children's learning. Collecting samples of work, documenting conferences, debriefing and documenting children's self-assessments, and capturing performances and representations can provide essential insights into children's learning.

#### **Communicating Student Learning Connections**

Find <u>more information</u> on communicating student learning and the K-12 Student Reporting Policy on the <u>Ministry of Education and Child Care website</u>.

Strengths-based approaches to assessment are child-centred and emphasize improvement and progress. There is a link between teachers' assessment processes and children's motivation to learn. When feedback and assessment are strengths-based – that is, when they emphasize progress and achievement - children gain agency; they are empowered and motivated to keep learning. They also learn to take responsibility increasingly and use assessment feedback to direct their learning. This develops the selfassessment skills that enable them to assess their learning, set appropriate learning goals, and identify the next steps for their learning.

Collaborative assessment is where teachers invite other perspectives on children's learning from all those who regularly work with them. Having several people ask children about their learning helps teachers gain insights into what might not otherwise be available. Teachers may also want to seek advice from other educational professionals. A team approach to assessment and evaluation is valuable. Parents and guardians may also participate in the process to give teachers another perspective.

Clear criteria can make evident what children are expected to do. Building the criteria collaboratively ensures that children understand what is expected of them.

The process of **co-constructing** criteria and then using them helps children develop a shared understanding of success.

Self-assessment is a natural extension of reflection. Children learn by trying things out in various situations, reflecting on what works for them, and monitoring and adjusting where necessary. Encouraging children to reflect on their actions, ideas, and creations enables them to further their learning. As children self-assess and clarify and use criteria on an ongoing basis, they will discover strengths they can build on and possibilities for further learning or inquiries. In this way, reflection helps them expand and refine their repertoire of learning strategies.

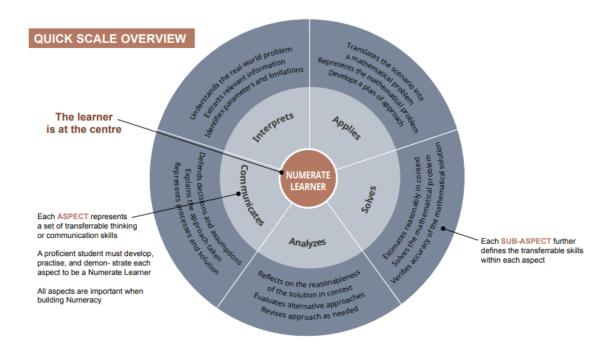
# Assessment using BC Learning Pathways

Learning experiences should reflect the needs of all students, support competency-based learning, and weave literacy and numeracy learning through all learning areas. Making space for students to demonstrate key literacy and numeracy skills, like critical and analytical thinking, problem solving, and different forms of communication (e.g., oral, written, visual, digital), in diverse ways will encourage students to engage with their learning continuously and meaningfully.

The K-12 Learning Progressions support teachers not only in their planning and teaching but also in their classroom assessment. If a learning experience has been intentionally focused on the literacy and/or numeracy gradeappropriate aspect(s) and sub-aspect(s), teachers will be able to assess these skills in connection with the learning standards. (For more information, see the Curricular Connections.)

For example, when focusing on literacy, a teacher may choose an age-appropriate aspect and sub-aspect, such as "extracts ideas and information." The teacher will then design a learning experience where students work through an oral, written, visual, or digital text and extract salient ideas and information. Partway through the learning experience, the teacher may provide formative descriptive feedback to students on their strengths and areas of growth in terms of extracting information, as outlined in the proficiencies in *BC Learning Pathways*.

This responsive process benefits both students and teachers. Understanding whether students have learned what they need to before moving forward can be a challenging aspect of teaching. Using formative assessment throughout learning experiences helps ensure that teachers can plan their instruction effectively, and that students have the critical information they need about where they are and where they are headed.



The Quick Scales provide a snapshot of literacy and numeracy learning, organized by grade. The circle format represents multiple entry points, that each aspect is of equal value for the learner, and that learning is ongoing.



## **Documenting learning**

Loris Malaguzzi (1994) argued passionately for seeing the child as "rich in potential, strong, powerful, competent, and most of all connected to adults and other children," believing that the child "is very intelligent, that the child is strong and beautiful and has very ambitious desires and requests. This is the image of the child that we need to hold. Instead of always giving children protection, we need to give them the recognition of their rights and their strengths." Moreover, as Malaguzzi reminded teachers, this image of the child is where our teaching should begin.

### Early Learning Framework connections

B.C.'s *Early Learning Framework* elaborates on the principle that children are strong, capable in their uniqueness, and full of potential.

#### The pedagogy of listening

The **pedagogy of listening** refers to the fact that teachers listen to the incredible range of children's expressions and what children bring forward that may never have been heard before. This is an essential component of Indigenous pedagogies. Gesture, silence, movement, gaze, and stillness, along with materials, objects, light, and sound, and how these elements are interrelated, all impact each other as they circulate within a space and a time, and all make up a part of the whole. In this sense, listening is letting go of what we thought we knew to open ourselves to something new.



#### Pedagogical narration

**Pedagogical narration** (also known as pedagogical documentation or learning stories) is a process of noticing and collecting episodes or moments from either daily practice or long-term inquiry projects and sharing these with colleagues, children, and families. This makes children's processes and inquiries and teachers' pedagogical choices visible and open to interpretation and reflection. Pedagogical narration is practiced across multiple ages and grades.

#### Early Learning Framework connections

Pages 51–58 of B.C.'s *Early Learning Framework* describe pedagogical narration.









Pedagogical narration involves recording the ordinary moments of children's play through photos, video, or transcribing. It is a tool that allows us to reflect on the theories and strategies children develop, the way social relationships are explored, and the constant process of "making meaning" that children undertake.



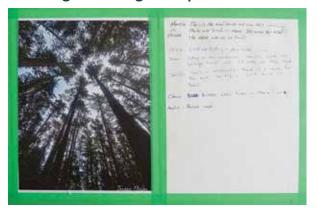
#### How to use pedagogical narration

Here are some things to consider as you create a pedagogical narration:

- Think about design. What do you want the viewer to see? How can you best tell the story? Many overlapping images, printed borders, and multiple colours will likely need clarification for the message to be understood.
- Ask yourself: What is the learning I want to make visible?
- Focus on some aspect of learning, not just "what we did." This may be the child's learning, or it may be your own learning.
- Think about moving away from an image of the child as cute and moving toward competence. Is this shift evident in your presentation of a narration?
- A pedagogical narration asks questions and is reflective (e.g., how does this moment challenge preconceived assumptions? How does my image of the child impact how I view this moment? What theories is the child building?)
- ◆ A narration may focus on processes rather than outcomes, it may highlight thinking or relationships rather than a project.
- ◆ Your voice is important. How did you feel? Were you surprised by something? Did this moment make you feel uncomfortable, or did it give you pleasure?
- What happens next? What are the next steps you might take to expand on this moment? For example, can you document more of this process? How? Would a different medium, such as video or tape recording be beneficial?

(Adapted from Atkinson, 2012)

#### Making learning and practice visible



Pedagogical narration is much more than a tool for recording and planning pedagogical choices. Discussing pedagogical narrations makes children's learning visible and brings forth many interpretations, voices, and possibilities. Engaging in this process can show the complexity of practice and open ways to see and think differently.

There are many ways to approach pedagogical narration, whether by capturing "ordinary moments" or through longer-term inquiry projects. How teachers choose to document children's thinking, play, and learning will depend on their personal experiences, comfort level (including with technology), the work they want to document, the questions that arise out of children's work, the children themselves, and the time and supports available.

## Continuity of learning

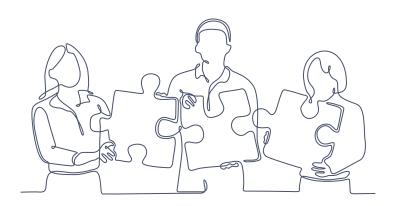
Children benefit from high-quality learning environments and experiences across settings and sectors from birth through the primary years. Teachers and early childhood educators can create a continuous path in education that begins in early childhood and continues seamlessly through the primary years and beyond by thinking of learning as a continuum starting at birth.

Continuity of learning refers to the consistency of children's experiences in their various education settings as they grow from birth to age eight. In the primary years, continuity can be addressed by aligning learning expectations, instructional strategies, assessments, and learning environments to ensure that they are coherent and grounded in the findings of research on child development and the resulting best practices in instruction.

Continuity of learning depends on early years educators and school-based teachers creating a comprehensive and aligned assessment system – this is essential across both early learning and school settings."

(Collins et al., 2022, p. 12)

# Something to think about



#### Continuity of learning requires:

- ♦ Continuing to develop relationships between early childhood educators and school-based teachers.
- Creating child-centred learning environments in both settings.
- ♦ Developing a shared mindset, consistency in values, and common teaching practices.
- ♦ Working toward curriculum continuity with the recognition that early cognitive, social-emotional, and physical competencies are built over time.
- Engaging in ongoing formative and summative assessment to work from where a child is.
- Working toward alignment in governance across the early years and primary years.



## Conclusion

As a closing reminder, this resource is the culmination of a collaborative process built on the original Primary Programs (B.C. Ministry of Education, 1990 and 2000), refocused to bring the ideas into today's context. Central to this process has been the acknowledgment that the Primary Programs have been, and continue to be, vital to primary educational practices for all educators, children, and families in British Columbia. Building a partnership of equals.



## Glossary

**agency:** Describes the capacity to set goals, reflect, influence events, make choices and decisions and act responsibly to impact one's world. "It is about acting rather than being acted upon, shaping rather than being shaped, and making responsible decisions and choices rather than accepting those determined by others" (OECD, 2019).

**assessment:** The process of noticing children's learning and development, recognizing its significance, and responding in ways that foster learning. It means documenting what children can do and how they do it to make learning visible.

**authentic assessment:** A form of assessment that measures children's skills and abilities by observing how children perform in real-life, everyday activities. It is carried out by observing and documenting children's play, their interactions with peers, and conversations with parents and other educators and professionals.

**Backward Design:** A process in which lessons and curriculum are designed by determining the final goals and outcomes first, then building the planned assessment and designing and creating the learning activities.

**children with disabilities and diverse abilities:** Children whose learning is supported through access to additional or specialized supports, services, and instruction. They may experience, or be at risk of, developmental delay or disability and may require support beyond what other children need.

**children with extra support needs:** Children who are experiencing, or at risk of, developmental delay or disability and who require support beyond that required by children in general. The developmental delay or disability may be in one or more of the following areas: physical, cognitive, social, emotional, communicative, or behavioural. In addition, children may be experiencing, or at risk of, developmental delay or disability due to neurobiological or social/environmental factors.

**co-constructing:** Learning in a social context, where children interact and work together in partnership with educators, other children, and materials. The approach emphasizes the importance of social relationships in children's early learning.

**co-regulation:** A process in which a person (the co-regulator) models, sits beside, and supports children in developing control of their emotions, behaviour, and attention. This is often done through a warm, calm, and caring tone of voice, modelling of behaviour and responses and providing an environment that supports children's emotional and physical safety. Co-regulation with peer support is when other children help co-regulate others with empathy and understanding. Both children involved benefit from the experience.

**colonial:** Characteristic of colonization, the action or process of taking control of people, land, and waters by an outside entity who then occupies the land, extracts its value, and dominates the people.

**constructivist:** Reflecting constructivism, which views learners as actively constructing their knowledge and understanding of the world through experience and reflection rather than passively receiving information. New information is linked to prior knowledge through experiential, inquiry-based, project-based, and other forms of active learning.

**Core Competencies:** A set of intellectual, personal, and social competencies that children develop to engage in deeper learning and support lifelong learning throughout their schooling. The Core Competencies are embedded in each area of learning and are activated through the learning experiences and activities. In B.C., the Core Competencies are Communication, Thinking, and Social and Personal.

**criteria:** Standards identifying the aspects of student performance that are assessed and evaluated. They guide what teachers look for when assessing or evaluating children's work or performance.

**culture:** The shared understandings that help groups of people make sense of their worlds and communicate with one another. Culture is a group's accepted values, traditions, and lifestyles that guide how people lead their daily lives.

**diversity:** The different beliefs, customs, practices, languages, behaviours, sexual orientation, gender identity and expression, and physical differences of individuals and cultural groups. Honouring diversity is based on the principle that differences that are recognized and celebrated benefit our communities. In addition, honouring diversity requires encouraging understanding, acceptance, mutual respect, and inclusion to make schools, communities, and society more equitable for all people.

**documentation:** A systematic strategy for collecting information on the behaviour, emotional responses, interests, abilities, and development patterns of an individual child or a group of children within a learning environment or aspects of that environment. Methods may include participant observation, portfolios, learning stories, developmental screening tools, checklists, anecdotal records, and daily recordings.

**early childhood educator:** A person certified by the B.C. government's Early Childhood Educator Registry. Early childhood educators must complete the basic early childhood education training program and meet the character and skill requirements outlined in the legislation. This includes an assessment of the individual's suitability to work with children. Depending on the level of certification, work experience hours may be required.

**educator:** An adult who works in early years settings, school-based settings, community-based settings, and post-secondary settings, including teachers. While it is acknowledged that many terms are in use and people may have preferences in terms of what they call themselves, in this framework the term "educator" refers to adults who work in these settings.

**First Nations:** The self-determined political and organizational units of the Indigenous community that have the power to negotiate with B.C. and Canada on a government-to-government basis. There are 615 First Nations communities in Canada, representing more than 50 nations or cultural groups and about 60 Indigenous languages.

**First Peoples:** First Nations, Métis, and Inuit peoples in Canada, as well as Indigenous Peoples worldwide.

**gradual entry:** Gradual entry to Kindergarten. It is not required by ministry policy, but the required hours of instruction are reduced to enable Kindergarten teachers to design a gradual school entry for all children, and especially for parents and children who have less experience in early years settings. (See B.C. Ministry of Education and Child Care: School Act – School Calendar Regulation.)

**growth mindset:** The understanding in an individual that effort, good instruction and opportunities, and persistence can lead to development of their talents and abilities.

**holistic:** Concerned with the whole child, rather than individual components. A holistic approach to early learning encompasses the physical, social, emotional, intellectual, and creative nature of a child.

**identity:** A person's sense of self. The Core Competencies describe positive personal and cultural identity as involving the awareness, understanding, and appreciation of the factors that contribute to a healthy sense of oneself; it includes knowledge of one's family background, heritage(s), language(s), beliefs, and perspectives in a pluralistic society.

**inclusion:** The practice of having children with diverse abilities and disabilities attend their neighbourhood schools or learning centres in age-appropriate, regular education settings, participating alongside their peers in all aspects of learning, where each student is supported to meaningfully engage, learn, and contribute to the learning community and culture. Specialized assistance and instruction, when required, are provided to each child within the regular education environment. Additional support may also be provided in a small group or individual setting.

**Indigenous:** Of or relating to the original peoples of North America and their descendants. The Canadian Constitution recognizes three distinct groups of Indigenous (Aboriginal) Peoples: Indians (referred to as First Nations), Métis, and Inuit. While the constitution uses the term "Aboriginal," "Indigenous Peoples" is increasingly being used instead of "Aboriginal peoples," in keeping with international agreements.

**inquiry:** A process through which children build their knowledge and understanding. Inquiry involves an active, open-minded exploration of a meaningful question, problem, or issue and requires children to justify their thinking, changing the discussion from "right or wrong" to "more or less justified." Inquiry can be structured depending on what teachers want children to learn or demonstrate. However, it should be scaffolded to match the children's background knowledge and abilities.

**intentional teaching:** A form of teaching that encourages educators to be deliberate, purposeful, and thoughtful in their decisions and actions. Intentional teaching is the opposite of rote or continuing with traditions simply because things have always been done that way.

**Inuit:** An Indigenous people united by a common culture and language. In Canada, most of the population lives in 53 communities spread across Inuit Nunangat, the Inuit homeland encompassing 35 percent of Canada's landmass and 50 percent of its coastline.

**learning space:** The environment (physical and cultural) created by educators within the program, classroom, and school community.

**mentor texts:** Books and other writing that model different writing styles to inspire and guide students to try out new strategies and formats of writing.

**metacognition:** Intentional thinking and reflecting on how one thinks, learns, and acts.

**Métis:** A person who self-identifies as Métis, is distinct from other Indigenous Peoples, is of historical Métis Nation ancestry and is accepted by the Métis Nation.

**pedagogical narration:** The process of noticing, collecting, and documenting moments from daily practice and sharing these with colleagues, children, and families to make children's learning processes and inquiries, as well as educators' pedagogical choices, visible and open to interpretation and reflection.

**pedagogies:** The methods and practices of teaching by exploring ideas and issues and creating environments where learning and thinking can flourish. With this understanding, education and pedagogy are not about learning facts but are concerned with ethical questions of living in the world together.

**pedagogy of listening:** An approach that involves paying attention to the incredible range of children's expressions and what they bring forward that may never have been heard before. It means suspending judgment and being open to difference.

**provocation:** An open-ended activity that doesn't have a prescribed outcome; it is designed to stimulate ideas, initiative and imagination for and among children, whether they choose to explore their ideas alone or in groups.

**reconciliation:** An ongoing individual and collective process that follows from engaging the truth of colonial histories. It is about establishing and maintaining a mutually respectful relationship between Indigenous and non-Indigenous peoples in this country. For reconciliation to happen, "there has to be awareness of the past, acknowledgement of the harm that has been inflicted, atonement for the causes, and action to change behaviour" (Truth and Reconciliation Commission of Canada, 2015, p. 6).

**self-assessment:** An ongoing process that involves students getting to know themselves and that requires them to engage in reflection, metacognition, and goal setting.

**self-regulation:** The ability to monitor and control emotions, behaviour, and attention.

**social and emotional learning (SEL):** The process through which all young people and adults acquire and apply the knowledge, skills, and attitudes to develop healthy identities, manage emotions and achieve personal and collective goals, feel and show empathy for others, establish and maintain supportive relationships, and make responsible and caring decisions.

**text:** An item that is read, viewed, listened to and created to share meaning. Texts can be print-based, such as books, magazines, and posters or screen-based, such as internet sites and DVDs. Many automated text readers are multimodal and integrate images, written words, and sound.

**Universal Design for Learning:** A framework for addressing the diversity of learners in classrooms. Rather than individually adapting to each learner's needs, teachers create learner-focused environments by designing learning experiences that are accessible to a wide range of learners. This systematic approach removes learning barriers by clarifying learning intentions and providing flexible instructional environments.

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