Place-Based Education: Improving Learning While Connecting Students to Community and Environment

by

© Corissa L. Pasiechnyk

A Project Submitted in Partial Fulfillment of the Requirements for the Degree of Master of Education In the Department of Curriculum and Instruction

University of Victoria

Dr. Michelle Wiebe - Supervisor (Department of Curriculum and Instruction)

Dr. Todd Milford - 2nd reader (Department of Curriculum and Instruction)

Abstract

Place-based education is emerging as a progressive response to the standardized, decontextualized curricula that has historically and contemporarily characterized our education system. With foundations in environmental education, community-based education, inquiry, and action learning, there exist many variations of place-based education. Calling into question the purpose and definition of education, place-based education can provide educators and students with real-life learning while developing an appreciation and understanding of local places, fostering a sense of community, and promoting students' agency in order to do meaningful work and answer important questions. Whereas many scholars in the field adopt and build on the concept of a "critical pedagogy of place", many acknowledge this contribution to the literature and then explore a version of place-based education that can enhance student learning and achievement within standard objectives and discrete subject courses, as a part of our existing standards-based system. The research literature indicates an overall improvement in student engagement and in-depth learning and understanding when taught from a place-based framework. The findings of this critical literature review additionally suggest that although place-based education can offer benefits to both student learning and community life, there exist many barriers to the successful implementation of this progressive approach to education. Place-based education has become a relevant topic for researchers and the greater educational community for its positive impact on developing students' sense of place, promoting community and environmental engagement, and on improving student learning.

Keywords: place-based learning, critical pedagogy of place, environmental education, Indigenous education, place, community-based education, rural education.

Table of Contents

Chapter 1: My Own Sense of Place

Introduction

Place-based education has the capacity to improve student learning and engagement while simultaneously linking students to their communities and natural environments. An extensive literature base has demonstrated that there are deep problems with education systems that strive for standardization and universalism, and that define achievement within these parameters (Eppley, 2011; Greenwood, 2014; Maltese & Hochbein, 2012; Wang, Beckett, & Brown, 2006). Place-based education is emerging as an alternative to the widely accepted, albeit outdated formula whereby content is organized into discrete courses of abstract study and students' proficiency is uniformly measured through some form of standardized assessment. This alternative model embraces students' existing knowledge in order to enhance their learning in and out of school. Through the review of 25 empirical studies, it is evident that place-based education has emerged as a teacher response to current neoliberal pressures on education including increasing commitment to standardized assessments, a decontextualized and overburdened curriculum, and student and community isolation (Gruenewald, 2005). There is a growing appreciation for the significance of students' sense of place in relation to their experience with schooling (Avery & Hains, 2017); therefore, it has been demonstrated that place-based education has the potential to positively impact many aspects of student learning and can additionally produce positive outcomes for local communities and the environment (e.g., Endreny, 2009; Mannion & Adey, 2011). Literature also suggests that exposure to place-based outdoor experiences in childhood can greatly influence environmental attitudes later in life (Ewert, Place, & Sibthorp, 2004; Gallay, Marckini-Polk, Schroeder, & Flanagan, 2016). In spite of the array of benefits of place-based education for all stakeholders, there are many challenges

in place that impede its successful implementation (Howley, Howley, Camper & Perko, 2011; Powers, 2004; Smith, 2016).

This review examines place-based education in the public, K–12 classroom setting and discusses the emergence of five themes within its application: (a) students' sense of place and its connection to the schooling experience; (b) outcomes of place-based education on student learning; (c) the impact of the current educational climate on teacher interest in place-based education as an alternative; (d) effects of community involvement in education on all stakeholders; and, (e) structural conditions that can either impede or enhance the effective implementation of place-based education. In this introduction, I begin by describing the roots of my personal interest in place-based education and I then explore the background of research supporting place-based education in schools, analyzing the benefits for students, communities, and the environment. I also highlight some of the challenges that must be addressed to implement effective place-based education on a large scale.

Personal Interest

A combination of life experiences has contributed to my interest in the power and meaning of place, and its implications for place-based education. I am currently raising my own family in the same small, British Columbia (BC) mining town that I was born and raised in. My father, my uncle, and both of my grandparents were employed by the Sullivan Mine, the world's largest mine of lead and zinc. After operating for nearly a century, the mine closed its doors forever in 2001, causing a major economic, cultural, and environmental disturbance for the people who call this place home. The mine has a history of environmental impact on our community. Mark Creek, a tributary of the larger St. Mary's River that feeds into the Kootenay River approximately 30 kilometers from our community, runs through the center of our town and

also provides its drinking water. This watershed serves as an example of some of the highly visible environmental impacts of the Sullivan Mine on this specific place. I remember the water and bank of Mark Creek (running directly and visibly through our downtown area) being a bright, vibrant orange resulting from effluent leaching out of the mine's waste rock dumping piles. Growing up, I heard folk stories about the toxicity of the creek: someone once dropped their doll into the water, and by the time they found it downstream, its hair had all been "eaten off" due to the acidity of the water. Independent of the question whether such tales are factual, they nevertheless illustrate the narratives around environmental conditions in our community.

My childhood was spent hiking, skiing, and playing outside in the woods near my house, despite the environmental damages caused by a century of mining. Regardless of the orange hue (resulting from oxidization of lead, zinc, and iron) covering much of the soil and bedrock, as far as my family was concerned, we were lucky to live in such a pristine natural environment. My brothers and I grew up knowing almost everyone in the tight-knit community that rallied together after the mine shut down to create a new vision for the future of a community that seemed poised to become another resource-driven BC town suffering from economic depression. The beautiful natural environment surrounding this community, paired with its blue-collar history, allowed for a unique response to the challenges that came with the closure of such an economic cornerstone. The mine has been closed for over 15 years, and the community's economy is now primarily driven by tourism. As a result of multiple stakeholders working together for creek reclamation, Mark Creek is now fish bearing, the riverbank is stabilized, and children and dogs happily play in its swimming holes in the summer. In spite of the ecological impact of decades of invasive mining, the community is now sustained because of its raw beauty and natural environments.

My upbringing in this multifaceted community has informed my own sense of place, and has contributed to my deep understanding that a place is more than one thing to one person or one group of people. I am deeply affected by the historic, economic and cultural forces that are at play in this specific location. This place additionally has multiple different meanings for the Ktunaxa peoples, for whom the Kootenay and St. Mary's Rivers as well as Mark Creek, as one of its tributaries, play a dramatically different and very important role. The ʔaq̓am peoples, (St. Mary's Indian) have lived in this valley since time immemorial. ʔaq̓am is one of five bands of the Ktunaxa Nation Council, whose territory encompasses much of southeastern BC, as well as northern Washington, Idaho, and Montana States (Figure. 1).

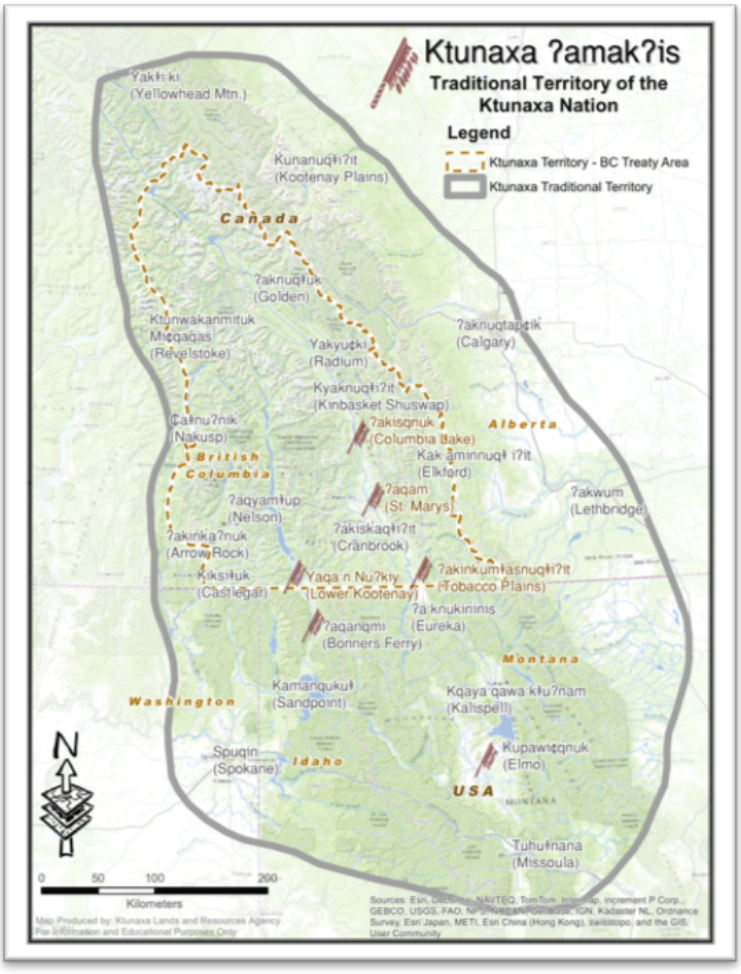


Figure 1. Traditional territory of the Ktunaxa Nation (supplied by Ktunaxa Nation Council)

ʔaq̓am, named for the St. Mary's River, have a specific connection with this particular watershed, as is evidenced through the central role it plays in their creation story. The Ktunaxa oral tradition is worth taking some time to describe, as it illustrates the deep and varied historic connections to this land, and can help to highlight some problematic notions of place as explored through place-based education (Eijck & Roth, 2010). According to ʔaq̓am oral tradition, as described on the Ktunaxa Nation Council website, the emergence of ʔaqłmaknik̓ (people) on Earth occurred in this watershed and surrounding regions. In ancestral times, there was a huge sea monster known as Yawuʔnik̓, who was killing many of the animals. A council was called by the Chief animal, Nałmuqɬin, who was huge. He was so tall that he had to crawl on his hands and knees, for if he stood up his head would hit the ceiling of the sky. A war party was formed to destroy Yawuʔnik̓. Yawuʔnik̓ plied the Kootenay and Columbia River System. Yawuʔnik̓ was sighted in the Columbia Lake near Yaqa·n Nuʔkiy, and the chase was on. At that time, the Kootenay River and Columbia Lake were joined. As the chase proceeded, Nałmuqɬin gave names to many locations along the Kootenay River. Yawuʔnik̓ was pursued down the Kootenay River past the Wasa sloughs, (now called Wasa, a neighbouring community close to where the St. Mary's flows into the Kootenay River). A lake outside Skinkuɬ got into trouble here when he fell into the river and had to be rescued by Wasa, (horse-tail). As the chase went on, they went past where the St. Mary's River empties into the Kootenay River in ʔaq̓am, where the St. Mary's Reserve is now located.

After leaving this region, the land of the Eagle, ʔa·knuqłułam̓, the chase cycled the entire region of the Ktunaxa territory, but Yawuʔnik̓ would once again escape into the Kootenay River and the chase would go on. The chase would go on and on. Every time the war party thought they had Yawuʔnik̓ cornered, Yawuʔnik̓ would escape again. One day, sitting on the river bank

observing the chase, there was a wise old one named Kiḵum. Kiḵum told Nałmuqɬin, “You are wasting your time and energy chasing the monster. Why not use your size and strength and with one sweep of your arm, block the river from flowing into the lake and the next time the monster enters the lake you will have him trapped?” Nałmuqɬin took the advice of Kiḵum and did as he was told. The next time Yawuniḵ entered the lake, he was trapped. Having successfully corralled Yawuʔniḵ, a decision had to be made as to whom the honor of killing Yawuʔniḵ would be bestowed upon. The honor was awarded to Yamakpał (Red-headed Woodpecker).

When Yawuʔniḵ was killed, he was taken ashore and butchered and distributed among the animals. There remained only the innards and bones. The ribs were scattered throughout the region, and now form the Hoo Doos seen throughout the area, (notably, along the banks of the St. Mary’s River). Nałlmuqɬin then took the white balloon-like organ, known as the swim bladder, and crumbled it into small pieces and scattered it in all directions saying, “These will be the white race of people.” He then took the black ingredient from the inner side of the backbone, the kidney, and broke it into small pieces and scattered them in all directions declaring, “These will be the black race.” He finally took the orange roe and threw the pieces in all directions saying, “These will be the yellow race of people.” Nałmuqɬin looked at his bloody hands and reached down for some grass to wipe his hands. He then let the blood fall to the ground and said, “This will be the red people, they will remain here forever.” Nałmuqɬin, in all the excitement, rose to his feet and stood upright, hitting his head on the ceiling of the sky. He knocked himself dead. His feet went northward and is today known as Ya·łiki, in the Yellowhead Pass vicinity. His head is near Yellowstone Park in Montana State. His body forms the Rocky Mountains. The people were now keepers of the land. The spirit animals ascended above and are the guiding spirits of the people.

This oral story is a significant marker of the deep cultural, spiritual, and historical connection that the ʔaq̓am have with this valley. Their identity as a people intersects with the valley and the river systems in particular. They belong to this land, and see themselves as stewards of it. As evidenced in the above creation story, ʔaq̓am language and use of place as markers of significant events and geographic location do not follow typical European patterns of description. As these two different examples illustrate, the ways that place is conceptualized vary, and therefore in an educational context, understanding of place will greatly affect the experience of learning from it. The resulting discrepancies raise questions for place-based educators (Eijck & Roth, 2010).

My own sense of place is informed by my European heritage and my family's history of resource extraction; I understand how my experiences have impacted my own understanding of this place. I am cognizant that as a non-Indigenous person, my own understanding of this place is dramatically different from the ʔaq̓am peoples'; my concern for understanding and appreciating diverse interpretations of place, and in encouraging others to consider diverse experiences, influences my interest in place-based education. My sense of place has evolved to include an appreciation for the sense of place of others' and is coupled with my early teaching experiences, which additionally served to inform my standpoint, shape my identity, and ultimately, transform my practice.

My first teaching experience brought me to Telegraph Creek, a very small, remote community on Tahltan territory in northwestern BC. This position contributed to my disenchantment with standardized, decontextualized curricula, and was formative for developing my interest in a place-based education that is sensitive to local contexts. While living in Telegraph Creek, I witnessed and experienced the structural, historical, economic, and political

challenges that characterize life for many people living on reserve. I noticed a dramatic disconnect between the curriculum I was mandated to teach, and any knowledge that was connected to students' lives and meaningful for them. For example, administering the BC Foundation Skills Assessment in reading provided a painful illustration of the implications of providing irrelevant materials to measure our learners. In this particular year, the selection of text was a narrative about taking the ferry from Vancouver to Vancouver Island. The farthest south that any one of my Tahltan students had travelled was Prince George, roughly 790 km from Vancouver. None of them had ever been on a ferry, and several of my students admitted to me after completing the assessment that they still did not know what a ferry is. I question both the ethics and the educational value of comparing them to their (often) non-Aboriginal, urban peers who know intuitively what a ferry is and have likely made the same trip as described on numerous occasions. Conversely, when I had my students complete a non-fiction reading assessment on animals' native to the boreal forests of BC, not surprisingly, their results were improved. Background knowledge and personal connection to text are imperative for learning and for the measurement of learning. This anecdote is one of countless examples that can serve to highlight the challenges implicit in our standardized school system. Indigenous students are not the only ones disserved by our current model, but both rural and urban non-Indigenous students also experience education that does not connect with their lived experiences. My interest in place-based education comes from a belief that all students can benefit from an education that is meaningful and culturally relevant to them.

Assessment practices such as the aforementioned Foundational Skill Assessments, and the style of teaching and learning that they encourage, underscore the reality that the motive of schooling in our present-day context, is not education (knowing), but instead, as apparent

through government policies and both teacher and student behaviours, it is the production and exchange of grades, which are ultimately accumulated to access capital and further opportunities (Roth, 2010a). Place-based educators recognize the issues with a system that encourages "teaching to the test" and thus primarily produces good test-takers, and in which both teachers and students learn to do what they are told (Friesen & Jardine, 2009). In my own experience in Telegraph Creek, I recognized the challenges of a system that promotes test-taking above learning. In an educational climate that values scores on tests and achievement above all else, I worry that we have lost sight of our goal: to *educate: "*to encourage careful thinking, critical examination of information, a commitment to develop all sides, and to allow time for genuine interest—perhaps even enthusiasm—to develop" (Noddings, 2013, pp. 403–404).

Place-based educators see that the ideal outcome of education is not measurable on a high-stakes test (Hall & Ashley, 2016) and resist the pressure to think of learning within our standard, traditional framework. Instead they shift the focus to providing educational experiences that are aligned with our emerging present and future: "*analogies with ecology*, new information and communications technology, *the rise of indigenous knowledge, certain place,* a landscape, a "topography (full of "topics"), an *'environment' with interdependent features and ways*" (Friesen & Jardine, 2009, p. 26, emphasis added) are some of the learning landscapes that can be addressed through place-based practices. Through a community, place-based education, we might promote a more stable, less frantic pace in the classroom (Jardine, 1996) that engages students in relevant activities for the communities in which they live, and that can constitute meaningful opportunities for deeper understandings of new concepts (Roth, 2010a).

Chapter 2: Research Background

Our education system is based on a factory model that evolved to meet the demands of labour for assembly line production systems in the late 19th century; students and society are no longer served by the "efficiency movement" popularized by men such as Henry Ford and Fredrick Winslow Taylor (Friesen & Jardine, 2009). Place-based education programs can offer an alternative that links students' lives and experiences to their formal education (e.g., Gruenewald, 2008). An evaluation of over 100 American schools engaged in place-based education programs has found that "place-based education fosters students' connections to place and creates vibrant partnerships between schools and communities. It boosts student achievement and improves environmental, social, and economic vitality" (PEEC, 2010, para. 5). Indeed, my own review of 25 studies on place-based education reveals similar findings; intergenerational knowledge is transmitted more freely and has a positive impact on students, schools, and communities (Avery & Hains, 2017; Mannion & Adey, 2011) and multiple facets of student learning are improved, including but not limited to, academic achievement as measured by standardized assessments (Donovan, 2016; Peterman, Cranston, Pryor & Kermish-Allen, 2015). The preceding survey of the literature found the emergence of five themes related to place-based education: students' sense of place is intimately tied to the schooling experience; place-based education has positive outcomes on many facets of student learning; the current political and educational climate has motivated teacher interest in place-based education; community involvement in education offers benefits for all stakeholders; and finally, systemic forces constrain and encourage the effective implementation of place-based education.

Place-based education can include socio-ecological, cultural, and civic action (Gruenewald, 2003a). It connects experiences within the larger community to the official curriculum, allowing students to draw upon their own sense of place to engage with the real

problems and resources of their own locality, and promoting agency and civic action that can have a real effect on their lives outside of school (Miller & Twum, 2017). Place-based educators often use authentic tasks within a project or a problem-based learning format to involve their students in the real world, outside of the classroom (Smith, 2002). By guiding their students to ask deep questions about their local communities, teachers can help build "place consciousness" (Gruenewald, 2003, p. 644) allowing for a personalized appreciation for their community's history, context, and potential. Although social and ecological activism are not inherently a part of place-based education, and one can teach from place without engaging political or environmental issues, studies have demonstrated that neglecting civic action can lead to difficulties and tensions for students, and can even negate the impact of teaching using a place-based framework (Zimmerman & Weible, 2017). The focus on students' sense of place and its connection to local community provides a natural opportunity to critically examine the interconnected social, economic, and political forces contributing to oppression on both a local and a global scale (Miller & Twum, 2017).

The social and ecological justice dimension of place-based education is further advanced by educators who teach from a "critical pedagogy of place" (Gruenewald, 2008, p. 317), which combines the aforementioned elements of place-based education with the tenets of critical pedagogy to counter the demands of neoliberal global capitalism through two central concepts: reinhabitation and decolonization. Reinhabitation relates to the ability to "identify, recover, and create material spaces and places that teach us how to live well in our environments" and decolonization refers to our capacity to "identify and change ways of thinking that injure and exploit other people and places" (p. 319). As such, critical place-based educators facilitate inquiry into local issues such as pollution, racism, and other systemic inequalities with the aim to

highlight and challenge hegemonic practices and views (Miller & Twum, 2017). They additionally encourage their students to be involved in action to improve the well-being of their communities and environments (Roth, 2010b).

Academic achievement is consistently cited as an outcome of place-based education programs and this data is additionally supported by other educational programs that share similar tenets. For instance, nearly 20 years ago, the State Education and Environmental Roundtable conducted research on 16 states using practices of the Environment as an Integrating Context for Learning (EIC) in order to study its effects on student learning in K–12 schools. Although these two educational models have different titles, their commonalities are notable: EIC designates pedagogy that employs natural and socio-cultural environments as the context for learning through a framework that is interdisciplinary, collaborative, student-centered, hands-on, and promotes engaged learning (Lieberman & Hoody, 1998). Place-based education proponents similarly advocate for community and environmentally based education that involves students in real world problem solving in order to create engaged learners. For the purposes of this paper, I consider EIC to be a sub-field of the broader field of place-based education (cf. Sobel, 2013). The results of this study of 40 EIC schools were broad ranging and encouraging. Data revealed "better performance on standardized measures of academic achievement in reading, writing, math, science, and social studies; reduced discipline and classroom management problems; increased engagement and enthusiasm for learning; and, greater pride and ownership in accomplishments" (p. 22). Place-based learning shows similar promise: improved student learning through a variety of different measures of success (Peterman et al., 2015), improved community relations (Mannion & Adey, 2011), and improved environmental attitudes in students (Endreny, 2010).

Place-based education is based on the broad philosophy of experiential learning; subject matter is taught in a manner such that it connects with students' experiences in their communities (Beard & Wilson, 2006). This belief in experiential education builds upon the notable theories of the American pragmatist philosopher John Dewey, who discussed the challenges of decontextualized curricula over 100 years ago:

> From the standpoint of the child, the great waste in the school comes from his inability to utilize the experiences he gets outside the school in any complete and free way within the school itself; while, on the other hand, he is unable to apply in daily life what he is learning at school. That is the isolation of the school, its isolation from life. When the child gets into the schoolroom he has to put out of his mind a large part of the ideas, interests, and activities that predominate in his home and neighborhood [sic]. So the school, being unable to utilize this everyday experience, sets painfully to work, on another tack and by a variety of means, to arouse in the child an interest in school studies. (Dewey, 1907, p. 52)

Dewey was perceptive to the challenges inherent in motivating students to learn about content that has no clear relevance for them. Such a system produces an experience with learning that is challenging for both the school and students; making both the task of teaching and of learning more burdensome than they ought to be. Thus, education that draws on existing ideas and interests can have a greater effect on student learning. This review of existing literature finds that place-based education practices can provide a solution to the isolation of which Dewey speaks. It offers a way for children to instead bring ideas, interests and activities into school studies, rather than keeping them distinct. As such, place-based educators aim to break down traditional barriers between disciplines and provide hands-on learning experiences that often

have a project or problem-based component (Lieberman & Hoody, 1998). Dewey's critique of our modern educational framework has been echoed extensively in the literature base; however, his call for reform has remained an exception, rather than a rule in most North American schools, to the detriment of many students' learning experiences.

Within the field of environmental education, place-based education responds to a concern about providing young people with experiences in nature in order to build an ethic of care and respect for the planet (Sobel, 1996). It has been lauded as a process of education that "helps students develop stronger ties to their community, enhances students' appreciation for the natural world, and creates a heightened commitment to serving as active, contributing citizens (Sobel, 2004, p. 7). The notion that it can create appreciation for *the* natural world has been problematized as reductionist and potentially Eurocentric (Eijck & Roth, 2010). It is essential that place-based educators acknowledge place as "historically contingent" (Sun, Chan, & Chen, 2016) and as a "lived entity" (Eijck & Roth, 2010, p. 871), which has multiple meanings for different groups, and indeed, even for individuals in different contexts. This subjective, pluralist view of place can be at odds with traditional, objectivist notions of education and curriculum, particularly science education; an incongruence that has arguably had detrimental effects on certain marginalized groups, such as Indigenous and rural learners (Zimmerman & Weible, 2016). Work in place-based education aims to reconcile and honour multiple meanings of place with the formal schooling experience (Avery & Hains, 2017; Ritchie et al., 2015; Zimmerman & Weible, 2016).

Educators who choose to implement place-based practices typically do so within a political climate that mandates accountability and standards-based testing. This context creates institutional barriers to place-based education (Gruenewald, 2005), but can also simultaneously

provide motivation for teachers to practice strategies of resistance to promote an alternative, more meaningful way to educate (Harasymchuck, 2017; Miller & Twum, 2017). In addition to internal procedures such as standardized curricula and best practices and testing, schools are generally also physically and geographically isolating for teachers and students. Architecture and rules around spatial access and exclusion contribute to the way schools can function to limit the experiences of diversity (Gruenewald, 2005). In the American context in particular, there exists a dominant narrative of accountability and achievement (Gruenewald, 2005). Place-based education can have the effect of positively deregulating education by offering a de-standardization of knowledge, creating less dependence on teachers as dispensers of knowledge, and providing less regimented approaches to assessment and power (Smith, 2007). Interest in challenging the narrow definition of achievement and the trend of students acting as passive receptors of knowledge has emerged as a key motivation for many place-based educators (Miller & Twum, 2017; Yamauchi & Purcell, 2009).

One of the main findings of this comprehensive survey of the literature relates to place-based education's ability to connect students and schools to communities (Mannion & Adey, 2011), particularly rural communities (Howley et al., 2011). A long and pervasive history has delegitimized rural contexts, communities, values, knowledge, people, and education (Avery & Hains, 2017). The marginalization of rural people has contributed to the perpetuation of a false dichotomy between local and academic knowledge and rural students' cultural, historical, socioeconomic, or Indigenous perspectives are thus frequently dismissed when compared to standardized curricula, which can result in feelings of disenfranchisement (Avery & Hains, 2017). Both rural and Indigenous students have been especially marginalized by a standard curriculum that ignores, and even degrades, their knowledge and experiences. Some advocates

for place-based education highlight its potential for rural revitalization (Theobald, 1997) whereas others more simply recognize its power to make learning relevant, accessible, and validating for all learners. Advocates of place-based education find that by making classroom and school walls more permeable, students are able to build relationships and connections with community partners that can have benefits for all stakeholders (Yamauchi & Purcell, 2009).

A systematic study of the existing literature finds that many studies analyze the conditions that impede and enhance the successful implementation of place-based practices (e.g., Avery & Hains, 2017; Goralnik & Nelson, 2017; Howley et al., 2011; Miller & Twum, 2017; Powers, 2004; Sherfinski, Weekley, & Slocum, 2017; Sias, Nadelson, Juth, & Seifert, 2017; Yamauchi & Purcell, 2009). Some of these explored conditions are structural; research is related to socio-political systemic barriers to effective, contextual education (Sherfinski, Weekley, & Slocum, 2017; Yamauchi & Purcell, 2009), whereas conditions such as the already overburdened curriculum and lack of teacher time are additionally frequently cited as barriers for place-based education (Harasymchuk, 2017; Miller & Twum, 2017; Peterman et al., 2014; Powers, 2004). Existing programs that have experienced success tend to share similarities such as supportive administration (Harasymchuk, 2017; Howley et al., 2011; Powers, 2004), and effective teamwork and communication between schools and community partners (Kafi & Motallebzadeh, 2014; Miller & Twum, 2017; Powers, 2004; Yamauchi & Purcell, 2009).

According to the reviewed literature, students' sense of place is intimately tied to their experience with schooling. By acknowledging students' unique contexts, place-based education has the power to positively affect eight aspects of student learning: it can improve curricular learning outcomes (Donovan, 2016; Lieberman & Hoody, 1998; Peterman et al., 2015), engagement (Avery & Hains, 2017; Miller & Twum, 2017; Zimmerman & Weible, 2015),

social-emotional learning (Goralnik & Nelson, 2017; Ritchie et al., 2015), thinking and learning skills (Goralnik & Nelson, 2017; Miller & Twum, 2017). It can additionally impact environmental attitudes (Endreny, 2010; Jagger, 2016; Zimmerman & Weible, 2015) and students' sense of agency (Endreny, 2010; Glassner & Eran-Zoran, 2016) although some studies did not find any increase in capacity for civic engagement (Zimmerman & Weible, 2015). Indigenous education can be improved by means of place-based learning (Ngai & Koehn, 2010; Ritchie et al., 2015), as can the learning of other at-risk groups of marginalized learners (Avery & Hains, 2017; Donovan, 2016). The literature additionally suggests that acknowledging the meaning and power of students' place can contribute to the development of meaningful relationships between students, schools, and communities, which can have a positive impact on both students' learning and the affected communities (Gallay, Marckini-Polk, Schroeder, & Flanagan, 2016; Mannion & Adey, 2011). Finally, the literature explores conditions that constrain and enhance the potential of place-based education within our modern education system.

Research Pathway

I began my search for appropriate studies to review using Web of Science database. My original search term, "place-based learning" garnered 45 results; through reading the titles and the descriptions of these results, I was able to find many appropriate articles. Some of the search results that I quickly eliminated referred to place-based learning in higher learning contexts; because I am interested in place-based education in a K–12 public school setting, these articles were not appropriate for the scope of my research. I did review some articles that related to public school pre-service teacher training, which I accepted because of the significant role of teacher training and attitudes on educational practices. While browsing, I alternatively used the

term “place-based education”, bringing up 112 results. I was able to read the titles and abstracts to find articles that relate specifically to K–12 education and teacher training. For each study chosen, I checked for a methods section to ensure it was empirical. I conducted similar searches on the University of Victoria’s library search engine and through Google Scholar. After exhausting my results through these three search engines, I began to use the reference sections of important studies that I had already reviewed to find additional studies, searching for the titles of works that appeared relevant based on discussion in text and their titles. When I discovered a particularly relevant article, I would further search for additional work by that author to try and find more work that could augment my review. Theories of notable scholars such a Gruenewald, Smith, and Sobel appeared frequently in many of the studies, so I additionally searched their names in relation to place-based education. My search was guided by selecting studies that included empirical research to support place-based education practices. It is worth noting that it was difficult to find enough studies that are Canadian, or even North American, in order to complete a comprehensive critical literature review. Many of the articles are published in the United States, but also in Scotland, Australia, and New Zealand.

After reading the selected articles, I endeavored to categorize them, searching for broad themes in their findings. I created an empirical table where I documented the key insights and results of each study. After I had input all of the relevant information, I reassessed the table to ensure that each sub-heading accurately and succinctly captured the review’s findings. I then used the sub-headings to organize all of the themes into five broader headings and analyzed the results to articulate the question that they each answer. These five questions thus evolved into the five research questions guiding this critical literature review.

Definitions

For the implications of place-based education to be fully understood, there is associated terminology that needs to be clearly defined. These terms include *place-based education, student learning, schooling experience, community involvement, educational climate, structural conditions.* For the purpose of this study, these key terms are used as defined below.

Place-based education. According to Rural School and Community trust, place-based education is learning that is rooted in what is local. It involves the unique history, environment, culture, and economy of a particular place. In place-based education, community provides the context for inquiry-based learning and student work focuses on problem solving relating to community needs and interests. Teaching and learning involves community members and organizations as resources and partners (2013).

Student learning. Student learning takes many forms; for the purposes of this paper, eight specific facets of student learning as affected by place-based education became apparent. Student learning can mean achievement according to curricular learning outcomes (Donovan, 2016; Lieberman & Hoody, 1998; Peterman et al., 2015), student engagement and motivation (Avery & Hains, 2017; Miller & Twum, 2017; Zimmerman & Weible, 2015), improvement of social-emotional learning (Goralnik & Nelson, 2017; Ritchie et al., 2015), enhanced complexity and competence in terms of thinking and learning skills (Goralnik & Nelson, 2017; Miller & Twum, 2017), attitudes towards environmental issues (Endreny, 2010; Jagger, 2016; Zimmerman & Weible, 2015) and students' sense of agency and self-efficacy to make meaningful contributions (Endreny, 2010; Glassner & Eran-Zoran, 2016). The learning of specific student populations is additionally examined, including Indigenous groups (Ngai & Koehn, 2010; Ritchie et al., 2015) and other at-risk groups of marginalized learners (Avery & Hains, 2017; Donovan, 2016).

Schooling experience. Students' schooling experience is affected by many factors. Place-based educators recognize that specific, local contexts and students' sense of place contribute to their experience with schooling. This experience includes formal, academic learning and achievement, but also informal learning that can be either consistent or at odds with what is learned at school. Attitudes about learning, feelings of either empowerment or disenfranchisement, and perception of the value and relevance of what is learned, all contribute to students' schooling experience and can further impact engagement, achievement, and behavior (Zimmerman & Weible, 2017).

Community involvement. Proponents of place-based education seek to eliminate barriers between schools and communities. Community involvement can include service learning, activism, action learning, community mapping projects, school or community greenhouses and gardens, etc. School-community collaborations often have the purpose of enhancing academic learning and developing more meaningful curriculum (Yamauchi & Purcell, 2009). Involving field-experts in school projects is a key way to involve community.

Educational climate. Socio-political contexts have direct impact on systems of education. Historical time as well as geographic and political place shape the educational climate, impacting schooling on a macro and a micro level; broadly, government mandated curricula, neoliberal ideologies, capitalist and consumer culture, teacher accountability measures, federal policies such as No Child Left Behind, pre-service teacher training, etc. all outline and control the direction of education while placing constraints on teacher practice (Gruenewald, 2005), whereas on the local scale, the educational climate of a school additionally impacts teacher and student experience. Factors such as physical layouts of the spaces of schools, teacher relationships with administration, school culture and partnerships among teachers, geographic

location of schools within specific communities, relationships with potential community partners, local environmental conditions, etc., all contribute to the specific educational climates of schools.

Structural conditions. Structural conditions are the specific local conditions that impact teacher and student experiences with pedagogies such as place-based education. Factors such as quality of communication between administration, teachers, parents, and community partners, level of support of administration, motivation for involvement by community partners, access to resources, etc. all affect how innovative practices are implemented and received (Powers, 2004). Recognizing common conditions that both constrain and enhance existing programs is useful for implementation of future place-based initiatives.

Chapter 3: Literature Review

Literature Review Findings

Five specific findings emerged on the topic of place-based education following the review of twenty-five empirical studies. These key understandings will guide my exploration of place-based education in the subsequent discussion of my teaching context and experience implementing place-based practices.

1. Students' schooling experience is intimately affected by sense of place.
2. Place-based education has a positive impact on student learning.
3. Place-based education has emerged as a teacher response to standardized and decontextualized curricula and assessment.
4. Place-based education practices can have a positive impact on students, teachers, and the larger community.

5. There are structural conditions (e.g. supportive administration, pressures on teacher time, discourses of accountability, etc.) that both constrain and enhance the effective implementation of place-based education practices.

Literature Review Summary

Studies about place-based education generally examine the ways that students' specific local contexts impact their experiences with formal education (e.g., Avery & Hains, 2017). The existing literature predominantly focuses on elements of student learning that can be positively affected by place-based education; these factors include academic outcomes (Lieberman & Hoody, 1998) that are tied to engagement (Avery & Hains, 2017), social-emotional benefits (Goralnik & Nelson, 2017), and increased capacity in thinking and learning skills (Miller & Twum, 2017). The preceding review of the literature additionally finds that place-based education can enhance students' capacity for civic action, thus impacting their sense of personal agency (Endreny, 2010). Studies show that by acknowledging students' local places, formal education can contribute to the development of meaningful relationships between students, schools, and communities (Gallay et al., 2016). Finally, there is a substantial literature base exploring the conditions that both constrain and enhance the potential of place-based education models (e.g., Avery & Hains, 2017; Howley et al., 2011; Miller & Twum, 2017; Powers, 2004; Yamauchi & Purcell, 2009). Based on the numerous evidenced positive outcomes of place-based models, it is worth examining these conditions in order to initiate further implementation and to promote discussion about this alternative to current decontextualized systems of education. The following five key findings emerged as a result of the systematic review of 25 empirical studies: (a) Sense of place directly and intimately impacts students' schooling experience; (b) Student learning is positively affected by place-based education practices; (c) Teachers respond to socio-

political forces such as pressures around standardized assessments and overburdened curricula by implementing place-based education practices; (d) Community involvement in education can positively affect students, teachers, and the larger community; and (e) There are structural conditions (e.g., personal factors, decontextualized curricula, pressures on teacher time, discourses of accountability, etc.) that both constrain and enhance the implementation of place-based education practices.

Learning from Existing Place-Based Programs

The preceding review of the literature on place-based education reveals that it offers a superior alternative to the factory model currently operating in most North American schools. However, there are many factors that impede its implementation and provide barriers to those interested in making changes to their practice. In the subsequent section I will further examine the conditions that have been found to support or impede a teacher's or school's ability to implement this progressive model. Drawing on the experiences of other teachers and researchers, I will then outline my own goals for implementing place-based pedagogies into my own practice, with the view that my plans and experiences may be useful for other educators who are inspired by the outlined benefits of place-based education.

Existing place-based programming shows promise for improving student learning and community engagement; studies that evaluate these programs highlight the challenges to its' successful implementation (Howley et al., 2011; Powers, 2004; Yamauchi & Purcell, 2009). Review of the literature on these existing programs finds five general categories of types of challenges reported: (a) practical considerations; (b) systematic conditions; (c) personal and interpersonal issues; (d) pressures on teachers' time; and (e) the socio-political context of accountability. An understanding of these challenges will be useful for other educators interested

in working towards a place-based model.

Practical considerations. For teachers interested in implementing a place-based practice, there are several practical issues that require attention. Weather comes up frequently as a potential deterrent (Miller & Twum, 2017); Canadian winters can be difficult to manage, with extreme cold in many regions or relentless rain in coastal areas. Students do not always come to school prepared to spend time outside and the winter clothing that they own may not be sufficient for safe and comfortable learning to occur. Safety and risk management is another practical consideration on the minds of many teachers. By taking one's students outside of the school's walls, they are opened up to innumerable potential risks, including but not limited to wildlife encounters, slips and falls, traffic, and exposure to strangers. Advocates for place-based learning generally interpret the exposure of our students to precisely these types of real-life risks as one of the benefits of the program (MacQuarrie, Nugent, & Warden, 2015), however, our existing educational climate, views held by other teachers and school administration, and our students and their parents may not share the same views. In initiating a type of teaching that strays from traditional methods, teachers may also require different supplies and resources. Accessing these resources becomes an additional challenge for place-based educators (Miller & Twum, 2017).

Systemic conditions. Closely related to the practical considerations outlined above, there are further challenges that come as a result of the pre-existing structures of schools and our education systems. Traditional school structures, such as rigid timetables and the teaching of distinct content area separately can stifle potential for using a progressive approach (Sias et al., 2017). Geographically, schools can function as a tool for isolation and segregation: architecture, rules around spatial access and exclusion, and regulation of movement within the building serve

to limit students' experiences with diversity and can actually cause teachers' work to include surveillance, threat, and punishment (Gruenewald, 2005). Seemingly simple issues such as keeping mud off of school floors after doing fieldwork in a local wetland can create further obstacles to "breaking the sanitized classroom routine", and illustrate how the use and control of space are simply at odds with place-based education's aim of making classroom walls more permeable (Gruenewald, p. 272, 2005).

Place-based practices often involve leaving the school site, which creates supplementary work and considerations for involved teachers. If bussing is necessary, there are additional costs that must be covered and will require the support of an administrator. Cost, complications, extra time, and potential liability can create issues on behalf of involved teachers (Sias, et al., 2017). Further, there are often minimum teacher (or adult)-to-student ratios required for leaving school property. Some teachers may have Educational Assistants (EAs) to help manage their classes, but if not, it would likely be necessary for teachers to enlist the help of parent volunteers. Involving parents adds another element to be managed by the teacher, such as ensuring there are enough reliable volunteers who have clear criminal record checks and other required paperwork for working with children, overseeing parental interactions with students, and guiding them to help and not hinder learning projects. Teachers must also be confident enough in their practice to invite parents to observe and join in their learning.

Even when sharing common goals, schools and community-based organizations often operate in isolation from one another. Finding times that work within both school and organizational schedules to do fieldwork and communicate can prove to be challenging, largely due to lack of flexibility within teachers' calendars (Yamauchi & Purcell, 2009). Bureaucratic barriers such as legal issues related to confidentiality of student information can make it

additionally difficult to implement partnerships with outside organizations, despite benefits and teacher intentions.

Personal and interpersonal issues. It has been demonstrated that although many teachers are aware of the limitations of our current approaches to teaching, and have expressed interested in attempting to implement place-based methods, they may not actually make changes to their practice due to discomfort with change or feelings of insecurity relating to trying something that departs from their comfort zone (Can, Lane, & Ateşkan, 2017). Teachers expressed concern that during a place-based lesson, students might ask unexpected questions that they did not know the answer to. These feelings of being ill-prepared or ill-equipped to teach spontaneous content may deter teachers from trying a place-based lesson. Additionally, teachers tend to teach the way they were taught (Sias et al., 2017); lack of experience with place-based education means that many teachers do not have an example of what it might look like in their own practice.

For school-community partnerships there are additional challenges to overcome. Of particular significance for rural and low-income schools is the fact that school personnel often do not live in the same communities that their students do in these contexts (Yamauchi & Purcell, 2009). Resulting differences can hinder efforts to build partnerships and successful collaborative activities; if schools are low performing, there exists a tendency for schools and communities to blame each other for the situation, negatively impacting efforts to build partnerships. Further, educators may be hesitant to share decision making power and control with people who are not trained teachers (Yamauchi & Purcell, 2009). In one study assessing community involvement in the Hawaiian Studies Program it was found that interpersonal conflicts had the potential to derail the efforts of stakeholders (Yamauchi & Purcell, 2009). In the program's seven-year history, two

teachers left the program as a result of conflicts with another teacher. The teachers involved in the program noted that working so closely with others can create a type of intensity that has both advantages and disadvantages (Yamauchi & Purcell, 2009).

Pressures on teachers' time. The consideration of time comes up so frequently in every study examining place-based education that it warrants its own category for discussion. Teachers' time is already overburdened (Jardine, 2000) and the addition of place-based education can further add to the heavy workload and limited flexibility that characterizes professional life for many teachers. Ideally, place-based education will be integrated into one's teaching day through a multidisciplinary approach, rather than added on top of existing programs and studies (McMillan & Vasseur, 2010); however, entrenched systems of education and pressures around achievement and accountability in terms of assessment may prevent this ideal from becoming a reality.

While the ideal is to fully integrate place-based education, achieving this goal will require a long process and a deep commitment to it, which realistically will create more work for involved teachers. Communicating one's plans to administrators, students, and parents will require effort to convince each group of the educational benefits to altering the status quo. Field trips require time to create and collect forms and fees, enlist volunteers, and to prepare students with adequate skills ranging from appropriate behaviour around elderly people to proper use of technical equipment (Powers, 2004).

The programs examined as part of this literature review found that ongoing communication with community partners was a key element for sustained success; however, the process of making and sustaining relationships with community contacts (Powers, 2004), and then of engaging in frequent, on-going communication with them (Yamauchi & Purcell, 2009)

puts immense pressure on teachers' time. Investigating potential organizations, developing place-based curriculum and meeting with students about their service learning all take time in addition to a teachers' regular workload (Yamauchi & Purcell, 2009).

Curricular changes require conscious efforts on the part of involved teachers, many of whom do not have experience with curriculum development (Powers, 2004). Building curriculum planning skills emerged as a recommendation of an evaluation of four different place-based education programs (Powers, 2004). This study additionally advocated for a whole school improvement model, as opposed to teacher-by-teacher professional development model, for those interested in implementing place-based practices. Suggesting that this model could tackle the problem of time constrains from the outset, the study finds that supportive administration could alleviate teacher workload by offering staff or interns to support teachers and help them manage the transition from an old style of teaching to a newer one (Powers, 2004).

Because of the demands on time associated with making changes in the classroom, there is a high rate of teacher burnout in some place-based programs (Yamauchi & Purcell, 2009). One study suggests that when programs are individually implemented (rather than as a whole school model), they are especially vulnerable because they are sustained by the efforts of a few key individuals (Yamauchi & Purcell, 2009). Another study of a successful school based program indicates that features of the school culture, including the collaborative work of teachers regardless of differences in personality and educational philosophy, contributed to the resilience of their place-based efforts (Howley et al., 2011a).

The socio-political context of accountability. Policies such as the American *No Child Left Behind* (NCLB) have motivated schools and school personnel to primarily focus on

improved test scores. In one study this was especially apparent as NCLB was implemented two years after the beginning of the program and the study (Yamauchi & Purcell, 2009). Because of the new policy, the involved school adopted a model that made it much more difficult to allow time for weekly service learning sessions. Teachers and community members were able to adjust; however, the program struggled and the number of teachers, students, and community members decreased (Yamauchi & Purcell, 2009). Addressing curricular outcomes and assessment is a major part of all teachers' work. Within a climate that allows teacher flexibility and freedom, teachers are more able to implement creative practices in order to meet these needs.

One study discusses the emergence of the concept of "*deschooling*" (Miller & Twum, 2017, p. 100), which teachers use in reference to the transition from a model of education where students are passive consumers to one where they are active, creative learners (Miller & Twum, 2017). These teachers discuss the difficulty of overcoming the ingrained practices of schooling, which come as a result of discourses of accountability and achievement that characterize the school experience for many North American students. One teacher commented that by the time students come to their program they are "already ingrained in sitting in desks and listening to the teacher" (p. 101), and goes on to explain that it can often take at least 5 months before the students are comfortable with a dynamic, transformative, student-centered learning experience.

Chapter 4: Putting Literature into Practice

The clearly described benefits of place-based education as a progressive alternative to our current factory model, coupled with my personal interest in this environmentally and community focused pedagogy, make it an obvious approach for reform within my own practice. The aforementioned challenges to successful implementation will be useful for me as I plan my own place-based unit. In the following section I will briefly describe my own teaching context and

then outline a plan for integrating a place-based model into my practice.

Personal Teaching Context

There are many forces that impact specific teaching contexts, which are intimately tied to the ways different pedagogies live in practice (Louis & Wahlstrom, 2014). Here, I will briefly outline the contexts of my own teaching position, as impacted by my specific school, community, and provincial settings, each of which have an effect on how espoused curricula are lived within classes and schools.

I teach in one of two small K–3 public elementary schools in my rural community. This year there are eight full-time teachers and183 students enrolled. Our school is a certified "Green School" (http://www.seedsfoundation.ca); we have a greenhouse, an outdoor classroom, a composting program and a school garden. These unique components of our school will help to smooth my transition to place-based education, considering a large part of our existing school culture is already similarly aligned. However, each of the above programs have historically been sustained by key teachers who no longer work in our school and consequently, they have not been fully utilized in recent years, a common issue reflected in the research findings as part of the preceding literature review (Howley et al., 2011a). Therefore, they offer an obvious point of entry for me, should I decide to take on one of these projects with my own students.

The school is located in a residential neighborhood that is situated next to Louis Creek, an extensive network of trails for non-motorized vehicles which are utilized by hikers, mountain bikers, cross-country skiers and snowshoers (http://www.tourismkimberley.com/content/lois-creek-trails). These trails already offer an excellent opportunity for integrating environmental place-based education practices. The school is located 1.2 kilometres from the downtown core of our community, which includes a pedestrian-only shopping area, public library, post office, art

centre, city hall, fire hall, etc. It takes approximately 20 minutes to walk from the school to downtown. Walking to explore our community is therefore possible, but it does include crossing a busy road and climbing a sizable hill, which can be challenging for some young children. From this perspective, the location does pose some challenges for community place-based education.

As previously discussed, my community is a rural mountain town with a population of 4,513 permanent residents, according to the 2016 census report (http://www12.statcan.gc.ca). Historically economically sustained by the Sullivan Mine, the community is in the process of transforming from a blue-collar mining town to a tourism destination, after its closure in 2001. Our community has a ski resort, three golf courses within city limits, and extensive trail networks within and around the community. Many new families describe an interest in a slower paced, active, and outdoor lifestyle as motivation for moving to this small community.

British Columbia provides an additionally significant context for educational reform, especially because the Ministry of Education has implemented a brand-new curriculum this year. This curriculum is seemingly more aligned with the principles and tenets of a place-based model, and offers promise for those interested in changing their practice. Each curriculum from K–12 is built upon three central pillars: *know, do, understand*. Further, the new curriculum includes core competencies that build on themselves throughout the course of a student's schooling experience, from elementary to secondary school. These core competencies include skills in communication; thinking (creative and critical); and personal and social factors (personal awareness, sense of positive personal and cultural identity, social-emotional health and well-being, and a knowledge of importance of being socially responsible). This curriculum is intended to be more aligned with Aboriginal ways of learning and knowing, and according to the website promotes the use of "flexible learning environments" (https://curriculum.gov.bc.ca/curriculum-

info). It could be useful to capitalize on this process of change to attempt to implement place-based education and also to encourage other educators to learn more about a place-based model and potentially make small changes to their own practices.

Having grounded my experience in the specific places of my school, community, and province, I will endeavor to design a place-based project to complete with my Grade Two class. The subsequent portion of this paper will reflect upon the findings of the preceding literature review by outlining the specifics of this place-based project, including curricular learning outcomes I hope to achieve, a community organizations I hope to collaborate with, a strategy for communicating my plans with my administrator and school district level personnel (including grants I will apply for to complete this project), lesson activities, and a detailed year plan.

Project Introduction

Having immersed myself in the scholarly literature on place-based education, I am convinced that this pedagogy offers a powerful practice for my own teaching context. The next step of my professional learning journey includes planning a project for implementation in my practice. This plan will outline the specifics of a potential project, highlighting the links to BC's redesigned curriculum as well as the connections to existing place-based projects from the academic literature. It will also include practically useful tools such as grant application information, practical books and websites with adaptable lesson ideas, resources that interested teachers might consider collecting, and templates for communication with parents and administrators.

As defined by the Rural and Community Trust, place-based education is rooted in what is local. It involves the unique history, environment, culture, and economy of a particular place. In place-based education, community provides the context for inquiry-based learning and student

work focuses on problem solving related to community needs and interests. Teaching and learning involves community members and organizations as resources and partners (2013). Civic action is a central tenet of place-based education. Research shows that place-based projects lacking a civic action component had the greatest challenges in terms of motivating students (Zimmerman & Weible, 2015). Having a "real-life" project to work on gives students a sense of agency and shows them that their learning is relevant and important. With this in mind, I spent a great deal of time brainstorming an appropriate project for my students to complete as part of this model.

Chapter 5: The Place-Based Project

After much thought, I decided on two-part project that my class will complete as a cumulative task in answer to the big question: *What is our place?* This question will be addressed through a variety of place-based practices throughout the course of the year; these small-scale, school-based lessons encompass the first part of the project. The second part will take place during the spring term, when students will work with a professional local artist to design and create a mural to decorate the outside of a city-owned outdoor skating rink located in the same neighbourhood as our school. This mural will provide an authentic opportunity to both assess and publicly display student learning. The students and artist will be prompted to design artwork displaying our community's history, ecology, geography, Ktunaxa culture and uses of land, local water, and special community features, which will have been highlighted and explored through the activities involved in the first phase.

This project involves working with the City of Kimberley to make improvements to one of their (more neglected) facilities, and also involves developing working partnerships with a local artist. In addition, the teaching throughout the year will include collaborations with many

other community partners. For example, in order to teach the students about the mining history of the community, I will work with our small, non-profit museum. I will bring in seniors from the community who were involved in Kimberley's mining history to share their stories with the class. In order to highlight the First Nations' use of this place, I will work with the Ktunaxa nation to share Indigenous creation stories, culture, and specific uses of land and water, through the development of "pen-pals" with a class of students from the ʔaq̓amnik School located on the local St. Mary's Reserve, conversations with elders, and a visit to their school.

As has been previously described, two related but distinct parts have emerged as part of this project: (a) a place-based year plan including lesson and activity ideas as connected to the curriculum and, (b) a large-scale, community-based public art mural involving outside stakeholders and additional funding requirements. In the subsequent section I will outline the rationale for separating these two aspects of this project.

As evidenced in the preceding sections of this paper, the benefits of a place-based educational program are undisputable. However, there are many real barriers that prevent even enthusiastic teachers from reforming their practice; these challenges cannot be discounted. Therefore, in order to encourage as many teachers as possible to consider making changes to their practice to promote a place-based pedagogy, it is important to allow for a range of levels of commitment to reform. Some teachers may like to try one or two lesson ideas before considering making major changes. Therefore, there are specific lesson plans and activities that can be implemented as individual one-off lessons, as part of specific subjects or units, or more comprehensively as part of an integrated year-long focus. In order to facilitate ease of entry for as many teachers as possible, I decided to develop a year plan connecting the BC Grade Two curriculum with lessons that can be used in isolation or as part of a larger project. These

activities achieve learning outcomes, can be adapted for a variety of grade levels and contexts, and should not require any special resources, funding, or permissions.

The second phase of this project includes the plans for completing a large public art project, offering the opportunity for involved students to participate in a community-based action project. Place-based projects that connect the official curriculum to real-life experiences within the larger community can allow students to draw upon their own sense of place in order to engage with the real problems, opportunities, and resources of their locality, further promoting agency and civic action that can have a real effect on their lives outside of school (Miller & Twum, 2017). Conversely, the literature also extensively describes barriers to effective educational reform such as lack of time, funding, teacher burn-out (Harasymchuk, 2017; Miller & Twum, 2017; Peterman et al., 2014; Powers, 2004), and preconceived notions about what school "should" look like (Sherfinski, Weekley, & Slocum, 2017) based on their own schooling experiences. My own observations of implementing this project mirror the findings repeatedly discussed in the literature. This has been a time consuming, and at times, tedious project. As I consider the numerous clearly outlined benefits of place-based education, I believe that it is worthwhile separating the two phases, so that interested teachers can select the level of commitment that is appropriate for their context.

Planning a Community-Based, Action Project: A Beginning Teacher's Experience

Through the process of conducting extensive research on place-based education, I have been thoroughly convinced of the merits of a place-based model and have been moved to implement changes in my own practice. While one result of my systemic literature review was keen interest and motivation, even after full immersion in the existing research, I still was left feeling somewhat overwhelmed at the concept of tangibly changing my practice. As I reflected

on my position and my feelings, I realized that the vast possibility and openness inherent in this model, coupled with the paucity of exemplars modelling place-based practices, is a major limiting factor to progressive educational reform. Therefore, I decided to design this plan, complete with useful and practical resources, with the dual intention of making my own transition to place-based education more successful, while also offering a starting point for other interested educators who may have similar feelings. Therefore, I offer this guide as a framework for my colleagues, with the underlying caveat that in keeping with the spirit of place-based education, each teacher, class, and community offer their own unique and varied contexts which cannot be replicated blindly from one place to another.

The first step of my journey included deciding on a cumulative, community-based project to implement, as described in the preceding sections. I have described this aspect of the project as the second phase, considering that it will be implemented second, chronologically speaking. However, I will describe its evolution first in the context of this paper, in order to reflect the way that the process of planning the project naturally evolved. Mirroring backwards design planning practices, I began by determining what I needed my students to be able to know and do by the end of the year. I therefore worked on the cumulative task first, and then worked backwards to ensure I would meet curricular outcomes and provide my students ample opportunities to learn necessary skills.

Project partners. While planning this project, I had to consider practicalities such as the physical location of our school within the community; the ages and abilities of the group of children I will be working with; the scope of the project, including the availability of support and funding; opportunities for, and depth of, collaboration with community partners and colleagues; questions about whether the school and community partners would support such a project; etc. It

became clear that I would require the approval and support of several partners: (a) the City of Kimberley, (b) my school's administration, (c) outside funding sources, and (d) an interested and reliable local professional artist.

The City of Kimberley. Once I decided on a mural project for beautifying a public space in our community, I endeavored to contact stakeholders and potential partners. I began by setting up a meeting with the manager of Parks and Facilities in the Operations Department of our local municipality. I emailed him a brief description of place-based education and my vision for the project and asked if this type of project is something that the city would allow and potentially support. The manager replied that he was definitely interested in partnering with me, and we set up a meeting to further discuss details for the project.

My school's administration. The second meeting I set up was with my principal. My school and school district include outdoor education and place-based education as one of their key goals for growth. Indeed, according to the Rocky Mountain School District website's curriculum and learning section, "our students experience environmental, outdoor, and community-based learning" (https://www.sd6.bc.ca/Departments/). The district is additionally involved in a partnership with six other school districts from the Kootenay-Boundary region and the Columbia Basin Environmental Education Network to work together to advance place-based education through environmental education. With the knowledge of this vision for our local education, I met with my principal so I could explain my idea for my project, seek her approval, and determine if there may be the potential for support with funding a larger-scale project with my class. I prepared for my meeting by creating an outline of speaking points to refer to throughout our conversation (See Appendix A for a sample outline).

The conversation I had with my principal was generally very positive. She expressed support for the project and shared a few helpful ideas and suggestions. One of the critical topics I discussed with her was the potential for funding. Unfortunately, although she openly agreed with my ideas and the school is involved in larger projects to promote place-conscious education, this support will not translate to additional financial backing. In BC, each elementary classroom teacher receives an annual $250 budget to cover books and other classroom resources. This budget is not sufficient for the community mural I want my students to complete, so it became very clear that I would need to seek outside sources for funding my project.

Having already done some research on possible local grants, I knew that one of the primary potential funding organizations in my region, the Columbia Basin Trust, has been "mandated by legislation to not relieve any level of government of its legal or financial obligations" (Columbia Kootenay Cultural Alliance, 2018, p. 1). Therefore, in order to produce a successful grant application, it will be essential to describe the need for funding as falling outside the provincial government's responsibility for funding school projects. My principal's response to this query reveals the ways that the current factory model has deeply permeated our beliefs about education and schooling (Friesen & Jardine, 2009). In order to persuade the funding authorities that this project does not replace the government's obligations, but enhances them, she suggested that I describe all of the activities as "extra-curricular." The idea of beginning a project on place-based education and defining it as falling outside of the provincial curriculum is deeply problematic. As has been clearly demonstrated through the existing research, place-based practices should be integrated into cross-curricular projects and indeed, have the potential to dramatically improve student learning according to standard measures of achievement (Howley et al., 2011a). Additionally, they are extremely complimentary to BC's recently redesigned

curriculum and the Core Competencies (See Appendix B for an infographic on the Core Competencies). It can promote increases in students' engagement and motivation in learning (Avery & Hains, 2017), social-emotional benefits (Goralnik & Nelson, 2017), and capacity in thinking and learning skills (Miller & Twum, 2017). For these reasons, it is essential that as teachers, administrators, parents, and students, we all work together to undergo a process of "deschooling" (Miller & Twum, 2017, p. 100), in order to reframe what we instinctively consider to be "curricular" and "extra-curricular" learning. After I explained the evidence related to place-based education to my principal, she agreed with me. However, it is significant that her first instinct was to consider an outdoor, community-based project as falling *outside* the standard curriculum. As I will further demonstrate in a subsequent section of this paper, the curriculum can be deeply, meaningfully, and comprehensively addressed through place-based projects such as this.

Outside funding sources. After gaining support from the two key players involved in this project: the municipality and my school, I set about searching for appropriate grants to apply for. This was a very time-consuming and tedious process that involved many correspondences that often resulted in dead-ends. It is indicated in the literature that external factors such as a lack of time to devote to curricular changes can impede teachers' ability to reform their practice successfully (Powers, 2004). My experience searching for funding confirms these findings. I am in the privileged position of being on a leave from work while planning this project and working towards a Master's Degree in Education. It is also worth noting that I am completing the planning for this project well over a full year in advance, and was still barely able to meet some of the grant application deadlines. The timeline associated with acquiring financial support is critical to keep in mind for a teacher interested in supplementing their regular classroom budget.

Most classroom teachers do not have the luxury of thinking in-depth and planning units and projects they would like to teach in the spring of the following academic year; indeed, they may not even know what grade or subject they will be teaching. The daily pressures and constricting regularities of a classroom setting can in this way stifle creativity and constrain teachers' agency for introducing unique, place-based projects. This timeline and its inherent challenges struck me as a major limitation for teachers interested in attempting a larger, more meaningful and creative project with their class in the community.

Through the process of researching funding options for my project I uncovered the following potential options for grants. Several of these organizations were ultimately eliminated. However, they are worth describing briefly in order to illustrate the process, considering each local context will be unique for different educators. The six potential sources I discovered include: (a) the Columbia Kootenay Cultural Alliance (CKCA) Funding to Communities Grant, deadline to apply, March 2nd, 2018; (b) the Columbia Basin Trust (CBT) Recreation Infrastructure Grant, deadline to apply, February 22nd, 2018; (c) the Regional District of the East Kootenay (RDEK) Community Initiative and Affected Areas Programs grant, deadline to apply, January 22nd, 2018; (d) ArtStarts Artist in the Classroom, deadline to apply, May 25th, 2018; (e) City of Kimberley Grant Application funding, (ongoing submissions); and (f) funding possibilities from the Parent Advisory Committee (PAC) at my local school.

After some research and email and phone communications, it became clear to me that both the CKCA and the CBT grants would not be suitable for the purposes of my project. The CKCA grant is not available for any school-based project. The CBT infrastructure grant is intended for capital improvements to community facilities, not for artistic improvements and public art displays. The RDEK grant seemed to be more promising and I have submitted an

application to this organization (See Appendix C for a copy of the grant proposal and Appendix D for a copy of the submitted cover letter). At the point of writing, it remains unknown if the funding will be approved.

Part of the grant application process included generating a budget for my project. I considered the type of materials I would need, including their costs, as well as a fair and reasonable wage to pay my artist. I also needed to estimate roughly the amount of time I would need to work with the artist, in order to determine costs. To help me with this process, I googled and called a well-known local professional artist who also happens to work for a community organization called the Kimberley Youth Action Network. This artist was happy to help and described a similar mural project she had completed, in terms of understanding the necessary materials. She suggested that I use four-foot by eight-foot panels of plywood for the mural's surface. We agreed together that three panels would be an impactful yet manageable size to undertake with this age group of children. She recommended that I look up Opus Art Supplies (http://www.opusartsupplies.com), a Vancouver-based art supply store, to find outdoor, weather-proof quality acrylic paint. She suggested that I purchase at minimum the three primary colours, white, black, plus one or two other bright colours such as orange or pink. She also informed me that it will be necessary to laminate the finished product with a UV protecting varathane finishing coat. The sales representative at Opus suggested the possibility of using a spray paint to cover the background prior to having children paint in order to make the paint last longer and to stretch my budget. The local artist I spoke with informed me that the minimum acceptable wage to offer an artist for his/her work would be $25/hour. She said that different artists would have different expectations and that the cost could reach up to $50/hour. In my grant application I

opted to use $40/ hour as a goal, which will be variable, based on the amount of funding I receive.

The most promising grant I discovered is Artists in the Classroom (AIC), funded by the BC organization, ArtStarts. This grant is designed to bring professional local artists into the classroom in order to promote a deeper learning experience and to simultaneously increase artists' opportunities to further develop their practice (https://artstarts.com/aic). Teachers can apply for grants up to $3,500 for small-scale projects, or up to $10,000 for larger, whole-school projects. There are two deadlines to apply, at times that make more sense for most school calendars, October and May. AIC grants can cover up to 70% of total project costs. Additionally, I have the benefit of knowing other teachers who have successfully applied for funds through AIC.

The other two potential options include grant application funding through the City of Kimberley and funding through the school's PAC. I will pursue each of these options, if the preciously described grants are not successful or are not sufficient.

A local professional artist. The final piece of the planning stage of this project includes finding an appropriate artist with whom to collaborate. In the very beginning of this project I had an individual in mind, who is well known in the community and who has completed a similar style project on our school's greenhouse. However, I called this person three times, and have never heard back from him. Clearly, he may not be the best fit at this point in time. Next, I called the previously mentioned artist who works for the Kimberley Youth Action Network. She was very enthusiastic about helping me with my project and shared many helpful tips and suggestions. She seemed keen to include the youth from her organization, but did not offer a

commitment regarding the main project. My sense was that she was very busy and hesitant to agree to something so far in the future.

I ended up meeting the final artist by chance. After I casually described my idea at a community social function, an acquaintance exclaimed that I *must* meet Helen! After joining her for coffee, it became clear that indeed Helen will be an invaluable asset. She is a retired teacher who taught art and music in the Lower Mainland area; worked as the Fine Arts Coordinator for the Delta School District, where she facilitated many school mural projects; taught teacher education for the University of British Columbia Faculty of Education; and since retiring has moved back here to her hometown, so she can focus on her own art. She is enthusiastic about my project and agreed immediately to be the artist responsible for the work. Meeting Helen illustrates the positive potential for collaboration when one is immersed in their community and is open about sharing their ideas. I anticipate her being one of my most instrumental mentors throughout this process.

Conclusion. After contacting all involved parties, creating a working budget, doing as much as I can at this time to apply for extra funding, the planning phase of this action project has been completed. Once I am approved for funding, the remaining tasks will be ordering art supplies and materials, working collaboratively with my class to learn elements and principles of design, and to deepen our understanding of our place, and continuing to build the pre-established relationships with the City, my school, and the artist. I will additionally be responsible for reporting back to any organizations who provide money for the project. It will also be prudent for me to submit photos and articles to the local newspaper and to my school district's newsletter, the *Learning Leadership Report*.

Year Planning in a Place-Based Education Model

Useful resources. After developing a vision for my students' final task in response to the Big Question: *What is our place?* I endeavored to design a year plan that will provide relevant, personally meaningful answers to this question, while meeting the learning outcomes mandated by the BC education authority. I started by purchasing several books on outdoor education, place-based education, and forest school models (See Appendix E for a comprehensive list of useful resources for planning place-based practices). I began to compile a list of excellent activity ideas from the above resources, but ultimately found that there were so many, that this task was both cumbersome and redundant. However, I will attach a working copy as part of this project, as viewing the list may be a useful starting point for some educators (See Appendix F to view this [incomplete] list).

British Columbia curriculum. Next, I downloaded detailed versions of the recently revised BC Grade Two Curriculum as both Microsoft Word and Excel documents using the Search Curriculum function on the Ministry of Education website (https://curriculum.gov.bc.ca/curriculum/search). Using Excel, I read and highlighted all of the prescribed big ideas, content, and curricular competencies that can be easily achieved through place-based practices. I found that almost all of the skills and knowledge that I am required to teach can be intuitively integrated into place and inquiry-based practices (See Appendix G for my highlighted copies of the Grade Two curriculum).

The concepts that might require some more traditional methods will be integrated into my year plan. I found that some important English Language Arts (ELA) reading concepts could be taught by using SMART learning style literature sequences (http://www.smartreading.ca), choosing books that support the year's questions and theme (See Appendix H for a list of potential story books to supplement place-based practices). Important writing skills such as letter

formation and accepted conventions will be taught conventionally and also reinforced through the process of writing letters to involved stakeholders and community members. I also anticipate having my students submit writing to our local newspaper and local quarterly magazine (https://issuu.com/gokimberley) in order for them to experience writing for authentic purposes with a real audience. Many informal writing activities will center around our special local places.

Year-planning. After exploring my curriculum in-depth, I began to design my year plan. I started with each subject's stated Big Ideas, and then divided the year into the three elementary reporting terms. I looked at each subject's curriculum and decided on a timeline for each concept. After inputting the outcomes, I listed activities I was interested in trying, which I had found in the resources listed in Appendix E. I also considered my Big Question for the year: *What is our place*? Keeping this question and my mural project in mind, I worked on designing activities that will help support my students to meet all three goals (See Appendix I for a copy of my 2018-2019 Year Plan).

Reflection

Research indicates that place-based practices can contribute to significant improvements in student learning, attitudes towards school, and environmental beliefs (Sobel, 2013). There are additional benefits for community connectedness and family well-being (Mannion and Adey, 2011). However, a recent American study analyzing nine educational innovations for teaching elementary STEM materials, found that place-based learning and family involvement were the least frequently implemented innovations (Sias et al., 2017). My experience with planning this integrated year plan has anecdotally confirmed these findings. I have found the process to be creatively inspiring. As a teacher and a new mother, I have considered the planning process in relation to my daughter's future education and I feel immense hope when I think of the

possibilities for her experience in school, related to progressive practices such as place-based education. There is an urgent need in our system for innovative and relevant educational practices. Conversely, I have simultaneously found the project to be daunting. Recognizing that I am in a unique position to participate in educational reform, I wonder how committed I will remain, once I am back in a typical classroom setting, balancing the existing demands of my work and my family responsibilities. Being away from the physical school building, colleagues, and daily responsibilities of teaching has allowed me space to dream big and consider drastic possibilities. When I return to "the daily grind" (Jackson, 1990) of the classroom setting, I am sure that there will be setbacks to my implementation, however, I have been thoroughly convinced of the merits of this pedagogy and hope to improve the quality of my students' education and inspire others to make similar changes within their practice.

References

ArtStarts [website]. (2018). Artists in the classroom. Retrieved from https://artstarts.com/aic.

Avery, L. M., & Hains, B. J. (2017). Oral traditions: A contextual framework for complex science concepts—laying the foundation for a paradigm of promise in rural science education. *Cultural Study of Science Education, 12*, 129–166.

Beard, C., & Wilson, J.P. (2006). *Experiential learning. A best practice handbook for educators and trainers.* London, UK: Kogan Page.

Can, Ö. K., Lane, J. F., & Ateşkan, A. (2017). Facilitating place-based environmental education through bird studies: An action research investigation, *Environmental Education Research, 23*(5), 733–747.

Columbia Kootenay Cultural Alliance. (2018). Primary funding policies and guidelines: Arts and culture grant programs 2018-2019. Retrieved from http://basinculture.com/wp-content/uploads/sites/78/2018/01/CKCA-Primary-Funding-Policies-and-Guidelines-2018.pdf

Dewey, J. (2008). *The school and society.* Dehli: Aakar Books.

Donovan, E. (2016). Learning to embrace our stories: Using place-based education practices to inspire authentic writing. *Middle School Journal, 47*(4), 23–31.

Eijck, M. V., & Roth, W.-M. (2010). Towards a chronotopic theory of "place" in place-based education. *Cultural Study of Science Education, 5,* 869–898.

Endreny, A. H. (2010). Urban 5th graders conceptions during a place-based inquiry unit on watersheds. *Journal of Research in Science Teaching, 47*(5), 501–517.

Friesen, S., & Jardine, D. (2009) 21st *Century learning and learners.* Prepared for Western and Northern Canadian Curriculum Protocol. Calgary: Galileo Education Network.

Gay, G. (2004). The importance of multicultural education. In D. J. Flinders & S. J. Thornton (Eds.), *The curriculum studies reader* (2nd ed., pp. 315–322). New York, NY: RoutledgeFalmer.

Gallay, E., Marckini-Polk, L., Schroeder, B., & Flanagan, C. (2016). Place-based stewardship education: Nurturing aspirations to protect the rural commons. *Peabody Journal of Education, 91*(2), 155–175.

Goralnik, L., & Nelson M. P. (2017). Field philosophy: Environmental learning and moral development in Isle Royale National Park. *Environmental Education Research, 23(*5), 687–707.

Gruenewald, D. (2003). Foundations of place: A multidisciplinary framework for place-conscious education. *American Educational Research Journal, 40*(3), 619–654.

Gruenewald, D. (2005). Accountability and collaboration: Institutional barriers and strategic pathways for place-based education. *Ethics, Place & Environment, 8*(3), 261–283.

Gruenewald, D. (2008). The best of both worlds: A critical pedagogy of place. *Environmental Education Research, 14*(3), 308–324.

Hall, H. B., & Ashley, H. (2016). "Who's schooling who?": Counter-schooling toward feasible utopias. In C. Crosby, & F. Brockmeier (Eds.), *Community engagement program implementation and teacher preparation for 21st century education* (pp. 1–23). Hershey, PA: IGI Global. doi:10.4018/978-1-5225-0871-7.ch001

Howley, A., Howley, M., Camper, C., & Perko, H. (2011a). Place-based education at Island Community School. *The Journal of Environmental Education 42*(4), 216–236.

Howley, A., Showalter, D., Howley, M. D., Howley, C. B., Klein, R., & Johnson, J. (2011b). Challenges for place-based mathematics pedagogy in rural schools and communities in the United States. *Children, Youth and Environments, 21*(1), 101–127.

Jackson, P. (1990). The Daily Grind. In D. J. Flinders & S. J. Thornton (Eds.), *The curriculum studies reader* (2nd ed., pp. 315–322). New York, NY: RoutledgeFalmer.

Jardine, D. W. (1996). "Under the tough old stars": Meditations on pedagogical hyperactivity and the mood of environmental education. *Canadian Journal of Environmental Education. 1*(1), 47–55.

Jagger, S. (2016) "It's more like what you think of land": Bringing together community and education through mapping. *LEARNing landscapes, 10*(1), 105–124.

Kafi, Z., & Motallebzadeh, K. 2015. Place-based education: Does it improve 21st century skills? *International Journal of Applied Linguistics & English Literature, 4(*1), 89–94.

Ktunaxa Nation Council. (2017). Creation story. Retrieved from http://www.ktunaxa.org/who-we-are/creation-story/

Lieberman, G. A., & Hoody, L. L. (1998). *Closing the achievement gap: Using the environment as an integrating context for learning.* San Diego, CA: State Environment and Education Roundtable.

Louis, K. S. & Wahlstrom, K. (2014). Social forces: Present and future. In F.W. Parkay, E.J. Antcil, & G. Hass (Eds.). *Curriculum leadership: Readings for developing quality educational programs* (pp. 44–59). Boston: Pearson.

MacQuarrie, S., Nugent C., & Warden C. (2015). Learning with nature and learning from others: Nature as setting and resource for early childhood education. *Journal of Adventure Education and Outdoor Learning, 15*(1), 1–23.

McMillan, E. & Vasseur, L. (2010). Environmental education: Interdisciplinarity in action. *The International Journal of Interdisciplinary Social Sciences, 5*(3), 435–445.

Maltese, A. V., & Hochbein, C. D. (2012). The consequences of "school improvement": Examining the association between two standardized assessments measuring school improvement and student science achievement. *Journal of Research in Science Teaching. 49*(6), 804–830.

Mannion, G., & Adey, C. (2011). Place-based education is an intergenerational practice. *Children, Youth, and Environments, 21*(1). 35–58.

Miller, D., & Twum, S. (2017). The experiences of selected teachers in implementing place-based education. *In Education, 23(*1). 93–108.

Ngai, P. B., & Koehn, P. H. (2010). Indigenous studies and intercultural education: the impact of a place-based primary-school program. *Intercultural Education, 21*(6), 597–606.

Noddings, N. (2013). Curriculum for the 21st Century. In D. J. Flinders & S. J. Thornton (Eds.) *The curriculum studies reader* (4th ed., pp. 399–405). New York: NY: RoutledgeFalmer.

Peterman, K., Cranston, K. A., Pryor, M., & Kermish-Allen, R., (2015). Measuring primary students' graph interpretation skills via a performance assessment: A case study in instrument development. *International Journal of Science Education, 37*(17), 2787–2808.

Powers, A. (2004). An evaluation of four place-based education programs. *The Journal of Environmental Education, 35*(4), 17–32.

Ritchie. S. D., Wabano, M. J., Corbiere, R. G., Restoule, B. M., Russell, K. C., & Young, N. L. (2015). Connecting to the Good Life through outdoor adventure leadership experiences designed for Indigenous youth. *Journal of Adventure Education and Outdoor Learning, 15(*4), 350–370.

Roth, W.-M. (2010a). Local matters, ecojustice, and community: Opportunities of village life for teaching science. In D.J Tippins, M. P. Mueller, M. van Eijck, J. D. Adams (Eds.), *Cultural studies and environmentalism: The confluence of ecojustice, place-based (science) education, and Indigenous knowledge systems* (pp. 51–82).

Roth, W.-M. (2010b). Activism: A category for theorizing learning. *Canadian Journal of Science, Mathematics, 10*(3), 278–291.

Rural School and Community Trust. (2013). Rural trust: Who we are and what we do. Retrieved from http://www.ruraledu.org/articles.php?id=3108

Shernoff, D. J., Csikszentmihalyi, M., Schneider, B., & Shernoff, E. S. (2003). Student engagement in high school classrooms from the perspective of flow theory. *School Psychology Quarterly, 18*(2), 158–176.

Sias, C. M., Nadelson L. S., Juth, S. M., & Seifert, A. L. (2017). The best laid plans: Educational innovation in elementary teacher generated integrated STEM lesson plans. *The Journal of Educational Research, 110(*3), 227–238.

Smith, G.A. (2002). Place-based education: Learning to be where we are. *The Phi Delta Kappan 8*(83), 584–594.

Smith, G.A. (2007). Place-based education: Breaking through the constraining regularities of public school. *Environmental Education Research 13*(2), 189–207.

Smith, G. A. (2016). Michigan's Great Lakes Stewardship Initiative: A statewide, place-based education effort to connect schools to communities. *LEARNing Landscapes 10*(1), 289–306.

Sobel, D. (2013). *Place-based education: Connecting classrooms and communities.* Great Barrington, MA: Orion.

Sun, Y., Chan, R. C. K., & Chen, H., (2016). Learning with geographical sensitivity: Place-based education and its praxis. *The Professional Geographer, 68*(4), 574–583.

Theobald, P. (1997). *Teaching the commons: Place, pride, and the renewal of community.* Boulder, CO: Westview Press.

Wilson, A., & Battiste, M. (November 30, 2011). *Environmental scan of educational models supporting Aboriginal post-secondary education.* Report prepared for the Commonwealth of Australia as represented by the Department of Education, Employment and Workplace Relations, Saskatoon, SK, Canada.

Yamauchi, L. A., & Purcell, A. K. (2009) Community involvement in a place-based program for Hawaiian High School Students. *Journal of Education for Students Placed at Risk, 14*(2), 170–188.

Zimmerman, H. T., & Weible, J. (2017). Learning in and about rural places: Connections and tensions between students' everyday experiences and environmental quality issues in their community. *Cultural Studies of Science Education,* (12), 7–31.

Appendix A

Place-Based Education Project Outline

Corissa Pasiechnyk

2018/2019

What is place-based education?

- According to Rural School and Community trust, place-based education is learning that is rooted in what is local. It involves the unique history, environment, culture, and economy of a particular place. In place-based education, community provides the context for inquiry-based learning and student work focuses on problem solving relating to community needs and interests. Teaching and learning involves community members and organizations as resources and partners.

What does the research say?

The following three key findings came as a result of an extensive systematic review of the scholarly literature on place-based education.

1. Students' schooling experience is intimately affected by their own sense of place.
2. Place-based practices can enhance **student learning** in the following categories:
    - performance according to curricular learning outcomes
    - social-emotional well-being
    - thinking and learning skills (creativity, critical thinking, etc.)
    - engagement
    - improved environmental attitudes
    - sense of personal agency
    - benefits for otherwise marginalized learners (such as Indigenous, rural, or students with learning disabilities)
3. Place-based education practices can have a positive impact on students, teachers, and the larger community.

Additional benefits:

- Supports BC's redesigned Curriculum
- Offers opportunities for meaningful implementation of Core Competencies
- Aligned with Rocky Mountain School District's vision for curriculum and learning, as expressed on its website (https://www.sd6.bc.ca/Departments/Curriculum%20and%20Learning/Pages/default.aspx)
- Further develops Lindsay Park's school culture of being a "Green School"
- Can improve students' physical literacy and health
- Appropriate for authentic implementation of First People's Principles of Learning

What is my goal?

To create and implement a place-based project for the 2018/2019 school year. This curriculum will focus on highlighting our own unique local context as a school,

neighbourhood, and community and will cumulate with a real-life community project to showcase our learning.

How?

Throughout the year my class will engage in a variety of outdoor and community-based learning activities that aim to help them develop their sense of place.

- Learning about Louis Creek, the school grounds, the outdoor classroom, McDougal Park, etc. to explore our local place. Establish individual "thinking trees" to which students return throughout the year, and develop other places that are special for the group. We will draw and write in our nature notebooks about what we notice in these special places. As a class, we will agree upon names for unique places and routes on the school grounds, in the neighbourhood nearby, and down in the gully. Eventually, we will use David Sobel's (1998) techniques of mapmaking with children and mapping small places.
- Kimberley's mining **history** – could invite a guest speaker to the classroom (Bert Banks, a student's parent who works in Sparwood or similar?), visit the Heritage Museum, or visit the underground mining tour
    - http://www.kimberleysundergroundminingrailway.ca;
- Kimberley's **ecology**: plants and animals we observe in and around the school and community (ties to life-cycles) would love to have local experts in to share their knowledge
- **Water** – Learning the names of local creeks, rivers and lakes. Mark Creek Watershed, learning more about water and where it comes from, using stream science through CBEEN, lessons on macroinvertebrates, activities on pollution, teaching the water cycle, etc).
- **Environment** – work with Wildsight, nature park society, Louis Creek Trails society?
- **Ktunaxa** importance, history and uses of land – initiate elders coming to share oral stories, use Anna, creation story, potential field trip to St. Eugene? etc.
- **Geology** – learning about the mountains we can see from school and town – would like to have local a local geologist come in to teach us (Jeff Rees, Blake Rawson?). A field trip to the Butte would be so cool.
- **Civic features** - would like to spend time in the platzl learning more about this part of our community. Visiting places such as the library, museum, post office, shops, city hall (visit with mayor?), fire hall, Centre 64 (art studio), grocery store, tourist information etc. Would like to do writing and mapmaking activities in the platzl if possible.
- **Unique community features** – we have a ski-hill and golf courses, tours of the sun mine.
- **Interesting local people and parents** who might share a special skill or career.
- **Cumulative project**: with the help of one or more professional local artists, students will design artwork that represents their learning (our community) to complete the

community project of improving the Townsite skating rink. There is potential for the whole school to participate in the delivery of this project, although I would like my students (or maybe Grade 2 students) to be responsible for generating the ideas and design. This project will be supported by the city and will give our students a relevant and real-life project that will improve their community. I will apply for grants (see below) to supplement funding for this project.

Plan of Action

- School support
- Generate a budget
- Figure out specific plan (measurements, appropriate materials, etc.)
- City support – Have contacted Brett Clark, Manager of Parks and Facilities, Operations. City is excited about project. Phone conversation Jan 18, 2018.
- Apply for **grants**:
    - RDEK Grant DUE MONDAY JAN 22 2:00pm - need to explain the financial system of how the prov. Gov't and school's roles would work in this type of project. In order to get any CBT funding, they cannot replace gov't funding obligations, but they can enhance.
        - The Trust has been mandated by legislation not to relieve any level of government of its legal or financial obligations (incrementality).
        - Would like help with wording on this.
    - ArtStarts Artist in the Classroom/ contact Emily Beam at emily@artstarts.com and 1-855-292-7826 ext. 110
        - https://artstarts.com/aic
        - May 25, 2018 deadline
        - **up to $3,500** for small-scale projects and grants of **up to $10,000**for large-scale projects are available.
        - AIC grants can fund **up to 70%** of total project costs and can only cover eligible expenses.
    - ~~Columbia Kootenay Cultural Alliance (CKCA) Arts Funding to Communities Grant~~
        - ~~http://s3.amazonaws.com/onetouchsites.com/wp-content/uploads/sites/78/2014/03/15235330/CKCA-Funding-Brochure-2018-for-WEB.pdf~~
        - ~~Apply to local arts council~~
        - ~~Deadline FRIDAY MARCH 2nd, 2018~~
        - ~~$500-$2500~~
    - City Grants "in kind" – reimbursed after the fact, or Grant Application Funding which is provided up front. Kevin Wilson is contact for grant proposals.

    - CBT Recreation Infrastructure Grant Due Feb 22 – could potentially be appropriate if we wanted to
    - School funding?
    - PAC?
- Potential for collaboration with other teachers? Doreen? Others?

Rough Year Plan

Fall: will focus on learning the skills required and expected to effectively learn in flexible, outdoor environments, establishing routines, playing team-building games to build community in our classroom, and finding and naming our favourite places. We will spend time in Louis Creek, the school grounds, the outdoor classroom, McDougal Park, etc.

Winter: Year's focus will be around the BIG QUESTION What is our place? Use the above listed activities to generate a deep understanding of, and appreciation for, our local community. Integrate writing, reading, science, and math into these activities with the final task being that we will be designing public and permanent art to showcase our community.

Spring: the design and production of the art, working with local artist(s)?

Appendix B


CORE COMPETENCIES
C
Communication
1. Connect and engage with others
2. Acquire, interpret, and present information
3. Collaborate to plan, carry out, and review constructions and activities
4. Explain/recount and reflect on experiences and accomplishments
T
Creative Thinking
1. Novelty and value
2. Generating ideas
3. Developing ideas
T
Critical Thinking
1. Analyze and critique
2. Question and investigate
3. Develop and design
PS
Positive Personal & Cultural Identity
1. Relationship and cultural contexts
2. Personal values and choice
3. Personal strengths and abilities
PS
Personal Awareness & Responsibility
1. Self-determination
2. Self-regulation
3. Well-being
PS
Social Responsibility
1. Contributing to community and caring for the environment
2. Solving problems in peaceful ways
3. Valuing diversity
4. Building Relationships

Appendix C: RDEK Grant Application

COMMUNITY INITIATIVES AND AFFECTED AREAS PROGRAMS

A PROGRAM OF Columbia Basin trust

ADMINISTERED & MANAGED BY Regional District of East Kootenay

2018/2019 APPLICATION FORM

Please Read Carefully

All fields of this Application Form must be completed in full.
Incomplete applications will not be accepted.

Instructions

- Refer to the Program Guidelines for information on the Community Initiatives and Affected Programs and proposal criteria.
- If completing the application electronically, it is recommended that you use Adobe Acrobat Reader as the form may not work correctly in other PDF viewers. To download Adobe Acrobat Reader, visit https://get.adobe.com/reader/.
- Eligible applicants include registered organizations that are not-for-profit, first nations, school districts, and local government. If you are sponsoring an ineligible organization, the application form must be completed by the eligible organization.
- If you are requesting funding for a specific phase or part of a larger project, your application should focus on that phase or part. An overview of the larger project should be included as additional information.
- Up to six single-side pages or three double-side pages of additional information, including a cover letter, may be attached to the application form. Any additional pages above this limit will be removed before evaluation.
- Application deadline: 2:00 pm on Monday, January 22, 2018. Late applications will not be accepted. Applications may be submitted by hand delivery, courier, mail, facsimile, and email to:

  Attention: Corporate Services
  Regional District of East Kootenay
  19 – 24th Avenue South
  Cranbrook BC V1C 3H8
  Fax: 250-489-3498
  Email: CIPApplications@rdek.bc.ca

If you have any questions, please contact Tina Hlushak or Shannon Moskal at 250-489-2791, 1-888-478-7335 (toll-free) or CIPApplications@rdek.bc.ca.

Personal information requested on this funding application is collected under the authority of section 26(c) of the *Freedom of Information and Protection of Privacy Act* (FOIPPA) and will be used by the Regional District of East Kootenay (RDEK) or Columbia Basin Trust (the Trust) for administrative and evaluative purposes only. The collection, use and disclosure of personal information is subject to the provisions of FOIPPA.

By submitting this funding application, you hereby acknowledge that the RDEK or the Trust may disclose this application, and the information contained herein, including but not limited to your name, budget, location and the amount and nature of any related funding to the public, individuals or any other entity to the extent allowed by FOIPPA. You further agree that the RDEK or the Trust may proactively disclose to the public your name, location, amount and nature of funding granted. Any questions regarding such may be directed to: FOIPPA Inquiries, Manager, Operations, Columbia Basin Trust, Suite 300, 445-13th Ave., Castlegar, BC V1N 1G1, 1-800-505-8998.

COMMUNITY INITIATIVES AND AFFECTED AREAS PROGRAMS | A PROGRAM OF Columbia Basin trust | ADMINISTERED & MANAGED BY Regional District of East Kootenay

2018/2019 APPLICATION FORM

Section A – GENERAL INFORMATION

1. **Organization Registration #:**
2. **Project Title:** Townsite Skating Rink Student Public Art
3. **Applicant/Organization.** *Must be an eligible applicant.*
   - a) **Legal Name of Organization:** Rocky Mountain School District #6 Lindsay Park Elementary
   - b) **Mailing Address:** 602 Salmo St.
   - c) **City/Prov:** Kimberley, BC
   - d) **Postal Code:** V1A 2M8
   - e) **Main Contact for Project:** Corissa Pasiechnyk
   - f) **Telephone #:** (250) 908-0656
   - g) **Email:** corissa.pasiechnyk@sd6.bc.ca
4. **Sponsored Organization.** *Only complete if applicable.*
   - a) **Legal Name of Organization:**
   - b) **Mailing Address:**
   - c) **City/Prov:**
   - d) **Postal Code:**
   - e) **Main Contact for Project:**
   - f) **Telephone #:**
   - g) **Email:**
5. **Project Description.** *Provide a clear and brief description of your project in the space provided.*
   As a cumulative project demonstrating their learning about our unique community, Lindsay Park students will work with local professional artists to design and produce mural to decor ate the exterior of the townsite skating rink (located on 6th Ave and Moyie St.). - There will be 3 4ft x 8 ft panels that highlight our history, geography, and special community features. These murals will be permanent structures but will be designed to be able to be r emoved temporarily, or in the case of upgrades to existing infrastructure.
6. **Areas Benefitting.** *Describe the communities and rural areas that will benefit from this project.*
   The learning of young Lindsay Park students will be enhanced through participation in a "re al life" project that showcases their learning publicly, while giving them an opportunity to en gage in civic action to work collaboratively in order to improve their community. - This public art project will have immense benefit for the residents of Kimberley, who use the outdoor rink extensively in the winter. By making aesthetic improvements to the area, the ri nk may be used more often year-round.

Section B – SCREENING INFORMATION

All projects must meet the following requirements to be considered for funding under this program. All sections must be answered and details given where indicated. If you do not understand a section, call the RDEK for clarification.

1. Meets community/public needs rather than private needs. ◉ True ○ False

2. Program funds will only be used to pay for expenses incurred between June 8, 2018 and May 31, 2019. ◉ True ○ False

3. Does not relieve any level of government of its normal obligations ◉ True ○ False
(refer to Section 2 - Responsibility of Government in the Program Guidelines).
If you answer false, explain why you feel this proposal should qualify for funding:
Although this project will be completed by school students, it goes beyond the regular scop e of classroom activities. In BC, each elementary classroom teacher receives $250 for the y ear for a classroom budget to cover expenses for books and other resources. We additional ly receive $45 per student for student supplies, which they individually own and take home at the end of the year. This budget covers costs for items such as paper, pencils, markers, etc. - These two budgets are not appropriate or sufficient to cover the costs of this project.

4. Requires government approval or permit (local, provincial or federal). ○ True ◉ False
If you answered true, the approval is in place. ○ N/A ○ True ○ False
Provide details on the type of approval or permit required:
Official permits are not required, but the City of Kimberley has approved the concept of the project and has expressed interest and enthusiasm about supporting this showcase of stud ent learning in order to improve a local place for kids to play outside.

5. Does not cause environmental degradation. ◉ True ○ False

6. Does not duplicate existing local services. ◉ True ○ False
If false, provide details:

7. All partners involved in the project have been consulted. ◉ True ○ False
(If you do not have any other partners, indicate "True").

8. Does not promote religious, political or discriminating beliefs. ◉ True ○ False

9. Accurate financial records with supporting documentation and receipts will be maintained and kept. ◉ True ○ False

10. This application is being submitted by an eligible applicant. ◉ True ○ False

11. As an eligible applicant, we are sponsoring an unregistered group or private sector proposal. *(If yes, complete Section A-4).* ○ True ◉ False

Section C – EVALUATION INFORMATION

1. **Why is this project needed?** *Include the positive impacts the project will have on residents.*
Public art to improve the aesthetics of local infrastructure will benefit all residents. -
Students will take pride and ownership of an official project for their community. -
Students will be connected with community professionals and have the opportunity to partici pate in a major artistic project from start to finish. -
Students' learning will be deeper and more authentic as they learn the curriculum about wha t a community is. -
Local artists will have an opportunity to share their craft with a younger generation, to publicl

2. **Goals and Objectives.** *List the goals and objectives you hope to achieve with this project.*
Authentic student learning coupled with visual improvements to existing infrastructure in ord er to increase appreciation and use of public community spaces. -
Connecting students and classrooms to our community partners, resources, and infrastruct ure. -Student, parent, and community appreciation for and understanding of our local place.

3. **Project Schedule.** *What will be done and when?*
Fall/ Winter 2018: Students will engage in "place based education" practices to learn about t he unique features of our local place. Topics will include: mining history, geography, importa nt water features, Ktunaxa history and use of land, local plants and animals, unique commu nity features such as our ski hill, trails, golf courses, etc. -
Winter/ Spring 2019: students will work with local professional artists to design beautiful art highlighting the aforementioned elements of our place. They will collaborate on the design a nd then work collaboratively to paint. The murals will be hung no later than May 31, 2019.

4. **Project Partners and Resources.** *Identify any partners or resources that will assist you during this project or indicate "none".*
I will work with partners to build community connections for the implementation of this projec t. Lori Joe from Kimberley Youth Action Network has indicated her support of the project. -
Lindsay Park Elementary School is supportive of the project but can not offer additional fina nces. The Parent Advisory Committee will be requested. -
The City of Kimberley has indicated their support, we will be applying for a grant from the Cit y as well, but nothing has been confirmed.

5. **Funds Received or Requested from Other Sources.** *If there are no other funders, indicate "none".*

Source	Confirmed (Y/N)	Amount
City of Kimberley Grant Application will be requested	N	$ 500
Lindsay Park PAC will be requested	N	300
	TOTAL	$ 0.00

Section D – FUNDING REQUESTED

1. Enter the amount of funding you are requesting from each municipality or electoral area.

Municipalities		Electoral Areas*	
City of Cranbrook	$	Electoral Area A	$
City of Fernie	$	Electoral Area B	$
City of Kimberley	$ 3314.40	Electoral Area C	$
District of Elkford	$	Electoral Area E	$
District of Invermere	$	Electoral Area F	$
District of Sparwood	$	Electoral Area G	$
Village of Canal Flats	$		
Village of Radium Hot Springs	$		

* **Electoral Area Descriptions:** Area A (rural Elk Valley); Area B (South Country); Area C (rural Cranbrook, Moyie, Fort Steele, Bull River, Wardner); Area E (rural Kimberley, Wasa, Ta Ta Creek, Skookumchuck); Area F (rural Canal Flats to rural Invermere); Area G (Wilmer to Spillimacheen).

Section E – PROJECT BUDGET INFORMATION

1. Project Budget Summary. *List the specific budget items to show the total amount of funding required to complete the project and identify what budget items would be funded through your request from this Program. On-going operational costs are not eligible for funding. Refer to Program Guidelines for further information.*

Budget Items	Total Project Budget	Amount Requested from this Program
3 4x8 sheets of plywood $54.80 ea	$ 164.40	$ 164.40
lamination with verithane	400	400
Opus Essential Acrylic Paints $40-45 each x 7 colour	350	350
Artist wages $40/hour (estimate project 60 hrs)	2400	2400
TOTALS	$ 3314.40	$ 3314.40

Appendix D: Grant Proposal Cover Letter

Attn: Corporate Services
Regional District of East Kootenay
19 – 24 Ave. South Cranbrook, BC V1C-3H8
January, 22, 2018

To Whom It May Concern:
My name is Corissa Pasiechnyk and I am a Grade Two teacher at Lindsay Park Elementary School in Kimberley, BC. I am very interested in a model of education called Place-Based Education, which is proven to have immense benefits for students, schools, and communities. I have recently completed my MEd through the University of Victoria, where I studied the tremendous merits of place-based programming.
I understand that school projects can be problematic to fund, as the Columbia Basin Trust has a mandate to not relieve any level of government of their financial responsibilities, however I believe that this project exceeds standard government obligations and offers sufficient benefit to numerous stakeholders in order to justify this application. Although this is a curricular project, it goes beyond the scope of a typical school project, which is precisely what will make it so powerful for both students and community. As a classroom teacher, I have an annual $250 budget for all classroom resources. This amount is not sufficient to implement the type of project I am interested in. The total budget of my student art project is $3,314.40. Any contribution you can make towards this total would be greatly appreciated and will create tremendous benefits for our school and community. Please see below for key information on place-based education and my goals for my class and school for the 2018/2019 school year.

What is place-based education?

- According to Rural School and Community trust, place-based education is learning that is rooted in what is local. It involves the unique history, environment, culture, and economy of a particular place. In place-based education, community provides the context for inquiry-based learning and student work focuses on problem solving relating to community needs and interests. Teaching and learning involves community members and organizations as resources and partners.

What does the research say?

The following three key findings came as a result of an extensive systematic review of the scholarly literature on place-based education.

1. Students' schooling experience is intimately affected by their own sense of place.
2. Place-based practices enhance **student learning**.
3. Place-based education practices have a positive impact on students, teachers, and the **larger community**.

What is my goal?

- To create and implement a place-based project for the 2018/2019 school year. This curriculum will focus on highlighting our own unique local context as a school, neighbourhood, and community and will cumulate with a real-life community project showcasing our learning with a public display of art on the Townsite skating rink.

Please contact me at (250) 908-0656 at any time for additional information. Thank you very much for your time.

Sincerely,
Corissa Pasiechnyk

Appendix E
Useful Planning and Classroom Resources

BEAM math games. (n.d.). Retrieved from: https://www.dropbox.com/sh/7o6lwcgxtpl9gbk/AAB4LjR2wbMLuwI-6o_4753ua?dl=0

Citro, A. (2016). *A little bit of dirt: 55+ science and art activities to reconnect children with nature*. Woodinville, WA: The Innovative Press.

Constable, K. (2015). *The outdoor classroom in practice, Ages 3-7: A month-by-month guide to forest school provision*. New York: Routledge.

Department for Education and Skills. [web page]. (2006). Learning outside the classroom: Manifesto. Retrieved from: http://www.lotc.org.uk/wp-content/uploads/2011/03/G1.-LOtC-Manifesto.pdf

Forest and Nature School in Canada [web page]. (2014). Forest and nature school in Canada: A head, heart, and hands approach to outdoor learning. Retrieved from: http://childnature.ca/wp-content/uploads/2017/10/FSC-Guide-1.pdf

Houghton, P. & Worroll, J. (2016). *Play the forest school way: Woodland games, crafts, and skills for adventurous kids*. London: Watkins.

Project Wild [web page]. (n.d.). Growing up wild: Exploring nature with young children. Retrieved from: http://www.projectwild.org/GrowingUpWILD/about.htm

Back to Nature Network. [web page]. (n.d.). Ready… Set… Wonder! Nature prompts for the early learning and care educator. Retrieved from: http://www.ccprn.com/_documents/ReadySetWonderLR.pdf

Robertson, J. (2014). *Dirty teaching: A beginner's guide to learning outdoors.* Carmarthen, Wales: Independent Thinking Press.

Robertson, J. [web page]. (2017). Creative star learning. Retrieved from: http://creativestarlearning.co.uk

Robertson, J. (2017). *Messy maths: A playful, outdoor approach for early years*. Carmarthen, Wales: Independent Thinking Press.

Sobel, D. (1998). *Mapmaking with children: Sense of place education for the elementary years*. Portsmouth, NH: Heinemann.

Unicef [web page]. (n.d.). Teaching for children's rights: Rights, wants, and needs. Retrieved from: https://www.unicef.ca/sites/default/files/imce_uploads/rights_wants_and_needs.pdf

Woodland Trust [web page]. (n.d.). Nature detectives. Retrieved from: https://www.woodlandtrust.org.uk/mediafile/100817865/build-a-bird-nest-sheet.pdf?cb=ef4beb3e0fa540a99e23e8d5c4b1695b

Appendix F

Working List of PBE Activities

activity	Making a 3D classroom model with Cuisenaire rods
description	Build the model, ask kids to identify what it is, have them add to it. Hide pennies in the room according to stars or stickers in your model and have students go search for them based on the model map. Have students suggest things that are missing from the model, and find small items to represent them
book/resource	Sobel, Mapmaking with Children, 1998
page/ website	Pg. 25
subject	Social Studies Grade 1/2

activity	Searching for a place – finding your desk
description	Students draw maps of their classroom and use an X to indicate their desk, but do not put their names on the paper. Teacher reassigns papers to students who need to find the desk marked with an X.
book/resource	Sobel, Mapmaking with Children, 1998
page/ website	Pg. 28
subject	Social Studies Grade 1/2

activity	Searching for a place – Hide a penny
description	Everyone gets a penny to hide. Choose a limited area such as part of the playground. Everyone gets about 2 minutes to hide their penny and then about 10 minutes to draw a map showing its location. It can have words, arrows, number of steps, etc. On the map, the penny should be drawn as a circle with the date of their penny to make sure it is the correct one. Once all pennies are found, bring the class together to discuss what helped and what makes it challenging. Based on this conversation you can come up with some guidelines such as: ·Labels help Showing a picture of how something looks is good Big things should be big and little things should be little You should only show things that are always there It helps to show the right number of things

book/resource	Sobel, Mapmaking with Children, 1998
page/ website	Pg. 29
subject	Social Studies Grade 1/2

activity	Mapping a route from home to school
description	Have kids draw separate pictures of the following: home, school, the car/bus/bike you take to school or yourself walking with whomever you walk with, 2 important places you notice, two scary or dangerous places you pass. Next, have them cut out the drawings and arrange home and school on opposite ends, then add in roads and trails thinking about corners and turns, then think about sequence and distance and add in the 4 significant places, then add in yourself travelling to or from school. Extension: create a class bulletin board with the school in the center and have students create their routes onto this class map of the community.
book/resource	Sobel, Mapmaking with Children, 1998
page/ website	Pg. 32
subject	Social Studies Grade 1/2

activity	Hunting for Treasure in School Yard
description	Teacher draws a panoramic map reminiscent of the map of 100 acre wood in Winnie the Pooh. Choose a final hiding place for your treasure that you draw out, enlarged, then cut into rectangular puzzle pieces. Hide pieces of the puzzle in hard but not too hard locations that are indicated on the map. As a class search for the different locations on the map and then eventually open the treasure together as a class.
book/resource	Sobel, Mapmaking with Children, 1998
page/ website	Pg. 36
subject	Social Studies Grade 1/2

activity	Faces of the Neighbourhood
description	As a class, make an emergent bulletin board of a community neighbourhood (perhaps the platzl). Class should brainstorm a list of prominent buildings in the area (enough for one building per student) and then on a class field trip, students will sketch their building. When they come back to school they will make a large drawing of their building (12x18

	inches) and then mount it on a box or on stiff paper folded to give the building depth. The teacher will support the class to create an accurate map on the bulletin board, by drawing roads and locating certain landmarks to help orient the students. After buildings are complete, assemble the bulletin board and discuss what else is necessary to make it resemble our community (people, dogs, shop keepers, etc).
book/resource	Sobel, Mapmaking with Children, 1998
page/ website	Pg. 48
subject	Social Studies Grade 2/3

activity	A child designed model of the neighbourhood grades 2/3
description	Complete a similar activity but give the students more responsibility in terms of planning the scale and coming up with ideas and organization. Encouraged accurate scale and relative size. Students can create a 3D model
book/resource	Sobel, Mapmaking with Children, 1998
page/ website	Pg. 49
subject	Social Studies Grade 2/3

activity	A SOUND MAP & more ***
description	Use natural objects from the landscape in the artwork and mapping created. “if we’re going to show this trail on our map, then lets collect mud to paint it on the map.” *“I want you to walk down this lane silently and make notes of all the things you hear. Anything and all things. Loud sounds and soft sounds. I want you to collect enough sounds so that we can make a sound map of this place. That way, when people look at our map, they’ll be able to hear in their minds what it would sound like to walk down this lane. But don’t just write down boring things like bird, wind, leaves, Try and capture what it really sounds like.”* *On the way back:* *“Now I want you to find things around you that we can use to mark or color on the map. For instance, if we’re going to paint this little stream on the map, then we should collect stream water to mix with our water color paints.* Create a communal map with the collected sounds written along the trail as a poem. Use found objects to represent different places, and potentially dye the paper.
book/resource	Sobel, Mapmaking with Children, 1998
page/ website	Pg. 50

subject	Social Studies Grade 2/3

activity	Drawing enlargements and reductions to introduce scale
description	Using a grid, teach students to enlarge a simple drawing by thinking about where the lines of the drawing intersect with the larger grid.
book/resource	Sobel, Mapmaking with Children, 1998
page/ website	Pg.53
subject	Social Studies Grade ⅔ Math ⅔

Activity 1 of 2	Imaginary worlds: Islands
description	Have students construct their own fantasy worlds from plasticine or clay on top of plywood. Provide criteria such that each island must have: A harbor A beach Cliffs Six houses A pond Some roads connecting the houses A small forest
book/resource	Sobel, Mapmaking with Children, 1998
page/ website	Pg. 56
subject	Social Studies Language Arts Art 2/3

Activity 2 of 2	Imaginary Worlds: Micropark
description	Working outside you can have your students create microparks. Give each group of children 6 feet of string that they will mark off their own park, 8 mini flags made of toothpicks and paper, and a mini person (lego size). Each park should include: Clear boundaries An entrance gate A nature trail with stations indicated by flags (3 for flora and fauna, 3 for physical challenges, 2 for special views).

	A bridge constructed of natural materials A stream or river A picnic area A name for their park After groups have made their parks, they should visit each other's parks and have their play people take the other people for guided nature walks and tours of the parks. After completing either of the above imaginary worlds, have students create freehand maps of their worlds using labels, names, symbols for certain elements. Encourage attention to relative size of actual map and drawings. Or, as a challenge, you can have older children use a grid frame to introduce accurate, mathematical mapping.
book/resource	Sobel, Mapmaking with Children, 1998
page/ website	Pg. 57
subject	Social Studies Language Arts Art 2/3

activity	Circle Introductory Activities
description	Sticky Circles "Sticky feet", "sticky elbows" "Sticky tips" (arms outstretched and fingertips touching) "Sticky shoulders" (group huddle great being able to listen/hear for windy or cold days)
book/resource	Robertson, J. Dirty Teaching: A Beginner's Guide to Teaching Outdoors, 2014.
page/ website	Pg. 47
subject	PE
Curricular connections	Team building, cooperation, ball skills, etc

activity	Circle Introductory Activities
description	Follow my leader: Class sits in a circle and a student is chosen to be a detective, she closes her eyes while you choose a leader. She turns around and tries to figure out the leader changing the activities, such as clapping, miming brushing your hair, etc.

book/resource	Robertson, J. Dirty Teaching: A Beginner's Guide to Teaching Outdoors, 2014.
page/ website	Pg. 47
subject	PE
Curricular connections	Team building, cooperation, ball skills, etc

activity	Circle Introductory Activities
description	Circle Pass Passing a ball around the cirlce without dropping and without grasping the ball (open palm face up)
book/resource	Robertson, J. Dirty Teaching: A Beginner's Guide to Teaching Outdoors, 2014.
page/ website	Pg. 49
subject	PE
Curricular connections	Team building, cooperation, ball skills, etc

activity	Circle Introductory Activities
description	Circle the circle - use hula hoops to pass through students bodies like a chain without letting go of hands. Time students to make it around the circle as quick as possible - add other hoops to make it challenging.
book/resource	Robertson, J. Dirty Teaching: A Beginner's Guide to Teaching Outdoors, 2014.
page/ website	Pg. 49
subject	PE
Curricular connections	Team building, cooperation, ball skills, etc

activity	Circle Introductory Activities
description	Everybody Up! - Everyone sits in a circle holding hands. On the count of 3 everyone tries to get up without breaking hands.

book/resource	Robertson, J. Dirty Teaching: A Beginner's Guide to Teaching Outdoors, 2014.
page/ website	Pg. 50
subject	PE
Curricular connections	Team building, cooperation, ball skills, etc

activity	Circle Introductory Activities
description	Circle slap - need a smooth, dry surface. Students lie on tummies facing in, with arms outstretched and crossing over their neighbours. The person who starts the game lifts their right hand and slaps the ground. The hand that comes next (the left hand of the second person to the right of the starter should slap, then the right hand of the person next to the starter slaps and the slapping continues around the circle. Can add extra rules such as 2 slaps reverses the order, etc.
book/resource	Robertson, J. Dirty Teaching: A Beginner's Guide to Teaching Outdoors, 2014.
page/ website	Pg. 50
subject	PE
Curricular connections	Team building, cooperation, ball skills, etc

activity	Circle Introductory Activities
description	Fox and Squirrels - 3 soft balls, two similar (fox) and one smaller (squirrel) Aim is to catch the squirrel by tagging whoever is holding the squirrel ball with the fox ball. Stand in a circle and pass the fox balls from player to player - encourage speed, and switching direction of travel, etc. next introduce the squirrel ball. The fox balls can only travel around the circle, but the squirrel ball can be thrown across the circle. Have kids call out FOX or SQUIRREL when they pass one of the balls.
book/resource	Robertson, J. Dirty Teaching: A Beginner's Guide to Teaching Outdoors, 2014.
page/ website	Pg. 50
subject	PE
Curricular	Team building, cooperation, ball skills, etc

Appendix G

British Columbia Grade Two Curriculum, 2018

Outcomes highlighted in green and yellow can be easily taught using place-based pedagogies

Type	Content	Curriculum	Elaboration	Curricular Competency Group
Big Ideas	Designs grow out of natural curiosity.	Applied Design, Skills and Technologies 2		
Big Ideas	Skills can be developed through play.	Applied Design, Skills and Technologies 2		
Big Ideas	Technologies are tools that extend human capabilities.	Applied Design, Skills and Technologies 2		
Curricular Competency	**Ideating** • Identify needs and opportunities for designing, through exploration • Generate ideas from their experiences and interests • Add to others' ideas • Choose an idea to pursue.	Applied Design, Skills and Technologies 2	forming ideas or concepts	
Curricular Competency	Making • Choose tools and materials • Make a **product** using known procedures or through modelling of others • Use trial and error to make changes, solve problems, or incorporate new ideas from self or others	Applied Design, Skills and Technologies 2	for example, a physical product, a process, a system, a service, or a designed environment	
Curricular Competency	Sharing • Decide on how and with whom to **share** their product • Demonstrate their product, tell the story of designing and making their product, and explain how their product contributes to the individual, family, community, and/or environment	Applied Design, Skills and Technologies 2	may include showing to others, use by others, giving away, or marketing and selling	

Type	Content	Curriculum	Elaboration	Curricular Competency Group
	• Use personal preferences to evaluate the success of their design solutions • Reflect on their ability to work effectively both as individuals and collaboratively in a group			
Curricular Competency	Use materials, tools, and technologies in a safe manner in both physical and digital environments	Applied Design, Skills and Technologies 2		
Curricular Competency	Develop their skills and add new ones through play and collaborative work	Applied Design, Skills and Technologies 2		
Curricular Competency	Explore the use of simple, available tools and **technologies** to extend their capabilities	Applied Design, Skills and Technologies 2	things that extend human capabilities (e.g., scissors)	

Type	Content	Curriculum	Elaboration	Curricular Competency Group
Big Ideas	Creative expression develops our unique identity and voice.	Arts Education 2		
Big Ideas	Inquiry through the **arts** creates opportunities for **risk taking**.	Arts Education 2	includes but is not limited to the four disciplines of dance, drama, music, and visual arts, making an informed choice to do something where unexpected outcomes are acceptable and serve as learning opportunities	
Big Ideas	Dance, drama, music, and visual arts are each unique languages for creating and communicating.	Arts Education 2		
Big Ideas	People connect to the	Arts	includes but is not limited to the	

Type	Content	Curriculum	Elaboration	Curricular Competency Group
	hearts and minds of others in a variety of places and times through the **arts**.	Education 2	four disciplines of dance, drama, music, and visual arts	
Content	elements in the arts, including but not limited to: • **dance**: **body**, **space**, **dynamics (dance)**, **time**, **relationships**, **form** • drama: **character**, time, place, plot, tension • music: beat/pulse, **duration**, **rhythm (music)**, **tempo**, **pitch**, **timbre**, **dynamics (music)**, **form (music)**, **texture** • visual arts: elements of design: **line**, **shape**, **texture**, colour, **form (visual arts)**; **principles of design**: **pattern**, **repetition**, **rhythm (visual arts)**, contrast	Arts Education 2	the elements of dance are universally present in all dance forms and grow in sophistication over time, what the body is doing, including whole or partial body action, types of movement (locomotor and non-locomotor), etc., where the body is moving, including place, level, direction, pathway, size/reach, shape, etc., how energy is expended and directed through the body in relation to time (quick/sustained), weight (strong/light), space (direct/indirect), and flow (free/bound), how the body moves in relation to time, including beat (underlying pulse), tempo, and rhythmic patterns, with whom or what the body is moving; movement happens in a variety of relationship including pairs, groups, objects, and environments, The shape or structure of a dance; the orderly arrangement of thematic material. For example: phrase, beginning, middle, end, ABA, canon, call and response, narrative, abstract, in drama, taking on and exploring the thoughts, perceptions, feelings, and beliefs of another, the length of a sound or silence in relation	

Type	Content	Curriculum	Elaboration	Curricular Competency Group
			to the beat (e.g., shorter, longer, equal), the arrangement of sounds and silences over time, the frequency or speed of the beat, how high or low a note is (e.g., direction of a melody), the characteristic quality of a sound independent of pitch and dynamics; tone colour, the level of loudness, softness, or changing volume of music (e.g., louder, softer), the structure of a musical work (e.g., AB form; same/different phrases), the way something feels (e.g., smooth, rough, fuzzy), e.g., thick, thin, wavy, zigzag, jagged, etc., 2-dimensional enclosed space, as compared to form which is 3-dimensional, the visual element that pertains to an actual or implied three-dimensional shape of an image; visual art forms can be geometric (e.g., sphere, cube, pyramid) or organic (e.g., animal forms), the planned use of the visual elements to achieve a desired effect, a design in which shapes, colours or lines repeat with regularity, using the same object, colour, marking, or type of line more than once, the combination of pattern and movement to create a feeling of organized energy	
Content	processes, materials, **technologies**, tools, and techniques to support arts activities	Arts Education 2	includes both manual and digital technologies (e.g., electronic media, production elements, information technology, sound equipment and recording	

Type	Content	Curriculum	Elaboration	Curricular Competency Group
			technologies, etc.); in visual arts, any visual image-making technology (e.g., paintbrush, scissors, pencil, stamp) and includes the improvisational use of miscellaneous items	
Content	**notation** to represent sounds, ideas, and movement	Arts Education 2	any written, visual, or kinetic form of representing music compositions; for example, a simplified version of standard musical notation could be introduced (e.g., a three-lined musical staff instead of five-lined) ; in dance, this can include written formal and informal systems of symbols, shapes, and lines that represent body position and movement	
Content	a variety of **dramatic forms**	Arts Education 2	a medium for the expression of dramatic meaning (e.g., improvisation, tableau, role-play, mime, readers theatre, story theatre); may involve the integration of a variety of media and a combination of the arts	
Content	**symbolism** as a means of expressing specific meaning	Arts Education 2	use of objects, words, or actions to represent abstract ideas; includes but is not limited to colours, images, movements, and sounds (e.g., family can be represented with connected shapes, similar timbres, or collaborative movement)	
Content	traditional and contemporary **Aboriginal arts** and arts-making processes	Arts Education 2	dances, songs, stories, and objects created by Aboriginal peoples for use in daily life or to serve a purpose inspired by ceremonies as part of cultural tradition	

Type	Content	Curriculum	Elaboration	Curricular Competency Group
Content	a variety of local **works of art** and artistic traditions from diverse cultures, communities, times, and places	Arts Education 2	the results of creative processes in disciplines such as dance, drama, music, and visual arts	
Content	**personal and collective responsibility** associated with creating, experiencing, or sharing in a safe learning environment	Arts Education 2	ensuring the physical and emotional safety of self and others when engaging in the arts; being considerate of sensitive content, facilities, and materials	
Curricular Competency	Explore **elements**, processes, materials, movements, technologies, tools, and techniques of the arts	Arts Education 2	characteristics of dance, drama, music, and visual art	Exploring and creating
Curricular Competency	Create artistic works collaboratively and as an individual using ideas inspired by imagination, inquiry, experimentation, and **purposeful play**	Arts Education 2	learning that uses real-life and/or imaginary situations to engage and challenge learners' thinking. Through planned purposeful play, students express their natural curiosity while exploring the world around them. It also provides a means for high-level reasoning and problem solving in a variety of ways	Exploring and creating
Curricular Competency	Explore personal experience, community, and culture through arts activities	Arts Education 2		Exploring and creating
Curricular Competency	Observe and share how **artists** (dancers, actors, musicians, and visual artists) use processes, materials, movements, technologies, tools, and techniques	Arts Education 2	people who create works in any of the arts disciplines (e.g., dancers, actors, musicians, visual artists); also includes the students themselves	Reasoning and reflecting
Curricular Competency	Develop processes and technical skills in a	Arts Education 2	mediums of creative or artistic expression, such as painting,	Reasoning and reflecting

Type	Content	Curriculum	Elaboration	Curricular Competency Group
	variety of art forms to refine artistic abilities		sculpture, plays, improvisations, dances, songs, and performances	
Curricular Competency	Reflect on **creative processes** and make connections to other experiences	Arts Education 2	the means by which an artistic work (in dance, drama, music, or visual arts) is made; includes but is not limited to exploration, selection, combination, refinement, and reflection	Reasoning and reflecting
Curricular Competency	Interpret symbolism and how it can be used to express meaning through the arts	Arts Education 2		Communicating and documenting
Curricular Competency	Express feelings, ideas, stories, observations, and experiences through creative works	Arts Education 2		Communicating and documenting
Curricular Competency	Describe and respond to works of art	Arts Education 2		Communicating and documenting
Curricular Competency	Experience, **document** and **share** creative works in a variety of ways	Arts Education 2	activities that help students reflect on their learning (e.g., through drawing, painting, journaling, taking pictures, making video clips or audio-recordings, constructing new works, compiling a portfolio), includes any form of presentation as outlined in the Connecting, Creating, Presenting, and Responding in Arts Education resource	Communicating and documenting
Curricular Competency	Demonstrate increasingly sophisticated application and/or engagement of curricular content	Arts Education 2		Communicating and documenting

Type	Content	Curriculum	Elaboration	Curricular Competency Group
Big Ideas	Confidence develops through the process of self-discovery.	Career Education 2		
Big Ideas	Strong communities are the result of being connected to family and community and working together toward common goals.	Career Education 2		
Big Ideas	Effective collaboration relies on clear, respectful communication.	Career Education 2		
Big Ideas	Everything we learn helps us to develop skills.	Career Education 2		
Big Ideas	Communities include many different roles requiring many different skills.	Career Education 2		
Big Ideas	Learning is a lifelong enterprise.	Career Education 2		
Content	**Personal Development** • **goal-setting strategies** • **risk taking** and its role in self-exploration	Career Education 2	Examples: • Identify steps required to help achieve short-term goals • Identify sources of support at home, at school, and in the community , Examples: • Try a new activity • Make a new friend • Volunteer to ask/answer a question • Speak in front of others	
Content	**Connections to Community** • **cultural and social awareness** • roles and responsibilities at home, at school, and in the local	Career Education 2	achieved by exploring self-identity, acknowledging cultural differences, honouring indigenous traditions	

Type	Content	Curriculum	Elaboration	Curricular Competency Group
	community • jobs in the local community			
Curricular Competency	Identify and appreciate their personal attributes, skills, interests, and accomplishments	Career Education 2		
Curricular Competency	Recognize the importance of positive relationships in their lives	Career Education 2		
Curricular Competency	Share ideas, information, personal feelings, and knowledge with others	Career Education 2		
Curricular Competency	Work respectfully and constructively with others to achieve common goals	Career Education 2		
Curricular Competency	Recognize the importance of learning in their lives and future careers	Career Education 2		
Curricular Competency	Set and achieve realistic learning goals for themselves	Career Education 2		
Curricular Competency	Identify and appreciate the roles and responsibilities of people in their schools, families, and communities	Career Education 2		
Curricular Competency	Demonstrate **effective work habits** and organizational skills appropriate to their level of development	Career Education 2	include completing assignments and staying on task	
Curricular Competency	Recognize the basic skills required in a variety of jobs in the community	Career Education 2		

Type	Content	Curriculum	Elaboration	Curricular Competency Group
Big Ideas	Language and **story** can be a source of creativity and joy.	English Language	narrative texts, whether real or imagined, that teach us about	

Type	Content	Curriculum	Elaboration	Curricular Competency Group
		Arts 2	human nature, motivation, and experience, and often reflect a personal journey or strengthen a sense of identity. They may also be considered the embodiment of collective wisdom. Stories can be oral, written, or visual, and used to instruct, inspire, and entertain listeners and readers.	
Big Ideas	**Stories** and other **texts** connect us to ourselves, our families, and our communities.	English Language Arts 2	narrative texts, whether real or imagined, that teach us about human nature, motivation, and experience, and often reflect a personal journey or strengthen a sense of identity. They may also be considered the embodiment of collective wisdom. Stories can be oral, written, or visual, and used to instruct, inspire, and entertain listeners and readers., *Text* and *texts* are generic terms referring to all forms of oral, written, visual, and digital communication: • Oral texts include speeches, poems, plays, and oral stories. • Written texts include novels, articles, and short stories. • Visual texts include posters, photographs, and other images. • Digital texts include electronic forms of all the above. • Oral, written, and visual elements can be combined (e.g., in dramatic presentations, graphic novels, films, web pages, advertisements).	

Type	Content	Curriculum	Elaboration	Curricular Competency Group
Big Ideas	Everyone has a unique **story** to share.	English Language Arts 2	narrative texts, whether real or imagined, that teach us about human nature, motivation, and experience, and often reflect a personal journey or strengthen a sense of identity. They may also be considered the embodiment of collective wisdom. Stories can be oral, written, or visual, and used to instruct, inspire, and entertain listeners and readers.	
Big Ideas	Through listening and speaking, we connect with others and share our world.	English Language Arts 2		
Big Ideas	Playing with language helps us discover how language works.	English Language Arts 2		
Big Ideas	Curiosity and wonder lead us to new discoveries about ourselves and the world around us.	English Language Arts 2		
Content	Story/text • **elements of story** • **literary elements and devices** • **text features** • **vocabulary associated with texts**	English Language Arts 2	character, plot, setting, structure (beginning, middle, end), and dialogue, language, poetic language, figurative language, sound play, images, colour, symbols, how text and visuals are displayed (e.g., colour, arrangement, and formatting features such as bold, underline), book, page, chapter, author, title, illustrator, web page, website, search box, headings, table of contents, pictures, and diagrams	
Content	Strategies and processes • **reading strategies** • **oral language strategies** • **metacognitive strategies**	English Language Arts 2	using illustrations and prior knowledge to predict meaning; rereading; retelling in own words; locating the main idea and details; using knowledge of	

Type	Content	Curriculum	Elaboration	Curricular Competency Group
	• **writing processes**		language patterns and phonics to decode words; identifying familiar and "sight" words; monitoring (asking: Does it look right? Sound right? Make sense?); self-correcting errors consistently using three cueing systems: meaning, structure, and visual, asking questions to clarify, expressing opinions, speaking with expression, taking turns, and connecting with audience, talking and thinking about learning (e.g., through reflecting, questioning, goal setting, self-evaluating) to develop awareness of self as a reader and as a writer, may include revising, editing, considering audience	
Content	Language features, structures, and conventions • **features of oral language** • word patterns, word families • **letter formation** • **sentence structure** • **conventions**	English Language Arts 2	including tone, volume, inflection, pace, gestures, legible printing with spacing between words, the structure of compound sentences, common practices in punctuation (e.g., the use of a period or question mark at end of sentence) and in capitalization (e.g., capitalizing the first letter of the first word at the start of a sentence, people's names, and the pronoun *I*)	
Curricular Competency	**Read fluently at grade level**	English Language Arts 2	reading with comprehension, phrasing, and attention to punctuation	Comprehend and connect (reading, listening, viewing)
Curricular Competency	Use sources of information and **prior knowledge** to make meaning	English Language Arts 2	personal stories and experiences	Comprehend and connect (reading,

Type	Content	Curriculum	Elaboration	Curricular Competency Group
				listening, viewing)
Curricular Competency	Use developmentally appropriate **reading, listening, and viewing strategies** to make meaning	English Language Arts 2	examples include making predictions, making connections, making simple inferences, asking questions, engaging in conversation with peers and adults, showing respect for the contribution of others	Comprehend and connect (reading, listening, viewing)
Curricular Competency	Recognize how different **text structures** reflect different purposes.	English Language Arts 2	examples include letters, recipes, maps, lists, web pages	Comprehend and connect (reading, listening, viewing)
Curricular Competency	**Engage actively as listeners, viewers, and readers**, as appropriate, to develop understanding of self, identity, and community	English Language Arts 2	being open-minded to differences; connecting to personal knowledge, experiences, and traditions; participating in community and cultural traditions and practices; asking meaningful questions; using active listening; and asking and answering *what if, how*, and *why* questions in narrative and non-fiction text	Comprehend and connect (reading, listening, viewing)
Curricular Competency	Demonstrate awareness of the role that **story** plays in personal, family, and community identity	English Language Arts 2	narrative texts, whether real or imagined, that teach us about human nature, motivation, and experience, and often reflect a personal journey or strengthen a sense of identity. They may also be considered the embodiment of collective wisdom. Stories can be oral, written, or visual, and used to instruct, inspire, and entertain listeners and readers.	Comprehend and connect (reading, listening, viewing)
Curricular Competency	Use personal experience and knowledge to connect to **stories** and other **texts** to	English Language Arts 2	narrative texts, whether real or imagined, that teach us about human nature, motivation, and	Comprehend and connect (reading,

Type	Content	Curriculum	Elaboration	Curricular Competency Group
	make meaning		experience, and often reflect a personal journey or strengthen a sense of identity. They may also be considered the embodiment of collective wisdom. Stories can be oral, written, or visual, and used to instruct, inspire, and entertain listeners and readers., *Text* and *texts* are generic terms referring to all forms of oral, written, visual, and digital communication: • Oral texts include speeches, poems, plays, and oral stories. • Written texts include novels, articles, and short stories. • Visual texts include posters, photographs, and other images. • Digital texts include electronic forms of all the above. • Oral, written, and visual elements can be combined (e.g., in dramatic presentations, graphic novels, films, web pages, advertisements).	listening, viewing)
Curricular Competency	Recognize the structure and elements of **story**	English Language Arts 2	narrative texts, whether real or imagined, that teach us about human nature, motivation, and experience, and often reflect a personal journey or strengthen a sense of identity. They may also be considered the embodiment of collective wisdom. Stories can be oral, written, or visual, and used to instruct, inspire, and entertain listeners and readers.	Comprehend and connect (reading, listening, viewing)

Type	Content	Curriculum	Elaboration	Curricular Competency Group
Curricular Competency	Show awareness of how **story in First Peoples cultures** connects people to family and community	English Language Arts 2	Traditional and contemporary First Peoples stories take many forms (e.g., prose, song, dance, poetry, theatre, carvings, pictures) and are told for several purposes: • teaching (e.g., life lessons, community responsibilities, rites of passage) • sharing creation stories • recording personal, family, and community histories • "mapping" the geography and resources of an area • ensuring cultural continuity (e.g., knowledge of ancestors, language) • healing • entertainment • (from *In Our Own Words: Bringing Authentic First Peoples Content to the K–3 Classroom,* FNESC/FNSA, 2012)	Comprehend and connect (reading, listening, viewing)
Curricular Competency	**Exchange ideas and perspectives** to build shared understanding	English Language Arts 2	taking turns in offering ideas related to the topic at hand, engaging in conversation with peers and adults, and showing respect for the contributions of others	Create and communicate (writing, speaking, representing)
Curricular Competency	Create **stories** and other **texts** to deepen awareness of self, family, and community	English Language Arts 2	narrative texts, whether real or imagined, that teach us about human nature, motivation, and experience, and often reflect a personal journey or strengthen a sense of identity. They may also be considered the embodiment of collective wisdom. Stories	Create and communicate (writing, speaking, representing)

Type	Content	Curriculum	Elaboration	Curricular Competency Group
			can be oral, written, or visual, and used to instruct, inspire, and entertain listeners and readers., *Text* and *texts* are generic terms referring to all forms of oral, written, visual, and digital communication: • Oral texts include speeches, poems, plays, and oral stories. • Written texts include novels, articles, and short stories. • Visual texts include posters, photographs, and other images. • Digital texts include electronic forms of all the above. • Oral, written, and visual elements can be combined (e.g., in dramatic presentations, graphic novels, films, web pages, advertisements).	
Curricular Competency	Plan and create a variety of **communication forms** for different purposes and audiences	English Language Arts 2	examples include personal writing, letters, poems, multiple-page stories, simple expository text that is non-fiction and interest-based, digital presentations, oral presentations, visuals, dramatic forms used to communicate ideas and information	Create and communicate (writing, speaking, representing)
Curricular Competency	Communicate using sentences and most conventions of Canadian spelling, grammar, and punctuation	English Language Arts 2		Create and communicate (writing, speaking, representing)
Curricular Competency	Explore **oral storytelling processes**	English Language	creating an original story or finding an existing story (with	Create and communicate

Type	Content	Curriculum	Elaboration	Curricular Competency Group
		Arts 2	permission), sharing the story from memory with others, using vocal expression to clarify the meaning of the text	(writing, speaking, representing)

Type	Content	Curriculum	Elaboration

Big Ideas	**Numbers** to 100 represent quantities that can be decomposed into 10s and 1s.	Mathematics 2	• Number: Number represents and describes quantity.
			• *Sample questions to support inquiry with students:*
			  ○ How does understanding 5 or 10 help us think about other numbers?
			  ○ What is the relationship between 10s and 1s?
			  ○ What patterns do you notice in numbers?
			  ○ What stories live in numbers?
			  ○ How do numbers help us communicate and think about place?
			  ○ How do numbers help us communicate and think about ourselves?

Big Ideas	Development of computational **fluency** in addition and subtraction with numbers to 100 requires an understanding of place value.	Mathematics 2	• Computational Fluency: Computational fluency develops from a strong sense of number.
			• *Sample questions to support inquiry with students:*
			  ○ What is the relationship between addition and subtraction?
			  ○ How can you use addition to help you subtract?
			  ○ How does understanding 10 help us to add and subtract two-digit numbers?

Big Ideas	The regular change in increasing **patterns** can be identified and used to make generalizations.	Mathematics 2	• Patterning: We use patterns to represent identified regularities and to make generalizations.
			• *Sample questions to support inquiry with students:*
			  ○ How can we represent patterns in different ways/modes?
			  ○ How can you create repeating patterns with objects that are all one colour?
			  ○ What stories live in patterns?

Big Ideas	Objects and shapes have **attributes** that can be described, measured, and compared.	Mathematics 2	• Geometry and Measurement: We can describe, measure, and compare spatial relationships.
			• *Sample questions to support inquiry with students:*
			  ○ What 2D shapes live in objects in our world?
			  ○ How can you combine shapes to make new shapes?

Big Ideas	Concrete items can be represented, compared, and interpreted pictorially in **graphs**.	Mathematics 2	• Data and Probability: Analyzing data and chance enables us to compare and interpret.
			• *Sample questions to support inquiry with students:*
			  ○ When you look at this graph, what do you notice? What do you wonder?
			  ○ How do graphs help us understand data?
			  ○ What are some different ways to represent data pictorially?

Content	**number concepts** to 100	Mathematics 2	• counting:
			  ○ skip-counting by 2, 5, and 10:
			  ▪ using different starting points
			  ▪ increasing and decreasing (forward and backward)
			• Quantities to 100 can be arranged and recognized:
			  ○ comparing and ordering numbers to 100
			  ○ benchmarks of 25, 50, and 100
			  ○ place value:
			  ▪ understanding of 10s and 1s
			  ▪ understanding the relationship between digit places and their value, to 99 (e.g., the digit 4 in 49 has the value of 40)
			  ▪ decomposing two-digit numbers into 10s and 1s
			• even and odd numbers

Content	**benchmarks** of 25, 50, and 100 and personal referents	Mathematics 2	• seating arrangements at ceremonies/feasts
Content	addition and subtraction **facts to 20** (introduction of computational strategies)	Mathematics 2	• adding and subtracting numbers to 20 • fluency with math strategies for addition and subtraction (e.g., making or bridging 10, decomposing, identifying related doubles, adding on to find the difference)

Content	**addition and subtraction to 100**	Mathematics 2	• decomposing numbers to 100 • estimating sums and differences to 100 • using strategies such as looking for multiples of 10, friendly numbers (e.g., 48 + 37, 37 = 35 + 2, 48 + 2 = 50, 50 + 35 = 85), decomposing into 10s and 1s and recomposing (e.g., 48 + 37, 40 + 30 = 70, 8 +7 = 15, 70 +15 = 85), and compensating (e.g., 48 + 37, 48 +2 = 50, 37 – 2 = 35, 50 + 35 = 80) • adding up to find the difference • using an open number line, hundred chart, ten-frames • using addition and subtraction in real-life contexts and problem-based situations • whole-class number talks
Content	repeating and increasing **patterns**	Mathematics 2	• exploring more complex repeating patterns (e.g., positional patterns, circular patterns) • identifying the core of repeating patterns (e.g., the pattern of the pattern that repeats over and over) • increasing patterns using manipulatives, sounds, actions, and numbers (0 to 100) • Métis finger weaving • First Peoples head/armband patterning • online video and text: *Small Number Counts to 100* (mathcatcher.irmacs.sfu.ca/story/small-number-counts-100)
Content	**change in quantity**, using pictorial and symbolic representation	Mathematics 2	• numerically describing a change in quantity (e.g., for 6 + n = 10, visualize the change in quantity by using ten-frames, hundred charts, etc.)
Content	symbolic representation of equality and inequality	Mathematics 2	
Content	**direct linear measurement**, introducing standard metric units	Mathematics 2	• centimetres and metres • estimating length • measuring and recording length, height, and width, using standard units

Content	multiple attributes of **2D shapes and 3D objects**	Mathematics 2	• sorting 2D shapes and 3D objects, using two attributes, and explaining the sorting rule • describing, comparing, and constructing 2D shapes, including triangles, squares, rectangles, circles • identifying 2D shapes as part of 3D objects • using traditional northwest coast First Peoples shapes (ovoids, U, split U, and local art shapes) reflected in the natural environment
Content	**pictorial representation** of concrete graphs, using one-to-one correspondence	Mathematics 2	• collecting data, creating a concrete graph, and representing the graph, using a pictorial representation through grids, stamps, drawings • one-to-one correspondence
Content	likelihood of **familiar life events**, using comparative language	Mathematics 2	• using comparative language (e.g., certain, uncertain; more, less, or equally likely)
Content	**financial literacy** — coin combinations to 100 cents, and spending and saving	Mathematics 2	• counting simple mixed combinations of coins to 100 cents • introduction to the concepts of spending and saving, integrating the concepts of wants and needs • role-playing financial transactions (e.g., using bills and coins)
Curricular Competency	Use reasoning to explore and make connections	Mathematics 2	
Curricular Competency	**Estimate reasonably**	Mathematics 2	• estimating by comparing to something familiar (e.g., more than 5, taller than me)
Curricular Competency	Develop **mental math strategies** and abilities to make sense of quantities	Mathematics 2	• working toward developing fluent and flexible thinking about number

Curricular Competency	Use **technology** to explore mathematics	Mathematics 2	• calculators, virtual manipulatives, concept-based apps
Curricular Competency	**Model** mathematics in contextualized experiences	Mathematics 2	• acting it out, using concrete materials, drawing pictures
Curricular Competency	Develop, demonstrate, and apply mathematical understanding through play, inquiry, and problem solving	Mathematics 2	
Curricular Competency	Visualize to explore mathematical concepts	Mathematics 2	
Curricular Competency	Develop and use **multiple strategies** to engage in problem solving	Mathematics 2	• visual, oral, play, experimental, written, symbolic
Curricular Competency	Engage in problem-solving experiences that are **connected** to place, story, cultural practices, and perspectives relevant to local First Peoples communities, the local community, and other cultures	Mathematics 2	• in daily activities, local and traditional practices, the environment, popular media and news events, cross-curricular integration • Have students pose and solve problems or ask questions connected to place, stories, and cultural practices. • Elder communication to explain harvest traditions and sharing practices

Curricular Competency	**Communicate** mathematical thinking in many ways	Mathematics 2	• concretely, pictorially, symbolically, and by using spoken or written language to express, describe, explain, justify, and apply mathematical ideas • using technology such as screencasting apps, digital photos
Curricular Competency	Use mathematical vocabulary and language to contribute to mathematical discussions	Mathematics 2	
Curricular Competency	**Explain and justify** mathematical ideas and decisions	Mathematics 2	• using mathematical arguments • "Prove it!"
Curricular Competency	Represent mathematical ideas in **concrete, pictorial, and symbolic forms**	Mathematics 2	• Use local materials gathered outside for concrete and pictorial representations.
Curricular Competency	**Reflect** on mathematical thinking	Mathematics 2	• sharing the mathematical thinking of self and others, including evaluating strategies and solutions, extending, and posing new problems and questions
Curricular Competency	Connect mathematical concepts to each other and to **other areas and personal interests**	Mathematics 2	• to develop a sense of how mathematics helps us understand ourselves and the world around us (e.g., daily activities, local and traditional practices, the environment, popular media and news events, social justice, and cross-curricular integration)

Curricular Competency	**Incorporate** First Peoples worldviews and perspectives to **make connections** to mathematical concepts	Mathematics 2	, • Invite local First Peoples Elders and knowledge keepers to share their knowledge. • Bishop's cultural practices: counting, measuring, locating, designing, playing, explaining (csus.edu/indiv/o/oreyd/ACP.htm_files/abishop.htm) • aboriginaleducation.ca • *Teaching Mathematics in a First Nations Context,* FNESC fnesc.ca/k-7/

Type	Content	Curriculum	Elaboration	Curricular Competency Group
Big Ideas	Daily participation in physical activity at moderate to vigorous intensity levels benefits all aspects of our well-being.	Physical and Health Education 2		
Big Ideas	Learning how to participate and move our bodies in different physical activities helps us develop physical literacy.	Physical and Health Education 2		
Big Ideas	Adopting healthy personal practices and safety strategies	Physical and Health Education 2		

Type	Content	Curriculum	Elaboration	Curricular Competency Group
	protects ourselves and others.			
Big Ideas	Having good communication skills and managing our emotions enables us to develop and maintain healthy relationships.	Physical and Health Education 2		
Big Ideas	Our physical, emotional, and mental health are interconnected.	Physical and Health Education 2		
Content	proper technique for fundamental movement skills, including **non-locomotor**, **locomotor**, and **manipulative** skills	Physical and Health Education 2	movements performed "on the spot" without travelling across the floor or surface; could include: • balancing • bending • twisting • lifting , movement skills that incorporate travelling across the floor or surface; could include: • rolling • jumping • hopping • running • galloping , movement skills involving the control of objects, such as balls, primarily with the hands or feet; may also involve racquets or bats; could include: • bouncing • throwing • catching • kicking	

Type	Content	Curriculum	Elaboration	Curricular Competency Group
			• striking	
Content	ways to **monitor physical exertion levels**	Physical and Health Education 2	could include using a 1-5 rating scale where 1 = cold, 2 = getting warmer, 3 = warm, 4 = getting hot, and 5 = very hot, and students choose the number that they feel best describes how they are feeling in relation to their exertion levels	
Content	how to participate in different types of physical activities, including **individual and dual activities**, **rhythmic activities**, and **games**	Physical and Health Education 2	activities that can be done individually and/or with others; could include: • jumping rope • swimming • running • bicycling • yoga • Hula Hoop , activities designed to move our bodies in rhythm; could include: • dancing • gymnastics , types of play activities that usually involve rules, challenges, and social interaction; could include: • tag • parachute activities • co-operative challenges • Simon Says • team games • traditional Aboriginal games	
Content	**effects** of physical activity on the body	Physical and Health Education 2	could include: • increased breathing • increased thirst • sweating • using our muscles • feeling good	
Content	practices that promote health and well-being, including those relating to **physical activity**, **nutrition**, and	Physical and Health Education 2	getting 60-90 minutes of moderate to vigorous physical activity each day, getting the recommended nutrients from the different food groups each day, practices could include: • washing hands • covering mouth when coughing • resting when sick	

Type	Content	Curriculum	Elaboration	Curricular Competency Group
	illness prevention		• staying away from others when sick	
Content	**strategies for accessing health information**	Physical and Health Education 2	could include: • speaking to a trusted adult • speaking to a medical professional • looking for health and safety signs	
Content	**strategies and skills to use in potentially hazardous, unsafe, or abusive situations**	Physical and Health Education 2	could include: • using a strong voice to say "no," "stop," "I don't like this" • calling out for help and getting away if possible • telling a trusted adult until you get help • not giving out personal information (e.g., to strangers, on the Internet)	
Content	effects of different **substances**, and strategies for preventing personal harm	Physical and Health Education 2	could include: • poisons • medications • psychoactive substances	
Content	managing and expressing emotions	Physical and Health Education 2		
Content	**factors that influence self-identity**	Physical and Health Education 2	could include: • self-esteem • self-efficacy • cultural heritage • body image	
Curricular Competency	Physical literacy	Physical and Health Education 2	• Example of a method of monitoring exertion levels in physical activity: using a 1-5 rating scale where 1 = cold, 2 = getting warmer, 3 = warm, 4 = getting hot, and 5 = very hot, choose the number that you feel best describes how you are feeling in relation to your exertion levels • Examples of types of physical	Physical literacy

Type	Content	Curriculum	Elaboration	Curricular Competency Group
			activity: ○ indoor or outdoor activities ○ free play or structured activities ○ activities with or without equipment	
Curricular Competency	Develop and demonstrate a variety of fundamental movement skills in a variety of physical activities and environments	Physical and Health Education 2		Physical literacy
Curricular Competency	Apply methods of monitoring exertion levels in physical activity	Physical and Health Education 2		Physical literacy
Curricular Competency	Develop and demonstrate safety, fair play, and leadership in physical activities	Physical and Health Education 2		Physical literacy
Curricular Competency	Identify and explain factors that contribute to positive experiences in different physical activities	Physical and Health Education 2		Physical literacy
Curricular Competency	Healthy and active living	Physical and Health Education 2	• What kinds of activities do you like to participate in on a daily basis at school, at home, or in	Healthy and active living

Type	Content	Curriculum	Elaboration	Curricular Competency Group
			the community? • What are some factors that influence your healthy eating choices? • Where can you find health information when you are at school? • What does healthy living mean to you?	
Curricular Competency	Participate daily in physical activity at moderate to vigorous intensity levels	Physical and Health Education 2		Healthy and active living
Curricular Competency	Identify and describe opportunities to be physically active at school, at home, and in the community	Physical and Health Education 2		Healthy and active living
Curricular Competency	Explore strategies for making healthy eating choices	Physical and Health Education 2		Healthy and active living
Curricular Competency	Describe ways to access information on and support services for a variety of health topics	Physical and Health Education 2		Healthy and active living
Curricular Competency	Explore and describe components of healthy living	Physical and Health Education 2		Healthy and active living

Type	Content	Curriculum	Elaboration	Curricular Competency Group
Curricular Competency	Social and community health	Physical and Health Education 2	• What can you do to stand up for yourself in an unsafe and/or uncomfortable situation? • What types of outdoor activities can you participate in in your community?	Social and community health
Curricular Competency	Identify and describe avoidance or assertiveness strategies to use in unsafe and/or uncomfortable situations	Physical and Health Education 2		Social and community health
Curricular Competency	Develop and demonstrate respectful behaviour when participating in activities with others	Physical and Health Education 2		Social and community health
Curricular Competency	Identify and describe characteristics of positive relationships	Physical and Health Education 2		Social and community health
Curricular Competency	Explain how participation in outdoor activities supports connections with the community and environment	Physical and Health Education 2		Social and community health
Curricular Competency	Mental well-	Physical and Health Education 2	• Examples of strategies that promote mental well-being:	Mental well-being

Type	Content	Curriculum	Elaboration	Curricular Competency Group
	being		○ getting enough sleep ○ talking about feelings ○ participating in regular physical activity • How do you respond to different feelings that you have? • What factors contribute to how you see yourself?	
Curricular Competency	Identify and apply strategies that promote mental well-being	Physical and Health Education 2		Mental well-being
Curricular Competency	Identify and describe feelings and worries, and strategies for dealing with them	Physical and Health Education 2		Mental well-being
Curricular Competency	Identify personal skills, interests, and preferences and describe how they influence self-identity	Physical and Health Education 2		Mental well-being

Type	Content	Curriculum	Elaboration	Curricular Competency Group
Big Ideas	**Living things have life cycles adapted to their environment**.	Science 2	• *Sample questions to support inquiry with students* ○ Why are life cycles important? ○ How are the life cycles of local plants and animals similar and	

Type	Content	Curriculum	Elaboration	Curricular Competency Group
			different? o How do offspring compare to their parents?	
Big Ideas	**Materials can be changed through physical and chemical processes**.	Science 2	• *Sample questions to support inquiry with students* o Why would we want to change the physical properties of an object? o What are some natural processes that involve chemical and physical changes?	
Big Ideas	**Forces influence the motion of an object**.	Science 2	• *Sample questions to support inquiry with students* o What are different ways that objects can be moved? o How do different materials influence the motion of an object?	
Big Ideas	**Water is essential to all living things, and it cycles through the environment**.	Science 2	• *Sample questions to support inquiry with students* o Why is water important for all living things? o How can you conserve water in your home and school? o How does water cycle through the environment?	
Content	**metamorphic** and **non-metamorphic** life cycles of different organisms	Science 2	metamorphic life cycles: body structure changes (e.g., caterpillar to butterfly, mealworm transformation, tadpoles to frog), non-metamorphic life cycles: organism keeps same body structure through life but size changes (e.g., humans)	
Content	similarities and	Science 2	a kitten looks like cat and a puppy	

Type	Content	Curriculum	Elaboration	Curricular Competency Group
	differences between **offspring and parent**		looks like dog but they do change as they grow; salmon change a great deal as they grow and need fresh and salt water environments to survive	
Content	**First Peoples use of their knowledge** of life cycles	Science 2	• stewardship: sustainably gathering plants and hunting/fishing in response to seasons and animal migration patterns (e.g., clam gardens, seasonal rounds, etc.) • sustainable fish hatchery programs run by local First Peoples	
Content	**physical** ways of changing materials	Science 2	physical ways of changing materials: • warming, cooling, cutting, bending, stirring, mixing • materials may be combined or physically changed to be used in different ways (e.g., plants can be ground up and combined with other materials to make dyes)	
Content	**chemical** ways of changing materials	Science 2	chemical ways of changing materials: cooking, burning, etc.	

Content	types of **forces**	Science 2	• contact forces and at-a-distance forces:
			  ○ different types of magnets
			  ○ static electricity
			• balanced and unbalanced forces:
			  ○ the way different objects fall depending on their shape (air resistance)
			  ○ the way objects move over/in different materials (water, air, ice, snow)
			  ○ the motion caused by different	

Type	Content	Curriculum	Elaboration	Curricular Competency Group
			strengths of forces	
Content	**water sources** including local watersheds	Science 2	• oceans, lakes, rivers, wells, springs • the majority of fresh water is stored underground and in glaciers	
Content	**water conservation**	Science 2	fresh water is a limited resource and is not being replaced at the same rate as it is being used	
Content	the **water cycle**	Science 2	The water cycle is driven by the sun and includes evaporation, condensation, precipitation, and runoff. The water cycle is also a major component of weather (e.g., precipitation, clouds).	
Content	local First People's knowledge of water: • water cycles • conservation • **connection to other systems**	Science 2	cultural significance of water (i.e., water is essential for all interconnected forms of life)	

Curricular Competency	Questioning and predicting	Science 2	Cycles are sequences or series of events that repeat/reoccur over time. A subset of pattern, cycles are looping or circular (cyclical) in nature. Cycles help people make predictions and hypotheses about the cyclical nature of the observable patterns.
			• Key questions about cycles:
			  ○ How do First Peoples use their knowledge of life cycles to ensure sustainability in their local environments?
			  ○ How does the water cycle impact weather?
				Questioning and predicting

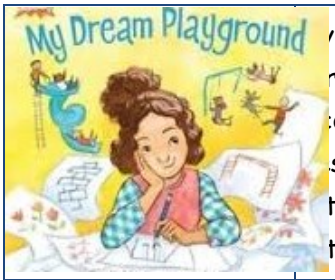
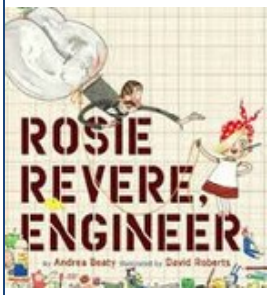
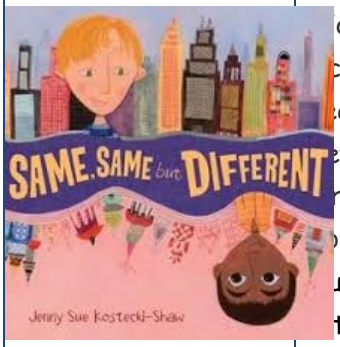
Curricular	Demonstrate curiosity	Science 2		Questioning and

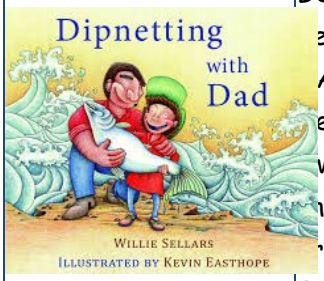
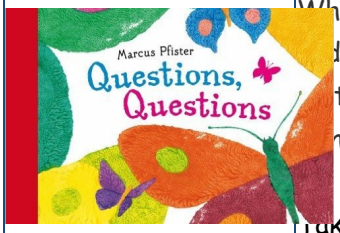
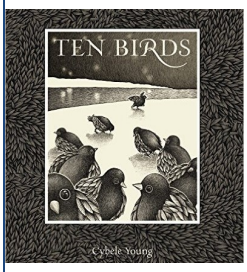
Type	Content	Curriculum	Elaboration	Curricular Competency Group
Competency	and a sense of wonder about the world			predicting
Curricular Competency	Observe objects and events in familiar contexts	Science 2		Questioning and predicting
Curricular Competency	Ask questions about familiar objects and events	Science 2		Questioning and predicting
Curricular Competency	Make simple predictions about familiar objects and events	Science 2		Questioning and predicting
Curricular Competency	Make and record observations	Science 2		Planning and conducting
Curricular Competency	Safely manipulate materials to test ideas and predictions	Science 2		Planning and conducting
Curricular Competency	Make and record simple measurements using informal or non-standard methods	Science 2		Planning and conducting
Curricular Competency	Experience and interpret the local environment	Science 2		Processing and analyzing data and information
Curricular Competency	Recognize First Peoples stories (including oral and written narratives), songs, and art, as ways to share knowledge	Science 2		Processing and analyzing data and information
Curricular Competency	Sort and classify data and information using drawings, pictographs and provided tables	Science 2		Processing and analyzing data and information
Curricular Competency	Compare observations with predictions through discussion	Science 2		Processing and analyzing data and information
Curricular Competency	Identify simple patterns and connections	Science 2		Processing and analyzing data and

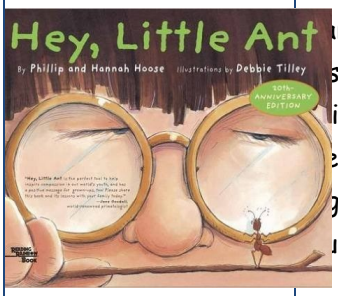
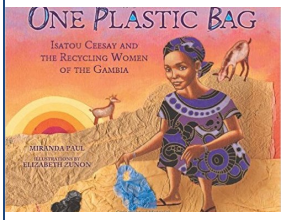
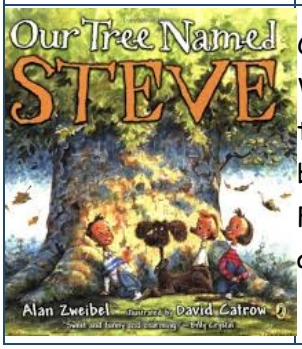
Type	Content	Curriculum	Elaboration	Curricular Competency Group
				information
Curricular Competency	Compare observations with those of others	Science 2		Evaluating
Curricular Competency	Consider some environmental consequences of their actions	Science 2		Evaluating
Curricular Competency	Take part in caring for self, family, classroom and school through personal approaches	Science 2		Applying and innovating
Curricular Competency	Transfer and apply learning to new situations	Science 2		Applying and innovating
Curricular Competency	Generate and introduce new or refined ideas when problem solving	Science 2		Applying and innovating
Curricular Competency	Communicate observations and ideas using oral or written language, drawing, or role-play	Science 2		Communicating
Curricular Competency	Express and reflect on personal experiences of **place**	Science 2	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 First Peoples perspectives of the world. • Key questions about place: o What is place? o What are some ways in which people experience place? o How can you gain a sense of place in your local environment? o How can you share	Communicating

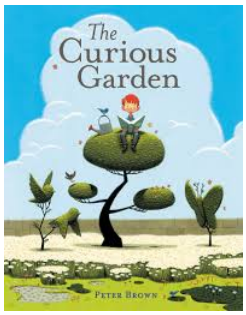
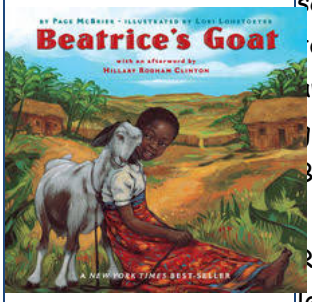
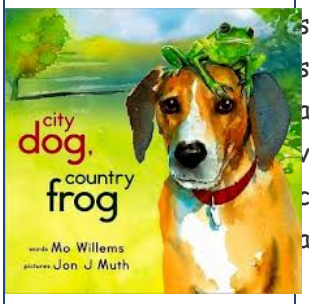
Type	Content	Curriculum	Elaboration	Curricular Competency Group
			your observations and ideas about living things in your local environment to help someone else learn about place?	

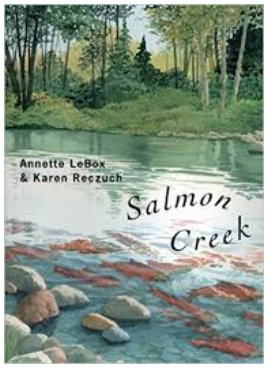
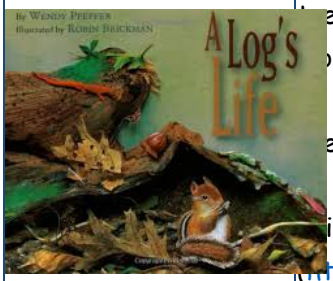
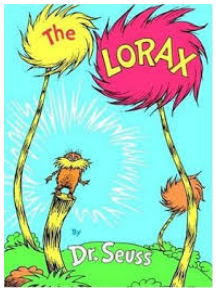
Appendix H
Story books useful for place-based practices

	y Dream Playground By Kate M. Becker resourceful little girl with big ideas becomes a key part of the team when community of family, friends, and neighbors builds a playground. sign a playground. It might be inside or out, with natural materials, or turistic plastics and metal, for the very young, or the very old! Perhaps an tdoor classroom suits you better, or a new type of sports facility.
	Rosie Revere Engineer By Andrea Beaty Rosie may seem quiet during the day, but at night she's a brilliant inventor of gizmos and gadgets who dreams of becoming a great engineer. When her great-great-aunt Rose (Rosie the Riveter) comes for a visit and mentions her one unfinished goal--to fly--Rosie sets to work building a contraption to make her aunt's dream come true. Using found materials, design a contraption to help great, great Aunt Rose fly (of course it doesn't actually need to fly!). If Aunt Rose wanted to go under water instead, create a design for that. What else might Aunt Rose want to do? She might need more contraptions!
	The Something By Rebecca Cobb When a little boy's ball disappears down a mysterious hole in the garden, he can't stop thinking about what could be down there - a little mouse's house? The lair of a hungry troll? Or maybe even a dragon's den. Whatever it may be, he's determined to find out! What's in the hole? Give each student an opportunity to decide what's in the hole? To spark creativity, go to the library and browse books ... a dragon book might inspire an underground dragon. Have each student draw and paint underground scenes like those in the book. This ones begs for a big bulletin board display!
	Same, Same but Different by Jenny Sue Kostecki-Shaw ot lives in America, and Kailash lives in India. They are pen pals. By changing letters and pictures, they learn that they both love to climb es, have pets, and go to school. Their worlds might look different, but y are actually similar. Same, same. But different! rough an inviting point-of-view and colorful, vivid illustrations, this story ws how two boys living oceans apart can be the best of friends. u may want to establish a pen pal relationship with a child in another part the world. Back and forth entries can be made into a book with illustrations.

	Dip netting with Dad by Willie Sellars BUMP, BUMP - SLAP, river sockeye salmon are pulled onto shore! Set in the eautiful landscape of the Cariboo Chilcotin region, DIPNETTING WITH AD is a delightful and colourful story of a father teaching his son the ecwepemc method of fishing known as dipnetting. Together they visit the veat lodge, mend the nets, select the best fishing spot and catch and pack eir fish through rugged bush back to the family home for traditional eparation Find a way to show a skill you have learned from a parent, grandparent, or elder e.g. fishing, knitting, cooking, gardening, crafts, music etc.
	Step Gently Out Be still, and watch a single blade of grass. An ant climbs up to look around. oneybee flies past. at would happen if you walked very, very quietly and looked ever so efully at the natural world outside? You might see a cricket leap, a moth ead her wings, or a spider step across a silken web. In simple, evocative guage, Helen Frost offers a hint at the many tiny creatures around us. Outside, find one thing that captures your attention. Observe that object closely. What senses are you using? What questions come to mind? What do you think might happen if ... ?
	Questions Questions How do birds learn how to sing? What brings summer after spring? at turns the leaves from green to brown sends them floating gently down? thirteen engaging couplets, Marcus Pfister opens children's eyes to the ndrous mysteries all around them Take students outside, encourage careful observation and lots of question-asking. Share questions with each other and note those individuals whose questions were the same. This can lead to individual or class inquiry projects.
	The Birds Ten birds are trying to figure out how to get to the other side of the river. The bird they call 'Brilliant' devises a pair of stilts. The bird they call 'Highly Satisfactory' engineers a raft. One by one, nine resourceful birds make the crossing until a single bird is left behind - the one they call 'Needs Improvement'. This bird's solution proves surprising - and absurdly simple. Using craft materials, have students create a contraption to get an animal from one side of the St. Mary's River to the other.

<table>
<tr>
<td> 
</td>
<td>Hey Little Ant!
What would you do if the ant you were about to step on looked up and ırted talking? Would you stop and listen? What if your friends saw you sitate? That's what happens in this funny, thought- provoking book. iginally a song by a father-daughter team, this conversation between two atures, large and small, is bound to inspire important discussions. It ght even answer that classic childhood question: To squish or not to uish?
• Have students write in role or dramatize the perspectives of an ant.
• Go outside, find an ant, worms, or caterpillars. Instead of capturing and placing in a jar, observe it closely in its own habitat.</td>
</tr>
<tr>
<td> 
</td>
<td>One Plastic Bag
Plastic bags are cheap and easy to use. But what happens when a bag breaks or is no longer needed? In Njau, Gambia, people simply dropped the bags and went on their way. One plastic bag became two. Then ten. Then a hundred. The bags accumulated in ugly heaps alongside roads. Water pooled in them, bringing mosquitoes and disease. Some bags were burned, leaving behind a terrible smell. Some were buried, but they strangled gardens. They killed livestock that tried to eat them. Something had to change. Isatou Ceesay was that change. She found a way to recycle the bags and transform her community. This inspirational true story shows how one person's actions really can make a difference in our world.
• This book is a perfect launch for I CAN projects. With simple questions such as, "What does this book inspire your to do?" in combination with, "What bugs you?" there's a natural entry point to inspire students to make a difference.
• Ask, "What recycling projects come to mind?"
• Walk around your neighbourhood. Where can we make a difference?</td>
</tr>
<tr>
<td> 
</td>
<td>Our Tree Named Steve
When the builders arrive on the land, a family works together to save their tree from being removed while sharing tales of how important the tree has been to all of them throughout the many years together.
Find your own special tree and give her a name. Write letters to your tree and imagine all the things she has seen.</td>
</tr>
</table>

	The Curious Garden While out exploring in the city one day, a little boy named Liam discovers a struggling garden on an elevated railroad track and decides to take care of it. As time passes with the little boy's tender gardening care, the mosses and plants spread, transforming the dark, gray city into a lush, green world. Take students out into the community with the goal of finding unusual places for plants to grow. Select a spot that students could experiment with caring for the plants growing in that location. Review the ways that Liam helps his garden grow.
	Beatrice's Goat More than anything, Beatrice longs to be a schoolgirl. But in her small African village, only children who can afford uniforms and books can go to school. Beatrice knows that with six children to care for, her family is much too poor. But then Beatrice receives a wonderful gift from some people far away -- a goat! Fat and sleek as a ripe mango, Mugisa (which means "luck") gives milk that Beatrice can sell. With Mugisa's help, it looks as if Beatrice's dream may come true after all. Research charitable organizations such as Heifer Project International and learn about purchasing a goat for another school. Our school's PAC purchases one every year through funds raised at our Christmas Ten Thousand Villages Sale.
	City Dog, Country Frog In spring, when City Dog runs free in the country for the first time, he spots Country Frog sitting on a rock, waiting for a friend. "You'll do," Frog says, and together they play Country Frog games. In summer, they meet again and play City Dog games. Through the seasons, whenever City Dog visits the country he runs straight for Country Frog's rock. In winter, things change for City Dog and Country Frog. Come spring, friendship blooms again, a little different this time. Talk about animal life cycles and the changing seasons. Discuss the life cycles of native animals in your region.

	Zoe and the Fawn An adventure begins when Zoe finds a lone fawn in the forest and helps search for its mother. But who could be the mother...a bunny, a fish? Join Zoe and her father as they encounter many woodland animals and learn their Native names along the way. Learn the names of local native animals in the language of the Indigenous people in your place.
	Salmon Creek The brief life of Sumi, a coho salmon, is the subject of this lyrical picture book. All phases of Sumi's life are shown, from her trip downriver to the ocean; to her time as a mature fish swimming in the great seas; to the most mysterious period in her life cycle the determined return against great obstacles to the remote creek of her birthplace. Tie to other lessons about salmon's life cycle and the life cycles of other animals in your region.
	A log's Life One stormy day a strong wind rages through the forest, causing an old oak ...ee to bend and sway. Lightning strikes; the tree crashes to the ground. ...w it's a giant log. ...e to lessons about interconnectedness of ecosystems, and the life cycles ... plants. You could have your students make their own movie of the book, as ...illustrated on this youtube video (https://www.youtube.com/watch?v=zFkJNzULfcs). You could also do art projects using paper and natural items as inspired by the beautiful illustrations.
	The Lorax Long before "going green" was mainstream, Dr. Seuss's Lorax spoke for the trees and warned of the dangers of disrespecting the environment. In this cautionary rhyming tale (printed on recycled paper) we learn of the Once-ler, who came across a valley of Truffula Trees and Brown Bar-ba-loots, and how his harvesting of the tufted trees changed the landscape forever. • What was the land of the Lorax like before the Once-ler arrived? Did it seem like someplace you'd like to live? What parts of your own environment would you be sad to see go? • Other activities at

	(http://www.seussville.com/Educators/lorax_classroom/educatorlorax_discuss.php)

What is Our Place?

2018/2019 PLACE BASED EDUCATION Year Plan: Grade Two

Mrs. Corissa Pasiechnyk

Lindsay Park Elementary School, Kimberley B.C.

Social Studies BIG IDEAS:

1. Local actions have global consequences, and global actions have local consequences.
2. Canada is made up of many diverse regions and communities.
3. Individuals have rights and responsibilities as global citizens.

Term 1 (Sept - Dec) **Curriculum**	Activities	Term 2 (Jan - March) **Curriculum**	Activities	Term 3 (April - June) **Curriculum**	Activities
-Canada is made up of many diverse regions and communities. -Characteristics of communities and cultures, including at least one first nations community. -Relationships between people and the environment in different communities.	-Working with Anna K (Ab Ed worker) to focus on Ktunaxa peoples and their creation stories. -Create Pen Pals with students from ʔaq̓amnik School (Ktunaxa School) -Bring in an elder -David Sobel (1998) community mapping activities: of our neighbourhood, school, Louis Creek, the platzl. -vising community places: museum, library, city hall, post office -underground mining tour -bring in a mining expert to share what it was like in Kimberley when the mine was open (Bert Banks) -examination of significant landmarks: Fisher Peak, the Ski Hill.	-How peoples' needs and wants are met in our community -Local actions have global consequences, and global actions have local consequences. -Relationships between people and the environment in different communities -Roles and responsibilities of regional governments	-Through our den building activities discussing the need for shelter, and discussing what kinds of shelters are necessary for different environments – linking this conversation to global citizenship – what can be done to help ensure everyone has adequate shelter? -what are needs vs wants (UNICEF resource for teaching difference) -SMART sequence Beatrice's Goat -Working with members of the city of Kimberley to demonstrate roles of our local government, as connected with our project to improve the skating rink. -Field trip to St. Euegene to meet our pen pals?	-Individuals have rights and responsibilities as global citizens.	-Our responsibility as community members to make improvements to our community through public art

Science BIG IDEAS:

1. Living things have life cycles adapted to their environment.
2. Materials can be changed through physical and chemical processes.
3. Forces influence the motion of an object.
4. Water is essential to all living things, and it cycles through the environment.

Term 1 (Sept - Dec) **Curriculum**	Activities	Term 2 (Jan - March) **Curriculum**	Activities	Term 3 (April - June) **Curriculum**	Activities
-Water is essential to all living things, and it cycles through the environment. Our local water sheds, Ktunaxa uses of water and water sheds, the water cycle and conservation	Exploration of water in Louis Creek - collecting samples; learning the water cycle, creating mini water cycles in ziplock bags; Where can we find water in this place? Other examples of water around our community (Streams in Louis Creek ->Mark Creek -> St. Mary's->Kootenay River); Building boats for the creek – where do they go? How does water flow? Our storm drains drain into various creeks that ultimately end up in the St. Mary's River. -Potential to build models to represent the streams/creeks/ rivers. -uses of water; -stream science with Batty Patty (CBEEN), learning about macroinvertebrates and what they can tell us about our water. experiments showing pollution in water and how difficult it is to clean up. - "Story of the Lake" (Citro, 2015, p. 22) -stream water quality checklist and measuring	-Forces influence the motion of an object. -Materials can be changed through physical and chemical processes. physical and chemical ways of changing materials	-Holding our own class "dummy downhill" at McDougal park -potentially entering our own class dummy into the dummy downhill at spring splash (gravity, friction, weight, measurement, etc). -making Ice Art Mobiles (Houghton & Worroll, 2016, p. 54) -healthy cooking activities -bending, breaking, materials in nature -changing materials with fire – having a campfire in the gully and experimenting with burning and melting materials.	-Living things have life cycles adapted to their environment. metamorphic and non-metamorphic changes, similarities and differences between offspring and parents, first peoples understanding of life cycles	SMART sequence Salmon Creek A log's Life The Lorax -Gardening – starting in the greenhouse - planting seeds, life cycles, worms, life cycles of: -various Macroinvertebrates (see Mainstreams local programming and Citro, 2015, p. 125 for useful infographic on macroinvertebrates as connected to streams' health and pollution. -tadpoles/frogs to release -lots of excellent frog life cycle resources at www.woodlandtrust.org.uk/naturedetectives -exploring what makes seeds grow. (Constable, 2015, p. 71) -finding out about roots. (Constable, 2015, p. 74)

	turbidity, temperature, pH, macroinvertebrates. (Citro, 2015, p. 61) -finding out about seeds, collecting them from native plants that are dying in the fall. (Constable, 2015, p. 21) -Inspecting Spiders' webs, (Constable, 2015, p. 23)				
English Language Arts BIG IDEAS: 1. Language and story can be a source of creativity and joy. 2. Stories and other texts connect us to ourselves, our families, and our communities. 3. Everyone has a unique story to share. 4. Through listening and speaking, we connect with others and share our world. 5. Playing with language helps us discover how language works. 6. Curiosity and wonder lead us to new discoveries about ourselves and the world around us.					
Term 1 (Sept - Dec) **Curriculum**	Activities	Term 2 (Jan - March) **Curriculum**	Activities	Term 3 (April - June) **Curriculum**	Activities
Strategies and processes - reading strategies - oral language strategies - metacognitive strategies - text features - vocabulary associated with texts - writing processes, structures, and conventions - features of oral language - word patterns, word families - letter formation - sentence structure -conventions -Read fluently at grade level	-Reading workshop on each reading strategy -guided reading while students do Daily 5 type reading -Writers workshops -Word Work -Nature notebooks journaling about our special places -writing and drawing about what we see, hear, feel, touch, taste, smell while outside -Oral retelling of Ktunaxa or other creation stories "find something interesting" have the kids find interesting objects in nature and then write that object's "biography" in five sentences.	Explore oral storytelling processes - Story/text - elements of story - literary elements and devices - Use sources of information and prior knowledge to make meaning Use developmentally appropriate reading, listening, and viewing strategies to make meaning Recognize how different text structures reflect different purposes. Engage actively as listeners, viewers, and readers, as appropriate, to develop understanding of self, identity, and community	-guided reading while students do Daily 5 type reading -Writers workshops -Word Work - Sound Poem on Louis Creek trails (David Sobel)-writing about a special moment in time. -descriptive language (juicy words) -editing processes (writers' mumble -eventually create a model showing these special places with the sound poem displayed along the path -Nature notebooks journaling about our special places	-Demonstrate awareness of the role that story plays in personal, family, and community identity - Use personal experience and knowledge to connect to stories and other texts to make meaning - Recognize the structure and elements of story - Show awareness of how story in First Peoples cultures connects people to family and community - Exchange ideas and perspectives to build shared understanding - Create stories and other texts to deepen awareness of self, family, and community	-Writing thank you letters to anyone who helps us with our project (City of Kimberley, Artstarts, RDEK, Helen Robertson (artist), etc.) - giving a presentation of our project at a public event – hopefully the city, newspaper, parents and community members will attend -Sound Poem for the Louis Creek Rink mural project SMART sequences: Salmon Creek A log's Life The Lorax

	-have them ask questions about their object (Roberston, 2014, p. 51) -20 questions - write tips and "how to" build a really good den – then create a class book of advice for novice den builders. -writing letters to their pen pals SMART sequences: A tree named Steve The Curious Garden		-Unit on myths and fairy tales (elements of story) -choosing our best writing to publish in Spring issue of *GO Kimberley* – what we love about Kimberley/ our place SMART sequences: Beatrice's Goat Country Frog, City Dog Zoe and the Fawn	- Plan and create a variety of communication forms for different purposes and audiences - Communicate using sentences and most conventions of Canadian spelling, grammar, and punctuation	
Health and Physical Education BIG IDEAS: 1. Daily participation in physical activity at moderate to vigorous intensity levels benefits all aspects of our well-being. 2. Learning how to participate and move our bodies in different physical activities helps us develop physical literacy. 3. Adopting healthy personal practices and safety strategies protects ourselves and others. 4. Having good communication skills and managing our emotions enables us to develop and maintain healthy relationships. 5. Our physical, emotional, and mental health are interconnected.					
Term 1 (Sept - Dec) **Curriculum**	Activities	Term 2 (Jan - March) **Curriculum**	Activities	Term 3 (April - June) **Curriculum**	Activities
Social and community health - Healthy and active living - Physical literacy	-Outdoor tag games -Cooperative games -Teambuilding games -Hide and seek games -Aboriginal games -Simon says -Balancing/ quiet games -Running, climbing, jumping, -throwing etc. -Activities to encourage calming down, monitoring how our bodies are feeling, going to a peaceful place to be calm, still and quiet – how we feel after playing outside. -Risk management and assessment while playing	Social and community health - Healthy and active living - Physical literacy	-Gymnastics unit -Basketball unit -dance unit -Snowshoeing -Cross-country skiing -activities to encourage mindfulness and awareness of our bodies - Having a "mindful moment" to begin and end each outdoor activity	Social and community health - Healthy and active living - Physical literacy	-bike fair and bike riding -soccer -capture the gold -capture the flag in the Gully -cooperative and competitive outdoor games

Math BIG IDEAS:

1. Numbers to 100 represent quantities that can be decomposed into 10s and 1s.
2. Development of computational fluency in addition and subtraction with numbers to 100 requires an understanding of place value.
3. The regular change in increasing patterns can be identified and used to make generalizations.
4. Objects and shapes have attributes that can be described, measured, and compared.
5. Concrete items can be represented, compared, and interpreted pictorially in graphs.

*Activities are from Robertson, 2017

Term 1 (Sept - Dec) **Curriculum**	Activities	Term 2 (Jan - March) **Curriculum**	Activities	Term 3 (April - June) **Curriculum**	Activities
-Repeating and increasing patterns -Change in quantity, using pictorial and symbolic representation -Symbolic representation of equality and inequality -Direct linear measurement, -Introducing standard metric units -Multiple attributes of 2D shapes and 3D objects	-working together to create various math resources (see Robertson, 2017, p. 32) -Sorting leaves by size, -Sorting interesting objects based on different classifications (colour, size, living/non-living, shape, weight, texture, etc). -introduce venn diagrams or carroll diagrams to demonstrate (use hula hoops for venn and sticks for carroll) – have students work in pairs to create their own diagrams. -Patterning activities with natural objects (colourful leaves, stones, etc). -measuring and estimating items -measuring weight and mass to introduce concepts of equal and unequal. -measuring items using non-standards units of measurement, leading into using metres, cm etc.	-Number concepts to 100 benchmarks of 25, 50, and 100 and personal referents -Addition and subtraction facts to 20 (introduction of computational strategies) -Addition and subtraction to 100 -Likelihood of familiar life events, using comparative language	-groups create estimation jars with natural objects and estimate how many of something are inside – then challenge them to release half of whats inside and count – how can we use this knowledge to estimate the total? -"find a number" (Robertson, 2017, p. 55) -environmental and pocket number lines (Robertson, 2017, p. 59) - create the Big Outdoor Number Book – (Robertson, 2017, p. 55) -picture sticks – give a given number of items (sticks, stones, cones, etc). and each child goes to collect this number and then makes a picture on the ground using all of them. -dice pattern game using 6 pebbles for practice subitizing (Robertson, 2017, p. 58)	-Financial literacy — coin combinations to 100 cents, and spending and saving - Pictorial representation of concrete graphs, using one-to-one correspondence	- Flip a coin/penny walks - Make an outdoor store with a woodland currency: Create woodland currency - each type of found object can represent a quantity of currency, e.g. Larch needles = 1cent; sticks = 5 cents; stones = 10 cents; pine cone = $1; Douglas Fir cone = $2 and so on... then children can gather their money and use it for trading. So, for example, if they have made a nice object such as some artwork then they can decide a price and they have to find the correct amount of woodland money to pay -measuring our art spaces - discussions about cost of our project and fundraising - data collection and graphing info related to our seedlings and tadpole growth

	-angle hunt 1m challenge (Robertson, 2017, p. 5) measuring depths of puddles (making sticks or using a ruler to measure, find the deepest one, etc.). (Robertson, 2017, p. 18). -building 3D shape dens Robertson, 2017, p. 153 -taking models of cardboard boxes apart (net) and reconstructing (Robertson, 2017, p. 160) -play "whats the rule" for sorting objects into 2 sets (fewer than 4 petals, more than 4 petals) and students guess the rule by suggesting additional items. (Robertson, 2017, p. 164)		-games for addition practice: "show me" add or subtract? How many ways? Adding on games (Robertson, 2017, p. 74) -games for subtraction: the game of nim (Robertson, 2017, p. 76) -counting forwards and backwards, skip counting by 2s, 5s, 10s -finding 100 things, counting -BEAM math games (No longer available online, see Reference list for link to dropbox with all activities).		
Art Education BIG IDEAS: 1. Creative expression develops our unique identity and voice. 2. Inquiry through the arts creates opportunities for risk taking. 3. Dance, drama, music, and visual arts are each unique languages for creating and communicating. 4. People connect to the hearts and minds of others in a variety of places and times through the arts.					
Term 1 (Sept - Dec) **Curriculum**	Activities	Term 2 (Jan - March) **Curriculum**	Activities	Term 3 (April - June) **Curriculum**	Activities

1. visual arts: elements of design: line, shape, texture, colour, form (visual arts); principles of design: pattern, repetition, rhythm (visual arts), contrast -traditional and contemporary Aboriginal arts and arts-making processes -a variety of local works of art and artistic traditions from diverse cultures, communities, times, and places -personal and collective responsibility associated with creating, experiencing, or sharing in a safe learning environment -Explore elements, processes, materials, movements, technologies, tools, and techniques of the arts -Create artistic works collaboratively and as an individual using ideas inspired by imagination, inquiry, experimentation, and purposeful play -Explore personal experience, community, and culture through arts activities 2. music: beat/pulse, duration, rhythm (music), tempo, pitch, timbre, dynamics (music), form (music), texture	-Making natural designs with leaves and other art – rainbow walk and pattern making – documented with photos. -Masking tape line art – using tape to block out lines and shapes on old cotton sheets, then have kids find natural materials to do rubbings to dye the fabric in between spaces. Remove tape to view shapes and colours. (Robertson, 2017, p. 143) -Symmetry game "find five" (Robertson, 2017, p.172) -nature mandalas (Robertson, 2017, p.172) -Christmas card art – could I bring in local artist Lori Joe to do Lori Joe style Kimberley art? -Sketching nature/ wildlife in our nature notebooks Weekly drawing practice connected with show and tell/sharing or our interesting items from nature. -Guided drawing -Kandinsky trees -Remembrance Day art -Christmas projects	1. visual arts: elements of design: line, shape, texture, colour, form (visual arts); principles of design: pattern, repetition, rhythm (visual arts), contrast 2. Dance: body, space, dynamics (dance), time, relationships, form	Aboriginal style line art Scaling up and down simple line drawings (Sobel, 1998, p.53) Outdoor art investigations: -do straight lines exist in nature? -Is it possible to find all of the colours of a rainbow? -Why does texture matter? -Feelings associated with colours we find and see -Visiting Centre 64 and touring the gallery and theatre -Art involving local landmarks and views (Such as sketching Fisher Peak or mountain range -building a fairy garden that must include elements and principles of design such as 2 straight lines, 2 curved lines, 1 example of an AB pattern, 1 example of an AABB pattern, etc.	1. visual arts: elements of design: line, shape, texture, colour, form (visual arts); principles of design: pattern, repetition, rhythm (visual arts), contrast 2. drama: character, time, place, plot, tension	Main activity will be our representation of our community through a collaborative, community mural project. Will require understanding of line, shape, colour, texture, design, pattern, etc. Mothers' Day – Hapa-Zome (Japanese printing technique using freshly picked plants between cotton and banging with a mallet or stone) the print can be framed or used as bunting (Robertson, 2017, p. 171) Fathers' Day – tree cookie decorations, Earth Day – recycled paper postcards (Citro, 2015, p. 84)

Applied Design, Skills and Technology BIG IDEAS:

1. Designs grow out of natural curiosity.
2. Skills can be developed through play.
3. Technologies are tools that extend human capabilities.

Term 1 (Sept - Dec) **Curriculum**	Activities	Term 2 (Jan - March) **Curriculum**	Activities	Term 3 (April - June) **Curriculum**	Activities
Ideating Identify needs and opportunities for designing, through exploration Generate ideas from their experiences and interests Add to others' ideas Choose an idea to pursue. Use materials, tools, and technologies in a safe manner in both physical and digital environments Develop their skills and add new ones through play and collaborative work Explore the use of simple, available tools and technologies to extend their capabilities	-year-long emergent bulletin board addressing our exploration of our Big Q: What is Our Place? (See Sobel, 1998) -Designing buddy reading bags using recycled tee shirts and leafs to print on them. "Acrylic paint sun prints" (Citro, 2015, p. 78) -Designing sit pads and outdoor backpacks for our outdoor learning -knot tying skills (Houghton & Worroll, 2016, p. 82) -Building a class den and individual dens -working together to create various math resources (see Robertson, 2017, p. 32)	Making Choose tools and materials Make a product using known procedures or through modelling of others Use trial and error to make changes, solve problems, or incorporate new ideas from self or others Use materials, tools, and technologies in a safe manner in both physical and digital environments Develop their skills and add new ones through play and collaborative work Explore the use of simple, available tools and technologies to extend their capabilities	-year-long emergent bulletin board addressing our exploration of our Big Q: What is Our Place? (See Sobel, 1998) Building a class den and individual dens – finally, have the kids discuss selling tactics to "market" their dens, and discuss what kinds of features add value to property. Then have them market their dens, as real estate agents market real properties, and photograph and create a listing for their spaces. (Robertson, 2014, p. 77). -practice knot tying -design and build animal shelters (birdhouses, homes for mammals, or insects?) -building a fairy garden	Sharing Decide on how and with whom to share their product Demonstrate their product, tell the story of designing and making their product, and explain how their product contributes to the individual, family, community, and/or environment Use personal preferences to evaluate the success of their design solutions Reflect on their ability to work effectively both as individuals and collaboratively in a group Use materials, tools, and technologies in a safe manner in both physical and digital environments Develop their skills and add new ones through play and collaborative work Explore the use of simple, available tools and technologies to extend their capabilities.	-year-long emergent bulletin board addressing our exploration of our Big Q: What is Our Place? (See Sobel, 1998) Presenting and sharing our collaborative community art. Building a bird's nest activity (www.woodlandtrust.org.uk)