

EcoArt: Envisioning and Inspiring Change

by

Jillian Walters

Bachelor of Education, University of Victoria, 1993

A Paper Submitted in Partial Fulfillment  
of the Requirements for the Degree of

MASTER'S OF EDUCATION  
in the Department of Curriculum and Instruction

© Jillian Walters, 2014  
University of Victoria

All rights reserved. This paper may not be reproduced in whole or in part, by photocopy or other means, without the permission of the author.

## **Supervisory Committee**

Dr. James Nahachewsky, Department of Curriculum and Instruction  
**Supervisor**

Dr. Robert Anthony, Department of Curriculum and Instruction  
**Departmental Member**

### **Abstract**

This paper examines the environmental crisis faced by our planet, the reasons that environmental education could not induce changes in pro-environmental attitudes and behaviours, and offers an alternative to traditional environmental education through the newly emerging curricular area of EcoArt education for elementary aged students. Responding to the need to address the burgeoning environmental crisis facing the planet, teachers can use art to teach ecological literacy with the goal of increasing the students' connection to nature and encouraging life-long pro-environmental behaviours. EcoArt education has the potential to develop not only the knowledge but also the affective connections that are necessary for individual learners to engage in sustainable actions in school and beyond in their own homes and communities.

## Table of Contents

Abstract .....	ii
Table of Contents.....	iii
Acknowledgements .....	vi
Dedication.....	vii
Chapter 1: Introduction .....	1
Connecting to Place .....	1
Activating Activism .....	2
Alone in the Woods .....	3
Allies: Creating Community and Confidence.....	3
Merging and Emerging .....	5
Moving Forward .....	6
Literature Review.....	7
Environmental Crisis Consensus.....	7
Good Intentions: Environmental education .....	9
What is EcoArt .....	11
EcoArtists Inspire .....	12
Eco Art Education .....	14

Making Eco-Friendly Choices.....	15
EcoArt education Pedagogy.....	16
Place-based Learning.....	16
Loving the Places You Know .....	18
Ecoliteracy .....	19
21 <sup>st</sup> Century Learning .....	21
Inclusivity.....	22
EcoArtist Exemplars .....	23
Conclusion: What to do now that I know.....	24
Chapter 3: Personal Project.....	25
Nurturing a New Approach .....	25
Fertile Ground .....	25
Gathering Seeds .....	26
Sowing Seeds: Place-Based Learning .....	27
Sowing Seeds: The Importance of Exemplars .....	28
Sowing Seeds: Balancing Ecoliteracy and Art.....	29
The Root of the Matter.....	30
Sprouting an Idea: EcoArt Camp .....	30
Supporting the Sprout: The Lesson Plan .....	32

Supporting the Sprout: The Method ..... 35

Seedling Start: Day One ..... 37

Measuring Growth-Day Two..... 41

Growing Stronger-Day Three..... 43

Growing in the Garden: Day Four..... 45

Branching Out: Day Five ..... 47

Blossoming: Five New Understandings ..... 50

Bearing Fruit: Assessing the Approach..... 53

Harvesting: Sharing EcoArt education..... 55

Ripening: Getting Sweeter..... 57

References ..... 59

Appendix A ..... 64

Appendix B..... 65

Appendix C..... 66

Appendix D ..... 67

Appendix E..... 68

## **Acknowledgements**

I would like to acknowledge the vision and efforts of Fred Robertson and the Professional Development Committee for exploring the possibility of creating a North Island Masters cohort connected to The University of Victoria. I will be forever grateful that they got the ball rolling.

Special thanks go to Dr. David Blades for setting a supportive and appreciative tone and gently leading us into our studies. I have much gratitude also for the professors in each course afterward who shared their vast knowledge and encouraged us to go a little farther than we thought we could.

I would like to acknowledge the humanity and optimism of Dr. James Nahachewsky who believed in me when others might have faltered, and of Dr. Robert Anthony, who's inquiring mind and academic rigor helped me to expand my thinking.

I would also like to acknowledge the support of my cohort, a group of talented, focused educators who put their hearts and souls into all activities educational. The students in our district are lucky, indeed.

And to my Eagle View family, Malcolm Fleeton, Christina MacDonald, Michelle Sedola, Sean Barfoot and Sarah Soltau, thank you for the understanding and support you gave me through the last two years.

## Dedication

For my mother, who taught me to glory in the beauty and mystery of nature and for my father who taught me that hard work and determination can make anything possible.

For Neil, my long-suffering husband, the one who really makes the magic happen, and for my much-loved children, Norah and Arlen, my heroes, who are making an art of living lightly.

For Jackie Hildering, who sets the bar high, and reminds me every day through her work to fight the good fight and help children develop a sense of wonder and responsibility toward the planet.

And, for my teaching-sister, Tina Murray, who knew I had it in me, who made me laugh until I cried, and kept me smiling through hard times. She found joy in every aspect of teaching and shared her creativity and ideas freely, giving gifts of friendship and hope that will never be forgotten. Your legacy lives within each person who was lucky enough to be part of your shiny, happy world

## Chapter 1: Introduction

*"I am myself and what is around me; and if I do not save it, it shall not save me."*

Jose Ortega y Gasset

### Connecting to Place

Born on Canada's west coast, my heart and soul are connected to the forests and the sea. I have lived most of my life within 500 meters of the ocean. The nutrient rich marine world has been a playground for my curiosity, a respite from the complications of the social world, an ever-constant companion and a microcosm of the intricate complexities and connections that are inherent in all natural systems. The forest - close by, always at the edge - has been a place to explore, to feel small, and to find the inspiration and materials to create. Both the sea and the forests have significantly affected my sense of personal responsibility and developed my aesthetic need for balance, harmony, colour and composition.

As a young child, at my grandparent's campground, my sister, cousins and I would spend blissfully long, summer days playing in the fields and in the trees. When it rained, we would go crabbing in the shallow waters and, when the sun reappeared, we would swim and beachcomb for shells, rocks and feathers on the long shores of the bay. Situated on traditional Aboriginal lands, we knew that the campground did not belong to us, but we could not have loved it more if it was our own.

In my Elementary years, all of the children in our neighbourhood were expected to play outside until dusk forced us in. We would gather in the big trees at the bottom of our street that signaled the end of civilization and the start of the adventurous "wild". The canopy of the trees formed our "fort", a place where our imaginations blossomed and where friendships grew. Every

bug, flower, rock and puddle was investigated and we would walk the banks of the nearby creek, testing ourselves by crossing wind-fallen tree ‘bridges’ to reach the other side.

The importance of being outside was modeled for us by our parents who took us to see the salmon spawning every fall, skied with us in winter and sailed and camped with us in the summer. We travelled across Canada together and explored the diverse landscapes of almost every province. The inherent beauty of the distinct environments enabled me to cultivate a deep connection to the natural world. Along with these experiences, I was also gaining a growing understanding of the threats to these environments. Realizing that human activities were negatively impacting plants and wildlife made me want to protect the wild spaces upon which living things depend.

### **Activating Activism**

As I matured, I spent less time outside and more time inside. The emotional connection I had made to the environment became more abstracted and intellectual throughout my late teens. Fueled by the energetic activism modeled by some of my teachers, I began to advocate for the environment amongst my friends and family. In my early twenties, I lived with, and worked for, a family who seamlessly incorporated artful living and environmental responsibility into their daily lives. Through their pioneering “earth friendly” business, we provided our community with sustainable and fair trade products, supporting and encouraging people to live more lightly on the planet. During this time I was surrounded by beautiful art and developed an appreciation for creative interpretations of natural beauty. I knew that I wanted to share this gentle way of living that my friends had exposed me to over those summers. At university, I further developed my passion for art and the environment. Working with children, I believed I could plant the seeds of

caring about, and protecting, the environment. With increasing pollution, disappearing wild spaces and so many species in danger of extinction, encouraging environmental awareness was the only way for me to stay optimistic about the future and it became my educational priority. One child at a time, I was going to help to change the world.

### **Alone in the Woods**

Starting my first job in a small, coastal village was thrilling and terrifying. Living and working in a resource-dependent community for the first time presented challenges. Sustainability and stewardship were not mainstream ideas in these mining, logging and fishing communities in the early 1990's. Completely embedded in the wild beauty of the North Island, I felt unable to advocate directly for environmental protection. I learned that I had to soften my message and methods so I did not offend or alienate my students and their families. If I wanted to teach about the effects of deforestation, I taught about Brazilian and Indonesian forests; if we were to talk about overfishing, we would discuss the cod fisheries on the east coast. Over the years, I integrated the concepts of ecosystems and interconnectedness of living things into the curriculum more confidently by embedding them through art, science, language arts, social studies and physical education classes. I hoped that the students would make the connection and learn to care about, and want to protect, the environment that they lived in.

### **Allies: Creating Community and Confidence**

After fifteen years of teaching on the North Island, surprising even myself, I took a position teaching at an isolated, one room school located between Vancouver Island and the mainland. It was the most beautiful natural place I had ever lived. Our school was nestled

between the ocean and the forest, situated on a midden. My family fit into the community perfectly because we shared the same beliefs and concerns about the environment that our new neighbours did. It was the first time in my teaching career that I felt like I truly belonged. I was teaching the children of salmon enhancement workers, orca and sea lice researchers, artists, homesteaders, and people whose lives depended on healthy forests, rivers and oceans. Everyone had a high degree of personal responsibility for living lightly and for taking only what was needed from the land. Many of the residents were well-known activists on the coast who were involved in marine protection. Our resident elder and expert set a great example of stewardship and inspired everyone, down to the last child, to participate in stream clean ups and salmon enhancement projects. On the rare occasion when there was litter, the students were outraged. Everyone recycled even though it was a logistical challenge because everything had to be taken out by boat. The children's competencies in, and knowledge of, their environment was extensive and far outweighed that of most adults who make the coast their home. There was a pervasive belief that every problem had a solution and fixing problems just required a little elbow grease. I was lucky at this time to become friends with a talented artist who encouraged me to explore my interest in art. Around that time, I also became friends with the most fearless educator I have ever met. This environmental crusader pushed through the taboo of discussing environmental issues with students on the North Island and transformed our District from an archipelago of tentative individuals working in isolation, to a community of educators and learners who put ecology and environmental stewardship at the forefront of their teaching. Several energetic new teachers and a new superintendent, along with a changing economy and changes to the British Columbia curriculum, allowed educators in our area the

opportunity to integrate environmental education into their teaching without the suppression that had previously constrained us.

### **Merging and Emerging**

Shored up and optimistic, I returned to my previous school in town and combined my love of teaching art with my passion for the environment. I created an afterschool EcoArt Club that I have run for several years. Developing art lessons with an environmental theme was the creative outlet I had been looking for, and working with the students was so encouraging and uplifting. Concentrating on what we could do to make the world more balanced and beautiful empowered us. Upcycling ‘garbage’, raising money for orca research, planting a pollinator garden and representing our understanding of endangered animals through prayer flag art were some of the exciting projects we worked on. Through the EcoArt Club, I began to work with other teachers and with groups like the Young Naturalists of BC, developing lessons for several events. Connections were being made and alliances were created. Finally, I had found environmental allies and had curricular permission to do the work that was my passion.

Sometimes while we worked on these projects, I would wonder if my lessons reflected current research on how to approach environmental issues with children. Were the lessons purposeful, constructive and developmentally appropriate? I wanted to make sure that I was fostering eco-optimism in children rather than adding to their worries about the future. The goal was to create understanding and the belief that they could affect positive change by the choices they would make throughout their lives. It was hard to find information to support my ideas and to find answers to my queries on the Internet because there did not seem to be any cohesive, easily accessible program or site that combined art and environmental education.

## **Moving Forward**

The opportunity to do my Masters through the University of Victoria afforded me the chance to refine and formalize the work I had been doing with my EcoArt Club. Less radical now than when I started teaching, I have come to believe that before intellectual knowledge develops, children need to explore and immerse themselves in their local environment. EcoArt can provide outdoor opportunities as well as the time needed to reflect upon them. I believe that it is a constructive, optimistic, engaging way to help learners internalize, connect, express and share their understandings and experiences. Through EcoArt, children can develop a relationship with nature and work on local solutions to local problems.

Mutually supportive, art is informed by nature and can be used to inform our understanding of sustainability issues. Both art and ecology explore relationships, are enhanced by collaboration, require problem solving and creative thinking and emphasize the importance of balance and connections. As I begin to explore the literature on these subjects, I hope to identify which ecological principles and concepts are developmentally appropriate for elementary-aged children. That understanding will support me in creating practical, integrated, research-based lessons that can be shared with others online through my blog. After years of seeking resources out, I want to make EcoArt lessons and resources available in one spot so that other teachers might be more confident about including ecological concepts in their teaching. My goal is to explore how one can use visual arts as a medium in developing an ecological mindset and eco-literacies in elementary-aged children and to develop lessons that will support students in building caring connections to nature. It is my hope that these connections will encourage others to develop a sense of responsibility, leading to living in more sustainable, earth-friendly ways.

## Literature Review

In this review of the literature, I will examine the environmental crisis and the attempts educators have made to support students in understanding the changing world they live in for the purpose of creating a citizenry who will become responsible environmental citizens. I will review past environmental education practices and examine the growing awareness of EcoArt and the related emerging field of EcoArt education. Some of the best practices that support EcoArt education are outlined as well.

### Environmental Crisis Consensus

Humanity's collective body of knowledge has expanded to the point that we can no longer ignore our deleterious impact on the planet. The *2013 State of the World Time Line*, compiled by Alison Singer, provides ample evidence that we are living through an era of environmental and ecological crisis. She cites many examples including: extreme weather events associated with climate change, rising carbon dioxide rates that are leading to ocean acidification, melting polar icecaps, and the readjustment by another minute closer to midnight on the Doomsday Clock. Renowned ecologist and scientist, David Suzuki, states in *Art for An Oil-Free Coast* (Kirkvold, 2012) that “[h]umanity has become so powerful in [numbers, technological power and consumptive demand that we are altering the physical, chemical, and biological properties of the planet on a geological scale, jeopardizing all species, including people” (p.11). In the book, *Ecoliterate*, Goleman, Bennett & Barlow (2012) advise that we need to “urgently put the brakes on before we reach the tipping points where systems spin out of control and crash” (p.40). There

is little doubt that human activity is causing changes to our environment that threaten the systems which sustain life on earth.

Yet, for all of the environmental problems that our planet faces, there remains a hope, widely reflected in the literature, that by taking immediate action we may be able to change our perilous trajectory. Goleman et al. (2012) believes that “[a]t times of instability in a system-be it a school, a nation, or the biosphere-there is always the possibility of breakthrough to new forms and ways of thinking and acting” (p.38).

Addressing the environmental crisis, and the associated “health, security, economic and social justice” (Elliott & Davis, 2009, p.66) issues, will require a concerted effort, a critical mass, countries and communities committed to radically altering their behaviour, and perhaps most importantly the mindset and the skill set of the next generation. Education will need to play a critical role in creating a more sustainable society. To do this, we must change the way that we teach our children. Paulo Freire (1970) argued:

Education either functions as an instrument that is used to facilitate the integration of the younger generation into the logic of the present system and bring about conformity to it, or it becomes “the practice of freedom”, the means by which men and women deal critically and creatively with reality and discover how to participate in the transformation of their world. (p.34)

Many educators responded to the call to disseminate knowledge about the environment and encourage children to embrace behaviours that would support and sustain a healthier planet. Yet, rather than being the guiding principle in education and “[i]n spite of their importance, environmental issues remain on the margins of the educational landscape” (Graham, 2007 p.376).

## **Good Intentions: Environmental education**

In the forty-four years since the first Earth Day, well-intentioned efforts to teach students about environmental responsibility through environmental education included “developing awareness, knowledge, concern for the environment, and skills” (Chawla & Cushing, p. 437). Educators encouraged behaviours such as turning off lights, reducing consumption of fossil fuels, and reducing, reusing and recycling, practices which Weintraub (2012, location 4493) describes as “shallow ecology”. When working at its best, “environmental education generates personal and intellectual growth and can inspire children to re-evaluate their own beliefs about humans’ relationship with the environment” (Song, 2008, p.19). It can encourage them to make good choices for living a more sustainable life. Yet, predominantly taught in secondary and post-secondary institutions, environmental education’s “...strong connections to traditional scientific disciplines” (Spearman & Eckhoff, 2012 p.354) and the replication of “western values and ideologies...promotes and reproduces hierarchical systems of knowledge and excludes multiple ways of knowing and living in the world” (Cole, 2007, p.40). Ironically, environmental education often uses the same pedagogy that helped create the current environmental crisis. Environmental education programs often exist in isolation, separate, as “add-ons”(Cole, p.37) with values that are at odds with the existing “widespread commitment to prepare students for success in an economy that is often individualistic, unsustainable, and inequitable” (Graham, 2007, p. 376). Anna Cole (2007) pointedly criticizes environmental education’s narrow focus on environmental issues which lead to a type of cultural myopia; an inability to address environmental issues in their social or economic context. In her article, Cole (2007) reflects on her experiences teaching environmental education, noting that one of the reasons her high school students did not embrace the ideas and issues explored in her course was that it reflected a set of knowledge, values and

beliefs that were not part of their world view. Disregarding her student's struggles to meet their basic needs, Cole regretted her eco-centric curriculum and argues that environmental education needs to be culturally relevant and sensitive.

In his seminal book, *Beyond Ecophobia: Reclaiming the Heart in Nature Education*, Sobel (1996) also challenges the efficacy of environmental education, especially in relation to elementary-aged learners. He notes that “[w]hile children are studying the rainforest in school, they are not studying the northern hardwood forests, or even just the overgrown meadow outside the classroom door” (p.5). Birt, Krug & Sheridan (1997) also expressed concern that children are learning about nature in other places through books and television but not by spending time learning about nature directly in their own surroundings. Sobel (1996) was the first to sound the alarm that the methods and “crisis” mentality being used to teach children about the environment might actually be creating a new set of problems. Believing it is not developmentally appropriate, Sobel (1996) says this approach could actually be compromising the purpose of environmental education. He writes, “[i]n our zest for making them aware of and responsible for the world's problems, we cut our children off from their roots” (p.3) and “lay the weight of the world's environmental problems on eight- and nine-year-olds already haunted with too many concerns and not enough real contact with nature” (p.4). He coined the term “ecophobia” to describe the dissociation, stress and fear children sometimes develop when they feel they are expected to “save the planet”. Sobel advocates that “[w]e can cure the malaise of ecophobia with ecophilia-supporting children's biological tendency to bond with the natural world” (p.8).

In spite of all of the time, resources and effort put into environmental education over the last few decades, Maniates (2013) believes that increasing awareness of, and concern about, environmental issues has not resulted in increased pro-environmental behaviours. He states

“[i]ndeed, based on behavior, it is difficult to distinguish students who have participated in environmental education from those who have not” (p.267). Clearly, if we continue to teach environmental issues in the manner that we have during the past four decades, it will not be enough to move children forward in their understanding of the environmental challenges, nor to incite a sense of wanting to take the action needed to protect our world. Song (2008) and Michael (2005) make a strong case for the need for environmental education to evolve, to integrate into all subject areas and become more responsive to the “crucial role of emotions in the learning process [providing] activities that both inform the mind and engage the heart” (Michael, 2005, p.116). One way to expand environmental education’s audience, and bring ‘heart’ to it is through the emerging field of environmental art education, also referred to as EcoArt education. Through EcoArt education, young people can develop a sense of the innate beauty, interconnectedness and interdependence of life on Earth. That caring connection can arguably foster the attitudes and desire to engage in pro-social, environmental behaviours. As discussed in the next sections, much of the research regarding how to develop and support ecological literacy in students recommends a multidisciplinary, developmentally appropriate, place-based model which is mirrored in the literature about EcoArt and Eco-Art Education.

### **What is EcoArt**

For millennia, art has reflected how nature is viewed and valued by humans (Peacock, 2004, p.11; Weintraub, 2012, location 547). Romanticizing idyllic landscapes, “[o]ld nature art showed a cultivated, Eden-like art without bugs or spiders” (Michael, , 2005, p.115) or it depicted human dominion over nature as a natural resource (Lankford, 1997, p.51). Then, in the 1960’s, two movements merged to create a new type of art. Environmental art was born from the

inspiration and influence of the growing environmental movement ignited by Rachel Carson's groundbreaking book, *Silent Spring*. At the same time in the United States, another movement emerged when artists became disenchanted with Modern Art, rejecting its emphasis on the individual and on art as "object", something that could "find its way into the consumer circuit" (Blandy, Coglion & Krug, 1998, p.232). Wallen (2012) explains that the early forms of environmental art "...were generally more concerned with challenging the conception of art than engaging ecological principles" (p.235). In her article (2013), Inwood cites Matilsky's definition of environmental art as an attempt to establish a "reverent relationship between the viewers and the earth" (Matilsky in Inwood, p.143). Environmental art moved art out of the galleries and into the fields and woods (Anderson, 2010, xi), and EcoArt, which embodies more of an activist stance (Inwood, 2003, p.19), democratized it, using art to make public, and political, the environmental issues and crises which were becoming increasingly apparent (EcoArtsofla.org). EcoArt moved beyond appreciating nature to advocating for it.

### **EcoArtists Inspire**

In her 2012 book, *To Life! Eco Art in Pursuit of a Sustainable Planet*, Weintraub defines EcoArt "as a mission, not a style" (location 165), stating that "[EcoArtists] are summoning the persuasive powers of art to rally an environmental crusade" (Location 7802). Weintraub has great faith in EcoArtists aptitude to effect positive environmental change, citing their ability to inspire through creativity, problem solving, and excellent communication skills. She reminds the reader that "art has long served as conscience of a culture" (Weintraub, location 162). These artistic skills and understandings are also encouraged by Elliott Eisner (2003) who has, for decades, advocated that the arts need to be integrated into all areas of curriculum because they

extend and solidify understanding and promote the risk taking required for academic success and emotional wellness.

Much like the works they create, EcoArtists are diverse and divergent in their purpose and intentions. Growing in numbers and influence (Weintraub, 2012) in the art world, some EcoArtists produce art to inform, to “educate by articulating the web of life more explicitly” (Sanders, 1992, p.80) and to make visible that which cannot be seen (Weintraub, 2012, location 306). The work of other EcoArtists’ “demonstrates practices that are attentive to local environmental issues in ways that are restorative, service- oriented and interdisciplinary” (Graham, 2007, p.379). Their ability to see the world through an arts-based lens enables many EcoArtists to create alternate visions and solutions that may not have been imagined in other fields, making collaborations between artists, ecologists and scientists mutualistic and increasingly frequent. Rios & Yankelevich (2013) explore the growing use of art as “a learning tool in science education and communication” (p.3). Established EcoArtists are creating artwork to educate and activate the public to become more eco-literate. These established EcoArtists serve as role models and sources of inspiration for educators, and have influenced the new field of EcoArt education, an exciting and viable alternative to traditional environmental education. Sanders (1992) states that “we must resist the tendency to think that there is one perfect tactic, one single way to effect change. We need multiple means to reach a diverse audience” (p.77). As explored in the next section, EcoArt education can, arguably, be forwarded as one of those multiple means to reach a diverse audience.

## **Eco Art Education**

EcoArt education is in an embryonic stage. It is such a newly emerging educational approach that there is very little research explicitly devoted to it, other than the work of Canadian scholar Hilary Inwood. EcoArt education, also referred to as environmental art education, uses art to teach children about ecology with the goal of fostering in learners the deep understanding and caring attitudes that will hopefully result in life-long environmental behaviours. As a leading proponent and researcher of EcoArt education, Inwood (2007) shares her enthusiasm, stating:

Eco-art education promises an innovative approach to fostering ecological literacy and the principles of environmental education, one that complements environmental education's traditional roots (found in the cognitive, positivist approach of science education) with the more creative, affective and sensory approaches of art education. (p.2)

Inwood admits that there is insufficient literature on the subject and “a surprising lack of critical attention to the issues and practices of eco-art education in refereed publications” (2007, p.10), especially in the area of elementary education. She laments the fact that there has been “so little comprehensive curriculum development” (Inwood, 2007, p.4) in this area. Inwood does, however, in her many articles and writings, give an idea of the purpose and possible ways in which educators can begin to incorporate EcoArt education into their classrooms. As explored in the following sections of this literature review, these include: making eco-friendly choices; developing EcoArt education pedagogy; place-based learning, creating a love for nature, encouraging ecoliteracy, developing 21<sup>st</sup> Century learning skills, embodying inclusivity and the importance of using EcoArtist exemplars.

### **Making Eco-Friendly Choices**

Both Inwood (2003, 2010) and Lechnitz (2013) offer practical suggestions for “greening” the art classroom, including conserving energy by turning off lights, using environmentally “friendly” cleaning products, using non-toxic materials and processes, recycling and, perhaps most importantly, reducing the amount of man-made materials used. Weintraub (2012) explains that artists must be prudent and choose art materials and processes that will not have a negative impact or cause harm either in the present or in the future (location 1417). Teaching students how to use resources and understand product life cycles (Lankford, 1997, p.52) is also an important part of helping students incorporate sustainability into their art production. To create low impact art, Inwood (2003) encourages the use of non-traditional materials, suggesting the use of objects found in nature, the upcycling of objects like plastics, cds and cardboard, and even using the students’ own bodies as material to create art or to act as a canvas (p.18). To minimize the use of traditional art materials which have a negative impact on the earth through their production and disposal, Inwood (2003) encourages students to plan their work before attempting it in order to reduce the need to use more supplies than necessary (p.18).

Modelling environmentally friendly practices, teachers can support students in making wise choices when making art. This enables students to develop, through observation and practice, the habits of sustainability. They are thinking about the choices they make and the impact those choices will have on the environment and their own future. Greening the classroom is a good first step, but the most important part of EcoArt education is finding good ways to organize and teach it.

## **EcoArt education Pedagogy**

Due to the lack of existing EcoArt education curriculum, art teachers may have a slight advantage in developing EcoArt lessons but they also have the responsibility of being, or becoming, ecologically aware in order to foster ecoliteracy in their students. Inwood (2010) is a champion of generalist, elementary classroom teachers because they often already integrate content learning into art and art into content learning, so the leap to EcoArt education might be easier for them. She believes “teachers must be key players in the process” (Inwood, 2007, p.3) of curriculum construction and delivery. Birt et al., (1997) and Peacock (2004) agree that teachers need to become ecoliterate in order to develop lessons that will serve their students in EcoArt education and across to other curricular areas as well. Teachers can re-envision old lessons that they have taught through a new ecological lens. Using new pedagogies that support EcoArt education, these lessons can be applied across other curricular areas as well. With EcoArt education’s goal of increasing ecoliteracy, educators can use some of the best practices and beliefs borrowed from arts-based education and environmental education. Five of these pedagogies, appearing frequently in the literature, can provide educators with a framework from which to develop their EcoArt education curriculums and lessons. These include: 1) the importance of place-based learning and developing a connection with nature, 2) integrating ecology and developing ecoliteracy, 3) using and developing 21<sup>st</sup> century skills, 4) ensuring that learning is inclusive and participatory, and 5) incorporating the work of EcoArtist’s as examples to inspire artistic and ecological learning.

## **Place-based Learning**

Sobel (2008), an advocate for connecting learners to their near-by natural environment through *place-based education* programs, believes that “[n]ature experiences seem to be a

necessary condition for any type of environmentally responsible behaviour” (p.147). Smith (2002), states that the aim of place-based education is “to ground learning in local phenomena and students’ lived experience” (p.586). Specifically concerned with ecology and art education, Taylor and Inwood, (2012) recommend getting outside to explore. Inwood further endorses this approach in *Take It Outside: A Place-Based Approach to Art Education*, where she makes a strong case for the importance of place in EcoArt education. Song (2008) also validates place-based learning because its constructive nature allows children to “change their thoughts, beliefs and views about the environment” (p.16) through their observations and art experiences in the safety of local settings which provide “the ideal familiarity and scale” for young learners. Adding to the discourse on the benefits of place-based learning, Birt et al.(1997) and Cole (2007) note that when learning in a natural environment, students are deeply engaged and have the opportunity to learn in multidisciplinary ways. Not only are children learning science and art in EcoArt education that takes place in outdoor locations, they are often also using language arts, math, and social studies skills. Cole’s belief that place-based learning is authentic and meaningful is supported by Stone (2010) who adds that learning locally “inspires [students] to learn in order to acquire knowledge needed to accomplish something they care about or that someone in the wider community wants or needs” ( p.38). Graham (2007) believes that place-based learning is ecologically and culturally responsive, that it challenges stale, traditional models of education, and that art created *in situ* can lead to a deep understanding and the desire to take action to advocate for a location. Yet, he warns that place-based learning does not “guarantee effective learning, or even increased student interest” (p.386). Graham (2007) expresses the concern that popular culture and media may have created a climate where it is difficult for students to see the value of learning in and about local places and spaces, and van Bloeckel (2009) concurs. Loughheed (2008), however, makes the

assertion that technologies can be incorporated in nature exploration and could provide an incentive to students and possibly an antidote to Graham's concern. Michael Stone (2010) acknowledges the academic benefits of place-based learning which include higher test scores, increased self-esteem, better problem solving and increased critical thinking skills, but believes that it is the connection to place that is the biggest benefit because "[w]hen people get to know a particular place well, they begin to care about what happens to the landscape, creatures and people in it" (Stone, 2010, p.38). As understood throughout this section, there is much consensus in the literature that spending time in nature is critical for students to develop the knowledge and desire required for stewardship and personal environmental commitment.

### **Loving the Places You Know**

Biophilia, the love of the living world, can be developed in children when they have positive experiences in natural settings. Getting students outside to observe deeply, use their senses to explore fully, and then to create art within their local environment, natural or built, is essential in developing the values of empathy and respect that students need in order to want to protect nature (Inwood, 2011 and Song, 2008 ). When discussing her project *River of Words*, Pamela Michael (2005) states that her mission was "helping children fall in love with the earth. Because people protect what they love, this is a powerful prescription for stewardship" (p. 116). Cheng and Monroe (2012) report that "spending more time in nature helps children develop a stronger connection to nature" (p.45) and "that connection to nature is a strong predictor of children's interests in environmentally friendly practices" (p.45). These findings are also reflected in Peacock (2004, p.50) and Sobel's (1996) work. Chiras (2005) extends this idea by noting that the amount of time and the quality of childhood experiences in nature are important

factors in “developing an environmental ethic” (p. 29) and that “without meaningful contact, love for nature cannot set seed, grow and blossom” (p.29). Graham (2007) agrees that “for younger children, experiencing and becoming aware of the beauty of the natural world is an essential step toward ecological responsibility” (p. 380), and Sobel (1996) cautions that in order to be developmentally appropriate, children need to “love the natural world before being asked to heal its’ wounds” (p.14). Whether or not a school is close to natural areas or parks, Peacock (2004, p.10) points out that “[e]very school is close to something. These are real places, where the real things that fascinate children go on”. Art can help to cultivate a love of nature in children. Michaels (2005), Inwood (2007), and Song (2008) all believe that the subjective, emotional strengths of arts-based education can bring ‘heart’ into nature experiences; helping learners make emotional and cognitive connections that may foster attitudes and behaviours that lead to caring about, and caring for, the environment. Arguably, it is our human nature to protect what we love, so creating a citizenship that understands ecology and our relationship and responsibility to the Earth’s systems is critical at this point in history.

### **Ecoliteracy**

An *eco-literate* person “understands the way things are organized to sustain the web of life” (Peacock, p.4). Fritjof Capra (2002) believes that teaching ecoliteracy needs to be the primary focus of education for all kindergarten to post-secondary learners. Calling for a pedagogical shift, Stone (2005, 2010) writes that educators need to integrate curricular knowledge, emphasize connectedness across all disciplines, focus on systems thinking and foster collaborative, innovative learning environments in which students can become eco-literate. Birt et al., (1997) also reflect that a multidisciplinary approach provides a better chance for all learners

to incorporate an understanding of the natural world, how it works and how we are accountable to it. Holloway (2012) clarifies another reason multiliteracies are important, stating “[b]y incorporating visual literacies and multiliteracies as part of the curriculum, teachers provide students with a much greater spectrum of opportunities to think through their relationships to the environment” (p.152). In Goleman’s book *Ecoliterate* (2012), he offers five practices to foster ecoliteracy in students:

1. developing empathy for all forms of life (p.64)
2. embracing sustainability as a community practice (p.67)
3. making the invisible visible (p.70)
4. anticipating unintended consequences (p.73)
5. understanding how nature sustains life (p.77)

Goleman (2012) believes that nurturing these five practices “cultivates the knowledge, empathy and action required for practicing sustainable living” (p.36). Michael Stone (2009) has identified fifteen competencies ecoliterate learners need and has created a framework to identify four principles for teaching ecoliteracy (p.8) in schools including:

1. nature is our teacher
2. sustainability is a community practice
3. the real world is the optimal learning environment
4. sustainable living is rooted in a deep knowledge of place

Stone (2010) also encourages educators to shift our teaching from content to system thinking by teaching the whole, the relationships and connections, contextual rather than content knowledge, qualities before quantities, and process and patterns (p.39). Ecoliteracy frameworks and systems thinking can be the new lens teachers use to transform pre-existing programming (Lankford,

1997, p. 52). These frameworks comfortably support EcoArt education and need to be kept in mind when planning.

## **21<sup>st</sup> Century Learning**

EcoArt education, by its very nature, encompasses many of the 21<sup>st</sup> century competencies that educators need to teach students to prepare them to succeed in a rapidly changing world. Due to its' arts-based nature, EcoArt education innately teaches students to think creatively and to work with others to solve problems or create solutions. In art, failure is seen as an opportunity to improve or re-envision and being a flexible and responsive learner is an important attribute in these challenging times. Partnerships for 21<sup>st</sup> Century Skills P21 Framework (2009) also notes that critical thinking and problem solving, as well as systems thinking and collaboration, are important skills and all of these are promoted and embodied in EcoArt education. One of the main 21<sup>st</sup> century themes identified in the P21 Framework is the importance of developing, among other traditional literacies, environmental literacy. The framework states that individuals need to understand environmental conditions and the effect of human behaviour, identify issues and problem solve solutions, and to take private and collaborative action to improve environmental problems (2009, p.3). The skills and behaviours outlined in that document are supported by Chawla (2007) who outlines that “children need opportunities for collaborative decision-making” (p.442). Richard Louv (2005) states “[w]e know for a fact that the arts stimulate learning” (p.137) and that “nature education stimulates cognitive learning and creativity” (p.138). EcoArt education characterizes many of the 21<sup>st</sup> century competencies, “offers opportunities for artistic forms of environmental activism” (Inwood, 2013, p.130), and encourages the cultural and ethical citizenship skills required from every student so they can feel empowered.

## **Inclusivity**

EcoArt education provides an opportunity for everyone involved to find a way to be successful and develop a sense of agency and efficacy. Pamela Michael (2005) states that “while not everyone can be an artist, everyone can be artistic” (p.113). She also notes that struggling students, who feel alienated from learning, often become engaged when the learning is explored using visual literacies rather than traditional language literacies. Another benefit of EcoArt education, noted by Inwood (2003), is that it “puts less emphasis on the final products and more on the learning process” (p.18), and because there is no right or wrong answer in art, everyone can feel successful. Weintraub (2012) notes, that “[e]very art interaction is individualized. It is a product of a person’s knowledge, intuition, interest and mood” (location 547) and, if valued by the teacher, this knowledge can free students to take risks with their learning. Being able to make choices and follow one’s interests brings freedom to learning, opening up a place for all children to explore nature and art in a manner that is personally relevant and meaningful. Stone (2010), talks about the need for educators to be responsive to students’ interests and to include them in the organization and direction of learning experiences as well. Students are able to communicate difficult concepts and emotions through art, thus giving them a voice that they may not have had. To accommodate the different stages of development when students are bonding with nature, Sobel (1996) suggests that children in early childhood (ages 4-7), the elementary years (ages 8-11) and in early adolescence (ages 12-15) should have a different “tenor” (p. 14). When teachers scaffold experiences and lessons, the students will feel safe, comfortable and appropriately challenged within practices like EcoArt education, and will feel encouraged to engage. To accommodate the abilities and needs of each developmental stage, Sobel (2008) recommends a school-wide “Ladder of Environmental Responsibility” (p.149) which gradually adds more

accountability and freedom at each stage. Attending to developmental needs and differing learning styles (Inwood, 2008 & Michaels 2005), EcoArt education has the potential to make all learners feel capable and included.

### **EcoArtist Exemplars**

One of the strongest recommendations Hilary Inwood (2003, 2007) makes about EcoArt education is the importance of using the work of EcoArtists to inspire students. Inwood (2007) values the EcoArtists for their innovation and ability to communicate complex scientific and ecological ideas in a unique and more approachable manner, and values their work, believing it to be “of equal importance as a research-based mode of inquiry in eco-art education” (p.6). Using the work of established artists as exemplars, teachers can share the ways EcoArtists bring attention to environmental issues or try to repair damaged systems. Students can examine work that is “attentive to local environmental issues in ways that are restorative, service oriented, and interdisciplinary” (Graham, p.379). Although not common household names, there are hundreds of EcoArtists to use as exemplars. When Weintraub (2012) was making the first cut of EcoArtists for inclusion in her book, she initially had over three hundred (location 179). Before sharing the works of an EcoArtist, educators need to make sure that the work is developmentally appropriate and that they know a bit about the process and purpose of the project. Through viewing and discussing the work of EcoArtist exemplars, students can understand the theme, purpose and possibilities in an EcoArt lesson in a way that words might not be able to convey. These works can inspire students to take action, to inform others about what they value in nature and to know that what they create could inspire or educate others to become more environmentally aware and responsible.

**Conclusion: What to do now that I know**

By allowing environmental and ecological principles to thread through the curriculum and bring disciplines together, and by making ecoliteracy and sustainability the unifying goal of education, the school system could send the message to our children that we value them and their future. EcoArt education is a first step in creating a more holistic education system and can serve as a gateway approach, allowing educators to try linking ecology and ecoliteracy to curriculum in multidisciplinary ways that are safe and easy. Peacock (2004) believes EcoArt education is a way to maintain children's "enthusiasm, curiosity and desire to know more about their world. It is about fire-lighting, not simply pot-filling" (p.4). Using the principles and frameworks advocated in the literature I read for this review, I am better informed, and further inspired, to move forward and create lessons that reflect what the research indicates is needed to teach children to love, advocate for and take action to protect the environment upon which life depends.

## **Chapter 3: Personal Project**

### **Nurturing a New Approach**

In this chapter, I will outline how I developed a new research-based approach to teaching EcoArt. Believing there was an imbalance in the extracurricular Club I had created and sponsored, I wanted to find a way to re-envision my practice using the research-based ideas I had been exposed to during my literature review. I will outline the precipitating problem, the process of developing a new approach and the experience of testing this new approach during a Spring Break EcoArt Camp. I will share the professional and personal understandings that came from this experience and consolidate a vision for how this learning will impact my future extracurricular and classroom teaching. Through the metaphor of an apple tree, the growth of this new approach will be revealed.

### **Fertile Ground**

When I developed an interest in EcoArt education several years ago I had no idea where to start and, initially, no vision of what I wanted my EcoArt Club to look like. At that time there was very little information that was easily accessible, so without experience or role models to use as a launching point, I had the unique opportunity, and freedom, to create curriculum from my heart. I spent hundreds of hours looking through websites and books on ecology and art, trying to gather ideas for my new extracurricular club. At first, I created projects that the students enjoyed and that I was proud of. Many of the projects I created had a service component, like raising money for orca research or planting a pollinator garden, but, as time went by, more often than not, my lessons ended up being about upcycling, changing what many would perceive as garbage into

something artistic and beautiful. Many of the projects were too challenging for the majority of students who, because of their young age, needed a lot of direct support. For example, some of the primary-aged students could not roll the delicate, magazine paper beads or create clean, sharp folds when making scrap-paper origami cranes. I was frustrated that many of my lessons had drifted away from using art to teach about big ecological ideas and were instead becoming more about the 3 R's- reducing, reusing and recycling. My planning had shifted from art to craft. We had taken things that were easy to recycle and made them difficult or impossible to recycle. It was a disheartening realization and after years of warehousing mountains of recyclables, I put EcoArt on the backburner and took a break. Then, with EcoArt always tugging at my heart, and with the students asking about it often, I decided to use my masters as an opportunity to reconsider and rethink the way I approached EcoArt. I already knew many of the benefits of teaching EcoArt from my years working with my afterschool Club, but I wanted to find a way to make the art and ecology work in a more harmonious and balanced manner. I was ready to begin searching for an even better way to teach.

### **Gathering Seeds**

In my literature review, I found some guiding principles to support changing my planning and practice, three “seeds” from which to grow an EcoArt program that synchronized the art and ecology of EcoArt. My excitement about teaching EcoArt was reignited. The first new idea developed when I was reading David Sobel (1996, 2008) and Hilary Inwood (2011) who encourage place-based learning as a powerful way to connect children to their local environments by getting them outside into nature. The second idea, encouraged by the work of Heather Anderson (2010) and Linda Weintraub (2012), emphasize the importance of using EcoArtist

exemplars as a way to inspire students and show them how people can make positive changes in the world by creating art. The third important idea came from Michael Stone (2010) and Daniel Goleman (2012) who both wrote about the importance of fostering ecoliteracy, explaining how to help learners understand the ecological principles that make our world work. These three ideas offered me hope and practical alternatives for how I could grow a better EcoArt experience.

### **Sowing Seeds: Place-Based Learning**

Perhaps the seed with the most potential that was planted in my mind is the need for children to be outside in nature doing art so they can develop a relationship with their local environment. Cheng and Monroe (2012) explain that knowing their surroundings leads children to value and then, hopefully, protect them. I had not thought a lot about place-based learning before my literature review, but immediately realized this was the missing piece in how I had previously taught EcoArt. I had been trying to teach the children to love and respect nature by just talking about it, inside, expecting that they had spent time in nature and already cared about it. As pointed out by Louv (2008), the prevalence of technology, safety concerns and over-scheduling of afterschool activities has resulted in a generation of young people who have had limited opportunities or experiences in nature. I realized that if children are not getting outside in their home lives, then we need to take them outside at school. In two years of teaching EcoArt, I had only taken the children outside a handful of times, and never off of the school property. Song (2008) explained that local settings provide opportunities that are familiar, but not too familiar, and close, but not too close, thus creating in students both a sense of adventure and of safety. Reading Birt et al. (1997) and Cole (2007) reminded me of the wonder-filled days of my childhood spent exploring at the edge of the forests and creeks, and I became saddened that my

EcoArt students were not having the same opportunities in nature that I had. For years I had been teaching art about, for and from nature but now, I realized, I needed to teach art *in* nature.

Exploring the land, rivers, forests, lakes and oceans more deeply by creating art in those locations could help my students make a direct connection between the ecology concepts I was teaching and the need for environmentally proactive behaviours. It became clear that my future planning needed to provide place-based learning opportunities on a regular basis.

### **Sowing Seeds: The Importance of Exemplars**

The second seed of knowledge I gathered from my literature review was the idea of using established EcoArtists as exemplars in lessons. The work of EcoArtists could provide an inspiring platform from which to launch lessons, a practice highly recommended by Inwood (2003) and Anderson (2010). In previous years, I dismissed the art of EcoArtists like Joseph Beuys and Robert Smithson, believing they had little to offer my elementary-aged students. I had not realized how powerful and political their work was because, initially, it had seemed like “landscaping” or “arty gardening”, for example. Reading Weintraub (2012), Anderson (2010), and Inwood (2007) explained the purpose, relevance and power of using EcoArtist exemplars in EcoArt education. As I learned the names of EcoArtists from the articles I read, I looked up their artwork online. I was now able to excitedly understand how I could adapt their work into projects for my students. Looking at examples of art created by EcoArtists could help my students visualize and understand some of the big ideas in EcoArt. They could see how artists embedded ecological principles in their work in order to educate people about environmental issues. Using EcoArtist exemplars to launch a lesson was a comfortable concept for me because it mirrored the successful and familiar way that children’s literature is often used as inspirational mentor texts for

writing, math, social studies and science. I realized that adding the work of EcoArtists into projects and lessons could be an important part of my vision for the new way I wanted to teach EcoArt. Finding new artists to inspire lessons was fascinating, personally satisfying and would often lead to the immediate creation of related resources that I could add to my EcoArt blog.

### **Sowing Seeds: Balancing Ecoliteracy and Art**

The third seed the literature planted into my thinking about EcoArt education came when I was reading about ecoliteracy. Books by Goleman (2012) and Stone (2005) made me realize that many of my lessons did not balance the principles of art and ecology, and that this would need to be a focus for future lessons. Inwood (2013) stated that balance between the two areas can be achieved without “subverting one over the other” (p.137). Attending to both educational aspects equally when I am planning is essential if the big ecological ideas and actions are to be clearly understood by the students. Sometimes, in the planning of past EcoArt lessons, the ecological or environmental concepts were hard for students to understand because they were not clearly conveyed or because the students and I became so focused on the art component of the lesson that we forgot the ecological message. Another reason for the ambiguity of ecological principles in past EcoArt lessons was that I did not have a clear idea of what ecological principles I should be teaching and reinforcing. The frameworks and specific learnings associated with teaching ecology were well outlined in books by Goleman (2012), Stone (2005) and Peacock (2004), making the planning of the ecological component of lessons much easier now that the teachings are more clear and easy to access. The end of EcoArt class had always been a rush to clean up, with parents waiting. I would try to ask the students to parrot back the ecology message and call

out an environmental action they would try and take during the week, but often we lost our opportunity to restate and reemphasize the ecological ideas of the lesson in the chaos of clean up.

### **The Root of the Matter**

For my master's project, I had initially intended to create an EcoArt curriculum. In the fall, I created a blog (<http://onehandoneworld.edublogs.org/>) to put my anticipated curriculum onto because I wanted to share resources and ideas with other educators so that their journey into EcoArt education would be easier than mine had been. With new ideas and practices in mind, however, I now wanted to create an EcoArt experience that allowed students to learn about the environment *in situ*, to be inspired by the best examples of work by EcoArtists, and develop the attitudes, knowledge and values required to become eco-literate. It was my hypothesis that this shift would improve the EcoArt Club experience, but I was curious about whether these new ways would have a positive impact on the children's willingness to engage in environmentally responsible behaviours. Would going outside increase students' connection to and caring about the environment? Would using EcoArtist exemplars help students understand how art can be used to experience, appreciate, educate and advocate for nature? Would teaching this form of place-based, arts-based EcoArt education increase student's ecoliteracy? To answer these questions, I would need to test the new approach to assess the benefits and the barriers. In order to have the opportunity to test my belief, I decided to host an EcoArt Camp.

### **Sprouting an Idea: EcoArt Camp**

Getting started took a lot of energy and planning. Knowing there were not enough consecutive Friday afterschool sessions left before April that could be used to teach the lessons I

wanted to test, I decided to use the Spring Break holiday to try out the new approach I was developing. By hosting the camp, I would be able to teach five lessons and reflect on the strengths and weaknesses of this new method in order to determine if it should replace the old format. The added outdoor learning component necessitated that I increase the length of the lessons. Traditionally, EcoArt Club lasted one and a half hours, but to accommodate the time we were going to spend outside and off campus, I decided on a new three hour format. In a multi-aged group of Primary and Intermediate students, I was worried that this longer format might be problematic for younger children who have shorter attention spans and that their needs might interfere with the older students' ability and desire to stay on a task for longer periods of time. Would this time frame work for such a diverse group of learners?

Before I invested too deeply in the planning process, I needed to find out if hosting an EcoArt Camp was even possible over Spring Break. I needed to get permission to do an EcoArt Camp from my principal, and fill out a Community Use of District Facilities and Grounds Application form to get permission from the School Board Office to use the building over the holiday. When I had confirmation that I could run the camp and had a venue, I realized that, for safety reasons, I would need to have another adult with me. This realization created an unexpected opportunity that became an important part of the success of our week long experience. I started to make a list of people I knew who have a special interest in the arts or in nature. To be on the list they had to be good with children and already have a criminal record check. I made a list of five such people I thought might enjoy participating, and was dumbfounded when they each agreed to join our program for a day. Having one adult signed up for each day meant that I would have the help I needed, but it also meant that the students would have more support throughout the morning as well. I decided to call these helping adults the EcoArt Buddies. Their

job would be to spend the morning with the group, acting as mentors, helping to supervise students and engaging them in discussion about their outdoor experiences and art. I had a tentative schedule of art and nature experiences based on themes and the work of EcoArtists, and after having conversations with each of our adult EcoArt Buddies about which lessons would best suit their area of interest, I was able to complete the schedule.

Now that I had the adult supports in place and the lesson topics chosen, the next step was to send a flyer home to parents to explain the premise of the Spring Break EcoArt Camp and to provide a detailed itinerary of each day at Camp. The parents signed a permission form, and that helped me generate a list of children who wanted to, and were able to, attend the Spring Break EcoArt Camp. I did not think I would be able to get many students to sign up because the camp was scheduled on a holiday and a lot of families in our area travel during Spring Break. I was hoping to sign up at least five students, but by giving a detailed overview and enough time for families to plan holidays around the camp, I was able to get fourteen students between the ages of five and thirteen signed up. I was now confident that the Camp would work and I began to refine my planning.

### **Supporting the Sprout: The Lesson Plan**

As I read and wrote my literature review, I thought about how I wanted to plan and implement lessons differently. I needed to create a method for this new approach that fit with my beliefs about teaching. I wanted the learners to be at the heart of all my planning and tried to think of the best way to embed getting into nature, using EcoArtist exemplars, and balancing ecology and art. I was cognizant of wanting to allow the students more autonomy and choice during the day, but needed to make sure that safety and time constraints were attended to as well.

When I was reading, I found a wonderful schematic in Linda Weintraub's 2012 book *To Life! Eco Art in Pursuit of a Sustainable Planet*. Each chapter for each EcoArtist had the same format as in Figure 1 to highlight the areas their work represented.

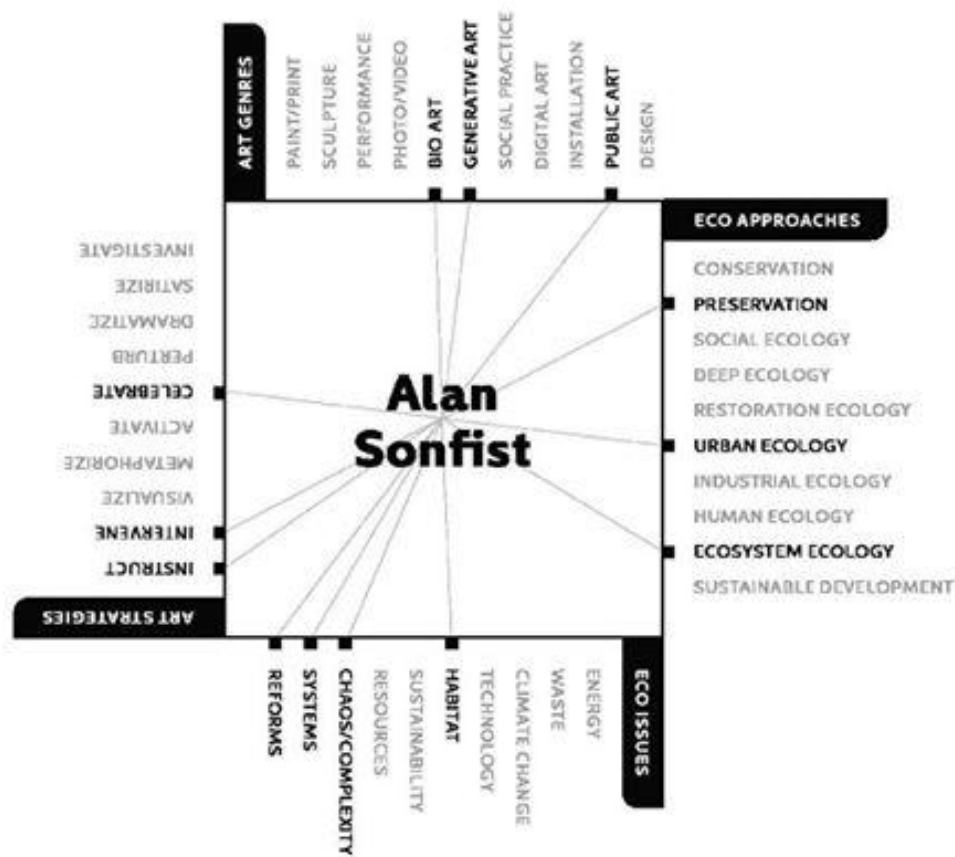


Figure 1: Diagram of the Schematic developed by Linda Weintraub (2012)

I was impressed by the way the art and ecology concepts were organized and how easy it was to identify which ideas were used in the work of each artist because the focus concepts were highlighted in bold font.

I decided to use some of the elements of Weintraub's graphic organizer as a model to help me create a format for my lesson plans. I created a similar schematic, inserting my own criteria and content to help me balance the age-appropriate art and ecology principles and content I wanted to keep in mind while planning. Having all of the concepts I want to cover in an EcoArt

lesson laid out clearly on the page, I could then pick certain principles or concepts to feature in a lesson, bolding them so my lesson focus was clear. To choose the descriptors for each of the four areas I created (art genres, art principles, ecological concepts and eco actions), I used Ecological principles taken from Stone (2005) and Goleman's (2012) books on ecoliteracy. The art principles and genres were adapted from my own experience as a teacher who has taught many art lessons. As in Weintraub's model, the concepts that frame the centre are bolded if they are part of the lesson so that they stand out. I found this visual focus indicator very helpful in ascertaining if I had a good balance of art and ecology in the lesson. I had wanted to create a lesson plan format that would have the big art and ecology ideas on it so that I could remember them quickly and would not have to go elsewhere to find them. I hoped quick access to these ideas would make the planning process easier and more streamlined. As well as the art and ecology descriptors, I added a place for notes about the EcoArtist exemplar, the materials needed, the specific ecology notes and also an area for assessment. Adapting the space in the middle where Weintraub placed the EcoArtists name, I used that space to insert a sample of the exemplar's artwork and links to their webpage or other media that would help students look at, and learn about, the artist's work online. The lesson plan format had evolved to look and function quite differently than Weintraub's schematic, I liked the way the lesson plan was structured, but it was the method that grew from the creation of the format that had the most profound impact on my planning.

**EcoArt Lesson**

Exemplar Artist	Ecological	nested systems	Interdependence	diversity	cycles	flows	development	dynamic balance	networks	Materials
										line
space	observing nature									
shape	upcycling									
value	natural materials									
colour	creating to inform									
texture	restoration									
form	fundraising									
Art Principles		inquiry								
Procedures	illustration	collage	photography	textiles	printmaking	drawing	mixed media	painting	Art Genres	Assessment

Procedure:

\*\*Ecology notes on reverse.

Figure 2 Lesson plan format I developed based on Linda Weitraub's format.

### Supporting the Sprout: The Method

I needed to consider the method that I wanted to use to teach these five new EcoArt lessons. Would they be child-centred and discovery-based, or would they lean more toward being teacher directed? I wanted to ensure that there were times when the students could lead their learning through choice and by giving them time to explore, but, I also had to consider the purpose which would require some direct teaching of ecology and art concepts. Another aspect I needed to keep in mind was safety and the timeframe we had available. I knew I wanted to prepare the students for their time outside by giving them some background knowledge and setting the purpose for our outdoor experience, and I also wanted to incorporate a time when the

students could create art in nature. These first three parts (ecology lesson, outdoor exploration and sketching) dovetailed well and the EcoArt Exemplar study and art creation, which would occur inside, fit nicely behind them. Once I had organized the steps, I was happy with the flow and balance of the lesson which moved from teacher-directed, to student exploration, back to teacher-directed and finally returning to student exploration. The organization of the day followed a structure that could be flexible depending on factors like the location of the fieldtrip or scheduling challenges like lowtide times. The basic method, however, included the following seven steps:

1. teacher introduces ecology lesson
2. outdoor exploration
3. sketching *in situ*
4. reflect on sketching and outdoor experience *in situ*
5. teacher introduces the EcoArtist exemplar
6. students create artwork
7. students reflect on artwork and choose an environmental action

The mornings would start with an ecology lesson, taught with a combination of discussion, video, PowerPoint or demonstration. Research by Sobel (1996) and Song (2008) warned against taking a problem-focused approach that could cause anxiety in the students, so I needed to keep the ecology message proactive with “no tragedies” (Sobel, 1996, p.33). The ecological learning needed to be appreciative about, and of, nature and focused on behaviours we could incorporate in our lives that were helpful to the environment. This could be a time to discuss, or make a chart, about positive environmental behaviours related to the ecology topic. Then, we would go outside and try to connect the concepts in the lesson to what we saw in the natural environment we were visiting and exploring. While I was conceptualizing this part of the method, I remembered Holloway’s (2012) assertion that “ the freedom and independence they

were given while on the fieldtrips was an invigorating antidote to the usual constraints students so often associate with formal learning” (p.158). This is where I would need to find a balance between safety and the children’s need for choice and exploration. In the natural setting, they would have the opportunity to move around, choose what they wanted to observe and think about, and have quiet moments of contemplation. For the next activity, I wanted to have a quiet transition back to the school, so I decided we would sketch *in situ* before returning to the classroom. Sketching also served as a bridge between the ecology-focused early morning and the arts-focused midmorning. Back at school, I would introduce the work of an EcoArtist on the Smartboard and the students and I would explore the art and ecology principles in our featured artists work. The component parts of this method could easily be reorganized, if needed, to meet the needs of specific locations and concepts being taught. With five lessons formatted around a method that would provide enough structure to support safety and concept learning, and enough freedom to engage learners, I was ready, willing and able to host a week long EcoArt Camp.

### **Seedling Start: Day One**

The first lesson (Appendix A) of EcoArt camp focused on spending time in the new outdoor classroom a colleague had created for her Masters Project. It was located only steps away, in a triangle of forest nestled between our school, a busy neighbourhood and the Civic Centre. In the classroom, we talked about the format of the week and that we would be leaving the school grounds often. We went over etiquette and safety rules, making clear the expectations for responsible behavior that showed respect for the people we were with and for the natural environments we would be exploring. We were going to stay together, so that visual contact was always maintained by the students and at least one adult, we were going to follow road safety

rules and stay on paths and trails. Then I introduced the adult volunteer, who all of the children knew. I explained she would be our “EcoArt Buddy” for the day and she was going to take us to the outdoor classroom she had made in the forest beside the school. Unexpectedly, we were also joined by another staff member, and her toddler, who wanted to participate in the lessons and lend a hand. Sadly, we had two students who were not able to come but their places were filled by two new students who had not registered on time but wanted to join. Initially, I was very nervous about leaving the school grounds and had visions of news reports broadcasting lost children or bear and cougar attacks. Knowing our proximity to populated areas, I put my fears aside. We had three adults and twelve, smart, resourceful, co-operative children and, in all likelihood, it would be a safe and pleasant day.

Crawling up the muddy bank and pushing through the cedar boughs, we entered the forest. As each child walked into the space you could hear gasps of wonder. Surprised by the beauty of the sun dappling through the canopy, our group followed the groomed trail to the outdoor classroom. The smiles on everyone’s faces led me to believe that all were appreciative of this environment and experience. Students intuitively and silently took a seat on the tree trunk stools that formed a circle in the clearing. We sat for a long moment in silence looking around at the multitude of plants and mosses that gave the outdoor classroom a green glow. Quietly, I began to ask students to close their eyes and listen, to try to identify the sounds of the forest. Then we shared what we had heard, with children confirming the observations of others. With eyes closed again, we breathed in the moist, cool forest air, smelling the cedar wood of the seats and the loamy, richness of the leaf litter. We talked about the different levels of the forest, from floor to canopy, and talked about how each plant lived in certain places for certain reasons- that there was purpose and design in the forest. I asked the students to take their sketchbooks and find a special

spot of the forest, where I could see them and they could see me. That spot would be just for them, to visit and know, and go back to every time we came to the forest, so they could develop a relationship with it. There they would sketch, taking care to observe the details and relationships between the living things that they could see. It was when the children were nestled into special places in the forest, sketching intently, that I knew being in nature was having a positive effect on the children and on me and would need to be a key part of future EcoArt lessons. Every student was completely absorbed in the task of sketching and engaged in getting to know the immediate environment around their special spot in the forest. We returned to the circle in the clearing and, perched on log stools, shared our sketches. The students were tentative about showing their sketches to each other at first, but a few did, and we discussed their observations, the fact that none of the trees seemed straight, and why that might be. The sketches were so timid and barely reflected the environment being sketched, but I remembered Hilary Inwood's (2003) wise advice about rewarding the process not the product, and hoped that as time went on, they would gain confidence and observation and drawing skills. We talked about signs of human interaction with the forest when one student shared their sketch of a stump. Nurse logs, the filtered sunlight, the multitude of mosses and the moistness in the air were all discussed and then students each took an iPad and took between six and eight photos of things that interested them in the forest. By this time, some students who had not dressed appropriately were getting very cold and we decided to return to a warmer environment. Back at school, each child edited their forest pictures to black and white and made a PicCollage of their work that we printed out for display. After that we looked at a PowerPoint that showcased the ephemeral art of EcoArtist, Andy Goldsworthy, who uses natural materials in their natural environment to make beautiful designs that have no negative impact on the environment and serve to highlight the beauty of nature. The students

took a basket of found materials outside and searched the schoolyard for plants, sticks, and catkins to supplement these supplies. Then they created artwork inspired by Goldsworthy, alone or in collaboration with a friend. The students were very excited to take a gallery walk and share their work with others, and they took a photo with the iPads of their work because wind, rain and other forces of nature would change it, eventually leaving no trace of what the children had created.

The experiences of the first day, with the exception of the very cold student, had been full of wonder and delight, and other than making sure that we had proper clothing for everyone next time, there were very few changes that needed to be made. The students had responded to the outdoor portion of the morning with awe and engagement that manifested in respectful, careful behaviors in the forest. It appeared that, yes, going outside did have an effect on children's connection to nature. Each child had made a connection to the forest, had come to know one special spot and had treated the environment with reverence and care. The students knew that something special had happened because they spoke in whispers and talked about how they felt in the forest and what they valued about it. Our EcoArt Buddy, who had created the outdoor classroom, was thrilled that it had had such a positive effect on the EcoArt students. The students had seemed to enjoy the freedom and the independence they were given in the outdoor component. I was thankful that the weather had co-operated and that the children had enjoyed their time outside and their time creating designs using natural objects in natural environments. I was especially thankful for the adult support I had because there was no time during the lesson when I felt flustered, as I had in past EcoArt lessons, because I couldn't help a child. With the extra support, students' needs could more easily be accommodated and everyone had time to talk

with an adult about what was important to them and what they were trying to problem solve. The first day had gone so well. Could the success of the day be repeated, or did we just get lucky?

### **Measuring Growth-Day Two**

The second day was wet, dark and overcast, and did not provide the puffy clouds I had hoped for when planning the “Weather Walk” lesson (Appendix B). Starting with a lesson on the water cycle, I shared with the students how knowing and understanding the cycles of nature can help us protect them. As a group, we discussed the effects of weather and climate on humans and then I talked to them about how, for the first time in history, humans were now affecting climate. Not wanting to get too deep into the overwhelming and complex issue of climate change with such young learners, we put on rain jackets, picked up umbrellas and went for a walk to photo-record signs and effects of weather in the schoolyard. Each student used an iPad to take pictures of signs of weather. Some took pictures of the overcast sky, or rain drops on leaves and play structures, or even reflections in puddles. They took pictures of water-eroded rock and dams previously constructed by kids in the sandy area near the hill. Tucked under a row of umbrellas resting on the ground, the students sketched silently for twenty minutes. I noticed a marked improvement in several students sketching. Several students were having greater success with proportion and balance in their work and many were adding details. It was clear that the discussions in the forest about looking for lines and shapes had been incorporated by most students. They were trying to work out how to show the twisting, mass of the salmonberry bushes without scribbling. Returning to the classroom, I shared the webpage of EcoArtist Zaria Forman, who makes photo-quality drawings in pastel of clouds, water and icebergs. We read about her concerns about global warming and climate change and then made an idea-cloud of ways we

could lessen our impact on climate (i.e. walk instead of drive, buy products that are not manufactured in highly polluting ways, buy food produced close to home, etc.). Students began in earnest to create cloudy skies in pastel like the exemplar artist but this proved to be very challenging. Our room did not have heat because the school was officially closed, and trying to move the pastel on the paper with cold hands was almost impossible. The students tried to problematize this but even rubbing their hands together vigorously to create heat didn't help blend and smooth out the pastels. The drawings looked like they had been done in crayon and had none of the subtle qualities of clouds that the students had been trying to capture. Together, we eventually conceded that the project was too difficult for us at this time. Our failure gave us great insight into, and appreciation of, the extraordinary talents of Zaria Forman. I regret not having chalk pastels as a backup because the students were reluctant at first to give up and, if they had had an easier medium to work with, they might have found the task easier and more rewarding. We ended up switching to a more stylized, "zentangle" version of clouds with lines and designs nested inside archetypal cloud forms. Everyone felt successful with this new task and having a backup art activity allowed the students to end their morning on a positive, successful note. I was very impressed with the students' ability to adapt and move forward after encountering difficulty, and with their willingness to keep a positive attitude even when the task became too challenging. The adult EcoArt Buddy who had joined us on Day Two, had inspired our lesson about weather because she is fascinated by the constantly changing conditions of Spring weather on the North Island. Our visiting adult from the day before joined us again with her son, so we had three adults and thirteen students again. Although not as smooth or easy as Day One, one of the most important things that happened during the week occurred when we learned the unintentional lesson about the importance of perseverance and problem solving in art and then connected that to

environmental learning. When things don't work, find another way to solve the problem. As a generalist classroom teacher with very little formal training in art, I realized that there was still a lot I had to learn about using art materials like pastels. It was clear that developing my own art skills and experiences would need to be a priority for me in the near future so I will be better able to anticipate problems and help my students work through them and continue to learn and explore.

### **Growing Stronger-Day Three**

Day three had archetypal spring weather- rain, sun, hail, repeat. We started the day with a lesson (Appendix C) on the majesty of migration and learned a lot of interesting facts about migrating birds. Students were surprised to find out how far some birds migrate and how long some stay in the air during migration. I showed slides of some of the migrating birds that we might see at the beach at this time of year, and, packing our wagon with umbrellas, bird books, binoculars and snacks, we made our way to the beach near the big, jagged eagle tree. During the entire walk down to the beach, several students were discussing which birds they were seeing along the way might be migrators, and our EcoArt Buddy was fully engaged in the conversation. Even though most of the children didn't know our EcoArt Buddy, when they were introduced to her and told that she was an artist, a Brownie leader and a nature lover, the students all accepted her into the group. The sun came out as we arrived at the beach where we saw many eagles, dozens of Canada geese in flight and on land, a flotilla of buffleheads and a mating pair of northern shovelers. We explored the beach, noting signs of geese in the grass and tracks of shorebirds on the sand. We noticed the shells on the beach and one of the students wanted to take some shells she had collected home. Rather than saying no her, I asked her to look around to see

how the shells were used in the beach ecosystem. She noticed that the sand was heavily comprised of small shell particles and, understanding that her shells could eventually become beach, she decided to leave them back where she had found them. We talked about how the shells returned nutrients to the system, and how some snail shells became new homes for creatures like hermit crabs. That young girl understood the saying “take nothing but pictures, leave nothing but footprints” in a way she might not have if she had not spent time on the beach, exploring how it worked and build a caring connection toward it. We had spent a lot of time on the beach and when I asked everyone to pack up, there was a cry of disappointment. Students pointed out that they had not had a chance to sketch. I was surprised at how important this part of the routine had become to them, and they sat for a half hour sketching in the park and on the beach. During the sketching time, whether they were sitting near a friend or off on their own, the students were completely engaged, intent on their solitary task. There was growth in ability and confidence already in their sketching, and it was clear that many of the students were determined to improve their sketching skills. When we returned to the school, I shared the work of Victoria painter, Anne Hansen. I was pleased with the response of the students to her work as they noted, through my questioning, the bright colours and simple bird shapes in her work, and how her newer paintings included a lot of species diversity that had not been present in her earlier work which focused almost exclusively on oystercatchers. The students enjoyed sketching and then painting waterfowl and several students were eager to further explore this project by producing more than one painting. The time and care they took with their work resulted in impressive, high quality paintings. So engrossed in their work and unwilling to stop at noon, I had to promise them more time the next day so that they could finish up. The students had enjoyed working with our EcoArt Buddy, whose ease with children and enthusiasm for art and nature made her an excellent role

model for the children. The excitement she shared about our EcoArt Club, her support in identifying birds and painting, and her desire to be involved with future lessons, made me feel like what we were doing, and how we were doing it, was important and worthwhile. I reflected that at no time during the week had weather limited the outdoor component of our lessons and no amount of rain had dampened our excitement about going off campus. Three successful lessons in three different locations indicated to me that getting outside in nature was having a positive effect on the students' ecological and art learning. I was surprised to note the effect it was having on me as well. Even though I was ill with the flu, I couldn't wait to get outside with the students. I felt calmer and more connected to my group than I had ever felt, and several times, I could tell by how the students were talking about being outside and about the art projects that they felt the same way too. One student, bursting with excitement and passion, brought me to tears when she blurted out as she painted that EcoArt made her care about the world and see it more clearly. This relaxed, interactive, nature-based form of EcoArt felt right to me and to the kids.

### **Growing in the Garden: Day Four**

The fourth day was the first day of spring. We spent the first hour finishing up paintings from the previous day, with many students starting a second or third piece. We were joined again by the creator of the outdoor classroom who had joined us to be a student and participate in creating art. Her excitement and pride in completing her waterfowl painting was palpable. At 10:00, our EcoArt Buddy for the Prayer Flag project about Spring (Appendix D) arrived and was introduced to the group as a textile artist and expert quilter and thread painter. She showed us her sewing machine and we looked at photos of her huge, tidy fabric cupboard and some of her very artistic quilts that look like pictures painted with thread. While our textile artist EcoArt Buddy

cut out prayer flag squares, the students and I went on a “Spring Things” walk to gather ideas to put on our “Spring-spirations” Prayer Flags. We talked about seasons being another of nature’s cycles and brainstormed on the board the many signs of spring we had seen on our walk or things we were looking forward to seeing soon. The list included spring things like tulips, hummingbirds, salmonberries, bunnies, new leaves, and much more. Students chose one “spring thing” from the list we brainstormed on the SmartBoard and then drew that thing with Sharpie on fabric squares. One five year old drew a bunny on her prayer flag fabric square and her brother drew a hovering hummingbird on his. During the process of drawing, students were silently engaged, completely focused, and added a lot of detail in their work, including adding a border. When they completed a prayer flag and our EcoArt Buddy sewed up their flags so that we could string them together, each child asked to do another flag with a new “spring thing” on it. Someone had the idea of using a stick to hang individual flags when they were eventually taken off of the group string and sent home, so several students went outside and collected windfall alder sticks for this purpose. Our first EcoArt Buddy of the week had joined us on the fourth day as a student to create artwork. Her calm, focused energy and attention to detail was mirrored by the students. The day was peaceful and productive. The children’s appreciation of nature and for the special status of the first day of spring could be witnessed in their art projects and in the conversations they had about how important nature was, and what they liked best about it, and how it made them feel. Quiet conversations about how one family went to the beach during the low spring tides to get geoducks and how another child loved to go for walks with her dad through the trails in their gumboots so they could jump in puddles started a storm of conversations about what the students liked to do in spring. I was thrilled by the success of the lessons, by the support we had been given by our EcoArt buddies, and by the commitment and focus shown in all aspects over

the four days we had been involved in the camp so far. I realized that this was the way I wanted to teach- with students who were engaged and happy to be there, who were willing to take risks so they could achieve success or learn from failure, with having the time needed to explore ideas and develop skills and understanding, all while integrating knowledge and building connections through experiences in nature. I realized that I wanted to share this type of learning opportunity beyond my EcoArt Club. I wanted to share this deeper, more connected kind of learning experience with the children in my classroom. I began to think about how I could adapt this type of teaching and learning to fit into a classroom schedule. This holistic, interconnected, big-idea, in nature and about nature teaching and learning needed to be happening beyond the comfort of my EcoArt Club and extended into the daily life of the primary classroom. This realization came in as a whisper, but by the end of the day was a cacophony of possibilities I was excited to explore.

### **Branching Out: Day Five**

The last day of camp began with bright skies but heavy hearts. Due to travel plans by families, our numbers had dwindled to eight children and many of those students commented that they were sad that it was the last day of EcoArt Camp. Several students asked if we could continue and have just one more day. By this time, we were no longer a group of individuals we were a community of EcoArtists, accepting of each other's differences and appreciative of each other's abilities. Several little frictions that had existed between a few students had disappeared and been replaced with encouraging comments about each other's artwork. We started the day waiting for our EcoArt buddy, who never arrived, but we were happy that teacher who had joined us as an EcoArt Buddy the first day and a student on the fourth day, joined us again. I was happy

we were not without support. Before leaving for the beach, we started our lesson (Appendix E) by watching a Youtube video about the food chains and the food pyramid. We learned that you need a lot of little fish to feed the middle-sized and big fish. To make a model of the food pyramid, we drew chalk fish on building blocks of various sizes that were painted with chalkboard paint and then we built a food pyramid using those blocks, positioning eight little fish blocks at the bottom of the pyramid, three middle sized fish blocks in the middle layer and one big, long fish block on the top layer of the pyramid. I explained that about 95% (Sylvia Earle TED Talk) of the big fish had been fished out of the oceans and that people were now fishing down the food chain, catching ever smaller fish. Taking several little fish blocks out of the pyramid, the students realized that at a certain point, the little fish could not support the upper layers of the pyramid and that taking too many little fish out could collapse the whole thing. The students could see the importance of little fish like herring and pilchard and that we need to conserve the fish in the ocean so that there will be enough for the bigger fish, for us and for future generations. We then looked online at the art of Ahmed Nadalian, an Iranian sculptor, who carves images into rocks and then leaves the artwork where they are or transports them and leaves them in other sites. Inspired by his Living Fish Project (<http://www.webart.com/riverart/fish/index.htm>), we too were going to draw little fish on rocks and scatter them on the beach for people to find and ponder upon. In the sunshine, we walked to the beach with the reef that was closest to the government wharf. This was the farthest we had ventured away from the school. We found a weather worn green picnic table covered in yellow lichen, sat down with our sketchbooks, and designed little fish that we could draw onto the rocks that we were going to collect at the beach. We talked about the importance of preplanning so that we didn't waste any materials. Drawing first would help us anticipate the shape and size of the rocks we needed. This conversation

reminded me of the article on sustainable art practices by Hilary Inwood, and I felt pleased that the literature was in mind, ready to support my teaching when needed. We then went down to explore the tide pools exposed by the low tide. The intent concentration and joy of discovery was wonderful to observe in all of the children and adults. Two students, who took iPads to capture the perfect photo of the two herons that were fishing on opposite sides of the reef, moved slowly and respectfully so they didn't frighten the birds away. Other children crawled carefully on the rocks, noticing several species of sea star, chitons, limpets and crabs. The students found a strange creature and called me over to identify it. It looked like a nudibranch but it didn't make sense to see it on the rocks, so I told them we'd have to email a photo of it to a local celebrity scientist for a confirmation on this. Several of the children made their way to the spray zone with our extra EcoArt Buddy to collect rocks while I spent more time on the reef with a group of students, identifying the amazing invertebrates we were seeing under rocks and in tide pools. Sharing my knowledge about marine invertebrates with the students at the beach was very rewarding, because, I believe, when you learn the name of something, and some special fact about it, it becomes a part of you; it is important and you want it to be there in the future so you can name it and enjoy it again. What we know about and care about, we seek to protect. Our most exciting and surprising discovery was a turquoise-coloured chiton that we found under a rock. The chiton's beauty took our breath away and we noted the large number of six-ray sea stars and kelp crabs that the chiton shared the rock with. We got into a discussion about why we saw so many creatures under rocks, but hardly any on the rocks and seaweed. My group had spent a lot longer at the edge of the sea than we had intended to, but every minute was worth losing time and having to forgo the second art project of the day. It was more important to respond to the interests of the students and to go deep in our learning rather than broad in our art experiences. Being

reflexive and responding to the interests of the students is more important than sticking to a plan. Returning to the picnic table, we worked on drawing little fish, talked to the local reporter about what we were doing and finally scattered our little fish rock drawing above the tide line along the beach. We ran out of time and did not do the face-painting activity based on Nadalian's Red Earth project. The students were happy when I told them we could do the Red Earth project at the next regular Friday EcoArt Club meeting. All too soon, we had to return to school where the parents were waiting. The last day had been the best day of our EcoArt Camp because it consolidated my belief and understanding that this new approach that included time outside in nature, the use of exemplar EcoArtist's work, the inclusion of adult EcoArt Buddies to keep us safe and thinking about the big ideas, and time to think, explore and create was indeed a far superior way of teaching ecology through art than anything I had previously been doing.

### **Blossoming: Five New Understandings**

Every day at EcoArt Camp had been filled with joyful learning and new opportunities to explore the outdoors and art. From the reactions of the students and EcoBuddies over the week, and my exhilaration with the process and the product, it was clear that the EcoArt Camp was a success. Deciding what made it a success would require some careful reflection. Embedded within the images of students sketching in nature and beaming with pride upon completion of paintings, there were crystalized understandings that began to take form as I re-examined our experience. I realized that even though every day followed a similar format, there was a special learning that stood out above the others on each day.

Thinking about our time in the forest, it became clear that being in nature was the most important understanding that emerged from the first day. Cheng's (2012) belief that "experiences

in nature positively influence environmental attitudes and behavior” (p.45) was evident in both the student’s frequent, plaintive requests to return to the forest throughout the week, and also in the great care they took moving through the forest ecosystem while they were there. Being in the forest reminded me that Chiras (2005) stated that to develop an environmental ethic requires a “significant amount of time in nature” (p.29) and making time to go outside would need to become a critical part of the new EcoArt Club experience. It was clear that being able to tie ecological lessons to time spent in nature was a powerful and valuable component and therefore negates any organizational or administrative challenges that might act as barriers to such outings.

The crystallized lesson of the second day was realizing the effectiveness of using EcoArtist exemplars to launch the art-making part of each day. Inwood’s (2003) assertion that “[t]racing the path of eco-artists is a fascinating and inspiring way to begin any art lesson” (p.15) was proved by the deep level of engagement the students had when we were learning about how, and why, Zaria Foreman created her artwork. Having learned the names of hundreds of EcoArtists over the last year, there is no end to the number and diversity of lessons that can be taught using this method, and using their work will become a component part of future EcoArt lessons.

Coming as a surprise to even myself, the third day’s critical understanding was the importance of structure. It was the outcry by the group when I decided to drop sketching from the day that I realized how important the flow of lessons had already become to the students. Never one to value the lesson plan or routine above student’s learning, I was surprised, upon reflection, at how important the organization of the day was to both me and the students. The method of organizing the first part of the day worked well. Ecology learning was followed by ecology experiences and exploration outdoors, which was then followed by sketching, and this helped

students think about the big ideas of the day. Followed by an introduction to the EcoArtist's work and purpose and then time for art exploration, there was a natural progression, balance and flow to each morning. The structure scaffolded the student's learning, allowing them to build understanding with some teacher support and through their own experiences. It was this flexible structure, and its component parts that could be moved around to suit the needs and situation of the day, that made the lessons work. The structure did not become our "master" and did not feel oppressive or limiting because it was carefully planned to provide the optimum opportunity for student learning and engagement. The lesson plan format helped me organize the details, but the structure provided the stability to make this arts-based, place-based learning model successful for myself and the students.

The fourth day crystalized the importance of having another adult to co-facilitate, lending a hand when it was needed but also acting as a role model of environmental and art engagement and enthusiasm. The EcoArt Buddies gave me a sense of security and gave the students an adult who was there to listen to and engage with them in discussions about nature, stewardship and the joy and power of art. Holloway (2012) stated the need to "focus on the youngest generations having the opportunity to articulate *their* vision of what the environment means to them" (p.162), and the EcoArt Buddies were there to listen to, support and encourage the learning and thinking of the children in our group. The value of multigenerational learning experiences is critical in this era of overworked, overscheduled family life, and the EcoArt Buddies interest in what we were doing and who we are became one of the most rewarding aspects of our EcoArt Camp experience, one that I want to continue to replicate in EcoArt Club and in my classroom.

The fifth day was like a full-circle return home. Our experience at the beach rivaled the wonderful time we had had at the beginning of the week in the forest, and at first, I thought that

was the big learning of the day, to re-iterate the power of place-based learning. Then the true, clear lesson of the day emerged, as if from a sea fog. After thinking about how many people stopped by our picnic table to find out what we were doing, and seeing a half-page, front-page photo of our group at work in the local newspaper, I understood that the important lesson of the day was the importance of sharing and connecting with others. It came to me then, that I had been searching for a balance between art and ecology but I had not realized that in fact there was a third component to EcoArt and that was activism. Inwood (2010) encourages “age-appropriate activism” (p.38). A major reason that art is paired with ecology is because art is a unique, universal way to share an idea, and a missing piece in my EcoArt program was getting the message out beyond my students and allowing their art to be on display to inform and activate others in our school and community. Failing to promote their art within our school because of my own languor has done a disservice to the students and the environmental cause. It will be a primary goal to correct this so that the student’s passion and understanding can be shared with, and influence, others.

### **Bearing Fruit: Assessing the Approach**

Although the general concept of learning ecology through art is still intact, there has been a significant shift as the EcoArt Camp has evolved from the EcoArt Club, and it is clear that the benefits of the new, research-informed approach to teaching EcoArt go far beyond my old method. In my EcoArt Club, most learning occurred inside and we had only been outdoors on a few occasions, however, the new approach allows direct, outdoor experiences to build children’s connection to nature during every lesson. The earlier, heavy emphasis on craft has been replaced by the incorporation of EcoArtist exemplars which highlight the principles and purposes of art. In

the early years of my EcoArt Club, pro-environmental behaviours were discussed more than practiced, but in the new approach, earth friendly actions occur *in situ* and in real time as students learn how to be responsible in a natural environment. Most of the positive changes can be easily incorporated into my future EcoArt Club lessons, but the one area associated with the new approach that may be a challenge is to incorporate the increased time needed to accomplish each component. Previously, lessons lasted one-and-a-half hours, but the new three hour format which allows for the critical component of outdoor exploration poses difficulties for scheduling lessons. If the integrity of the new approach is to be maintained, it is likely that a two day format will be needed, with the initial part of the lesson related to ecology taking place afterschool earlier in the week in a ninety minute lesson to be followed by a second ninety minute lesson that focuses on the EcoArtist and art creation component later in the week. This creates an opportunity to use sketching to bridge between the lessons and for the students to think about the ecology concepts over time. It may however pose a problem for acquiring EcoArt Buddies and accommodating the busy afterschool schedules of students who have swimming lessons, hockey, dance and other afterschool commitments. Although there will be a few barriers, this new approach needs to be continued in order to give the EcoArt students the most comprehensive, meaningful experience possible in order to better foster in them an ecological mind-set and positive, helpful, environmental behaviours. This three hour format of EcoArt, however, could easily be incorporated into a classroom learning situation, with lessons occurring in the morning before lunch.

### **Harvesting: Sharing EcoArt education**

I have always had an EcoArt blog for sharing projects and links with students and parents. The blog served as a platform to record what we were working on and for entering site specific links online. My masters' project widened my focus and I wanted to share with educators all of the interesting things I was learning about and doing with my students. I created a new blog with an emphasis on sharing information with other educators while also meeting the needs of parents and students to stay connected. The blog, *One Hand/One World*, will continue to be a place that I warehouse resources and lessons so that they are easily accessible to me and other teachers. Through social media like Facebook, Twitter and Pinterest, I am able to share my blog with the many educators searching for ideas and inspiration online. It is also through email and my blog that I have made personal connections with other EcoArt educators like Heather Anderson and Hilary Inwood. Reaching out and building community will help me to better understand and implement EcoArt. My professional life is greatly enhanced by this type of sharing and connecting, and I will continue to use these online resources to improve my practice and expand the number of people I know with a similar passion.

To share the ideas and accomplishments of the EcoArt students, more of an emphasis needs to be put on displaying their work in a central location that is seen by the whole school. Hosting an art show of their accumulated work each year is a way to give the students an opportunity to share, engage, and inform their friends, family and community of the environmental concepts they have been learning through art. This could be done at school, and also off site, at a coffee shop that is our community hot spot for art. Anderson (2010) recommends creating portfolios for students to reflect on and review their learning, and also to

share with their parents and other students. Another way to curate what they have done is to create digital portfolios that can be shared online.

One other aspect of sharing EcoArt with the students and our school community that became apparent to me is the need to expand the range of students in our EcoArt Club. Chiras (2005) examined the elitism that can sometimes be a part of environmental education and makes a strong case for cultural and socioeconomic sensitivity when teaching environmental concepts. It is a concern I have had even though our EcoArt Club has a good mix of ages, and the gender gap is closing as more boys join each year. Still, there remains the issue that our club is filled with people who have already decided that it is important to protect the environment. Their families make sure they have the time and resources to needed to attend, including rides home and afterschool snacks. Encouraging students who love art but may not be environmentally aware to join could be one of the ways to expand our cause and become more inclusive. EcoArt embodies several of the aboriginal learning principles outlined by Halbert and Kaser (2013). The First People's pedagogy is holistic, reflexive, experiential and supports the connectedness and well-being of self and land while accepting responsibility for one's actions; it dovetails perfectly with EcoArt. Adding these culturally relevant principles will benefit all students and might encourage more aboriginal students to join our club. Inviting EcoArt Buddies from the aboriginal community, and placing more emphasis on studying the art of aboriginal EcoArtists, will feel our EcoArt Club become more accessible and all-encompassing.

Another way of sharing EcoArt is by connecting with classes in other schools, communities and countries, and this is also an EcoArt Club goal for the future. Working on this project has encouraged me to reach out to other educators. I will be creating lessons with a teacher from Bali to explore environmental themes in a place-based way. We will do the same

lessons on the same themes, and then share our work online and in “real life” through an artwork exchange. I am also hoping to create connections to classroom teachers locally with the hope of doing some fieldtrip lessons a bit farther way from school. Teaming up with another educator will allow cost sharing as well as idea sharing. The importance of creating community feels right and essential at this time in my evolution as a teacher. If big problems are to be addressed in the future, we need an educated citizenship, and that requires engaging with others.

### **Ripening: Getting Sweeter**

I had questioned whether incorporating a place-based approach would increase students connection to nature and I found that, yes, it did. Getting students outside and into nature was clearly the greatest benefit of the research-informed way I am now teaching EcoArt. Visiting different locations gave the students the opportunity to make connections between environments, noticing that one of the big ideas from the forest, that everything is connected, is also true at the beach. The concrete immediacy of learning outside also helped students understand why we needed to have certain behaviours in certain environments. For example, they could see the need to stay on the path because when they stepped off the path, they were crushing plants. I also felt confident by the end of the project that learning art techniques from studying the work of EcoArtist exemplars was very motivating, useful and increased the quality of the student’s artwork. I hoped the students had become more eco-literate over the week. I believe the students had more understanding of forest eco-systems, intertidal life and migratory birds, but without being able to research these questions directly through surveys and interviews, my belief that they became more eco-literate is based on supposition. Although I did see the students picking up garbage on our walks and using their art materials more prudently, more time is needed to tell if

the students have developed pro-environmental behaviours. What is evident from my observations, however, is that the students were engaged in all stages of the lesson and motivated to return each day to be a part of the EcoArt Camp experience.

I had found answers to the questions I had about improving EcoArt using the new approach tested during EcoArt Camp, but I had not known that I would find an answer to the angst I have felt over the last twenty years teaching. Reading Quay & Seaman's (2013) article on Dewey helped me identify the conflict I have felt between serving the needs of children while being legislated to work within a system and curriculum that doesn't always reflect or meet their needs. I realized that the problem is not choosing one side or the other. In all areas of EcoArt, schooling in general, and life, balance is the critical factor. Balancing the three parts of EcoArt so that ecology, art and activism work together and so that there is equal time for the ecology and art component of the lesson needs to be at the front of my mind when planning. The lesson plan and method that I developed supports a balanced manner of teaching where the child and the curriculum support one another. In EcoArt, I have created a model that is balanced, that is student-centred and teacher supported. I can relax into sharing my passion for art and ecology with my students knowing that I am helping them "[put] down creative roots that may well grow into creative solutions to our environmental challenges" (Inwood, 2003, p.18).

## References

- Anderson, H. (2010). *Art education and eco awareness: A teacher's guide to art and the natural environment*. Publisher: Author.
- Birt, D., Krug, D.H., and Sheridan, M. (1997). Earthly matters: Learning occurs when you hear the grass singing. *Art Education*, 50(6), 6-13. DOI: 10.2307/3193682
- Blandy, D., Congdon, K.G., Krug, D.H. (1998). Art, ecological restoration, and art education. *Studies in Art*, 39(3), 230-243.
- Cheng, J.C. & Monroe, M. (2012). Connection to nature: Children's affective attitude toward nature. *Environmental Design Research Association*. 44(10), 31-49. DOI: 10.1177/0013916510385082
- Chawla, L. and Flanders Cushing, D. (2007). Education for strategic environmental behavior. *Environmental education Research*, 13(4), 437-452.
- Chiras, D. (2005). *Ecokids: Raising children who care for the earth*. Gabriola, B.C.: New Society Publishers.
- Cole, A. G. (2007) Expanding the field: Revisiting environmental education principles through multidisciplinary frameworks. *The Journal of Environmental education*, 38(2), 35-44.
- Eisner, Elliott (2003). The arts and the creation of mind. *Language Arts*. 80 (5), 340-344.
- Elliott, S. & Davis, J. (2009). Exploring the resistance: An Australian perspective on education for sustainability in early childhood. *International Journal of Early Childhood*. 41(2), 65-77.
- Retrieved from:  
[http://download.springer.com/static/pdf/156/art%253A10.1007%252FBF03168879.pdf?auth66=1396791105\\_27bd421053fe72115d329d3d5b35ac7b&ext=.pdf](http://download.springer.com/static/pdf/156/art%253A10.1007%252FBF03168879.pdf?auth66=1396791105_27bd421053fe72115d329d3d5b35ac7b&ext=.pdf)

- Freire, P. (1970) *Pedagogy of the oppressed*. New York: Continuum International Publishing Group Inc.
- Goleman, D., Bennett, L., and Barlow, Z. (2012) *Eco-Literate: How educators are cultivating emotional, social, and ecological intelligence*. San Francisco: Jossey-Bass.
- Graham, M. (2007). Art, ecology and art education: Locating art education in a critical place-based pedagogy. *Studies in Art Education*, 48(4), 375-391.
- Halbert, J. & Kaser, L. (2013). *Spirals of inquiry: For equity and quality*. Vancouver: The B.C. Principals' & Vice-Principals' Association.
- Holloway, S. (2012). Visual literacies and multiliteracies: An ecology arts-based pedagogical model. *Language and Literacy*. 14(3), 150-168.
- Inwood, H. (2003). Creating a map for eco-art education. *Green Teacher*; 72, 15-18.
- Inwood, H. (2007) Artistic approaches to ecological literacy: Developing eco-art education in elementary classrooms. Retrieved from :  
[http://www.hilaryinwood.ca/Writing/artistic\\_approaches\\_ecological\\_literacy.html](http://www.hilaryinwood.ca/Writing/artistic_approaches_ecological_literacy.html)
- Inwood, H. (2010). Shades of green: Growing environmentalism through art education. *Art Education*, 63(6), p.33-38.
- Inwood, H. (2011). Take it outside! A place-based approach to art education. In Grauer, K., Irwin, R. L. and Emme, M. J. (Eds.), *StARTing With...* (pp. 208-215). Victoria, BC: *Canadian Society for Education through Art*.
- Inwood, H. & Taylor, R. (2012). Creative approaches to environmental learning: Two perspectives on teaching environmental Art Education. *International Electronic Journal of Environmental education*. 2(1), p.65-75.


- Inwood, H. (2013). Cultivating artistic approaches to environmental learning: Exploring eco-art education in elementary classrooms. *International Electronic Journal of Environmental education*. 3(2), p.129-145
- Kirkvold, S. (Eds.). (2012). Canada's raincoast at risk: Art for an oil free coast. Sidney: Raincoast Conservation Foundation.
- Lankford, E.L. (1997). Ecological stewardship in art. *Art Education*, 50(6), 47-53.
- Leichnitz, B. (2013). Sustainability in Art Education Retrieved from:  
<http://ontarioarteducationassociation.org/2013/03/15/sustainability-art-education/>
- Loughheed, T. (2008). Wild child: Guiding the young back to nature. *Environmental Health Perspectives*, 116(10), 437-439.
- Louv, R. (2005). *Last child in the woods: Saving our children from nature-deficit disorder*. Chapel Hill: Algonquin Books of Chapel Hill.
- Maniates, M. (2013). Teaching for turbulence. In L. Starke (Eds.), *2013 State of the world: Is sustainability still possible?* (pp.255-268). Washington, DC: Island Press. Retrieved from:  
[http://download.springer.com/static/pdf/880/bok%253A978-1-61091-458-1.pdf?auth66=1396782397\\_f294ee2e8eac4ef65a30b9e829487e7d&ext=.pdf](http://download.springer.com/static/pdf/880/bok%253A978-1-61091-458-1.pdf?auth66=1396782397_f294ee2e8eac4ef65a30b9e829487e7d&ext=.pdf) DOI:  
10.5822/978-1-61091-458-1
- Michael, P. (2005). Helping children fall in love with the earth: Environmental education and the arts. In M.K. Stone & Z. Barlow (Eds.), *Ecological literacy: Educating our children for a sustainable world*. (pp.111-124) San Fransisco: Sierra Club Books.
- Partnership for 21<sup>st</sup> Century Skills. (2009) *PS21 Framework definitions*. Retrieved from:  
[http://www.p21.org/storage/documents/P21\\_Framework\\_Definitions.pdf](http://www.p21.org/storage/documents/P21_Framework_Definitions.pdf)

- Peacock, A. (2004). *Eco-literacy for primary schools*. Staffordshire, England: Trentham Books.
- Quay, J. and Seaman, J. (2013). *John Dewey and education outdoors: Making sense of the 'Educational Situation' through more than a century of progressive reforms*. Rotterdam: Sense Publishers. Retrieved from:  
<http://uvic.summon.serialssolutions.com/search?s.q=john+dewey+and+education+outdoors>
- Rios, P. & Negrete Yankelevich, A. (2013). The object of art in science: science communication via art installation. *International School for Advanced Studies*. 12(3), 1-18.
- Sanders, P. (1992). Eco-Art: Strength in Diversity. *Art Journal*. 51(2). 77-81.
- Singer, A. (2013) State of the world: A year in review. In L. Starke (Eds.), *2013 State of the world: Is sustainability still possible?* (pp.xv-xxi). Washington, DC: Island Press. Retrieved from: [http://download.springer.com/static/pdf/880/bok%253A978-1-61091-458-1.pdf?auth66=1396782397\\_f294ee2e8eac4ef65a30b9e829487e7d&ext=.pdf](http://download.springer.com/static/pdf/880/bok%253A978-1-61091-458-1.pdf?auth66=1396782397_f294ee2e8eac4ef65a30b9e829487e7d&ext=.pdf) DOI: 10.5822/978-1-61091-458-1
- Smith, G. (2002). Place-based education: Learning to be where we are. *Phi Delta Kappan*, 83(8), 584-594.
- Spearman, M. & Eckhoff, A. (2012). Teaching young learners about sustainability. *Childhood Education*. 88(6). 354-359.
- Sobel, D. (1996). *Beyond Echophobia: Reclaiming the Heart in Nature Education*. Great Barrington, MA: Orion.
- Sobel, D. (2008). *Childhood and nature: Design principles for educators*. Portland, ME: Stenhouse Publishers.

- Song, Y. I. (2008). Exploring connections between environmental education and ecological public art. *Childhood Education*. 85(1), 13-19. DOI: <http://dx.doi.org/10.1080/00094056.2008.10523051>
- Stone, M.K. and Barlow, Z. (2005). *Ecological Literacy: Educating Our Children for a Sustainable World*. San Francisco: Sierra Club Books. Available from: [http://www.amazon.com/gp/product/B009KW9F8C/ref=docs-os-doi\\_0](http://www.amazon.com/gp/product/B009KW9F8C/ref=docs-os-doi_0)
- Stone, M.K. (2009) *Smart By Nature: Schooling for Sustainability*. Healdsburg, CA: Watershed Media.
- Stone, M.K. (2010). A schooling for sustainability framework. *Teacher Education Quarterly*. 37(4), 33-46.
- Van Boeckel, J. (2009). Arts-based environmental education and the ecological crisis: Between opening the senses and coping with psychic numbing. In Drillsma-Migrom, B. & Kirstena, L. (Eds.), *Metamorphoses in children's literature and culture*. (pp.145-164).Turku, Finland: Enostone.
- Wallen, R. (2012). Ecological art: A call for visionary intervention in a time of crisis. *Leonardo*, 45(3), 234-242.
- Weintraub, L. (2012). *To life! Eco Art in pursuit of a sustainable planet*. [Kindle DX version]. Available from Amazon.ca.

## Appendix A

## EcoArt Lesson: Fascinating Forests

<b>Exemplar Artist</b>  <b>Andy Goldsworthy</b> <ul style="list-style-type: none"> <li>Scottish sculptor, land artist, ephemeral</li> <li>ppt to share his work</li> <li>use of spirals, circles, colour gradations</li> </ul>	Ecological	nested systems	interdependence	diversity	cycles	flows	development	dynamic balance	networks	<b>Materials</b> <ul style="list-style-type: none"> <li>plant/tree books</li> <li>plastic seat pads</li> <li>baskets of natural materials (i.e. stones, cones, feathers, shells, acorns, etc.)</li> <li>iPads</li> <li>sketchpads/pencils</li> <li>powerpoint</li> </ul>
<b>line</b> <b>space</b> <b>shape</b> <b>value</b> <b>colour</b> <b>texture</b> <b>form</b> <b>Art Principles</b>									<b>Eco Actions</b> <b>observing nature</b> upcycling <b>natural materials</b> creating to inform restoration appreciation inquiry	
<b>Ecology Notes:</b> <ul style="list-style-type: none"> <li>everything is interconnected-plants, trees, animals, insects, river</li> <li>things have adapted due to the amount of water and sunlight available</li> <li>levels of forest: floor, shrub, understory, canopy, emergent</li> </ul>	sculpture	collage	photography	textiles	printmaking	drawing	mixed media	painting	Art Genres	<b>Assessment</b> <b>Self-assessment</b> 2 stars and a wish  Peer-Assessment  <b>Teacher Assessment</b> <b>1*2*3</b> followed safety plan completed sculpture on task


## Procedure

- In classroom have the Forest Safety Talk
- Visit the outdoor classroom in the forest
- Use senses to attune to the sounds/smells/sights of the forest
- Students find a personal space to sit quietly and sketch/observe
- Group reconvenes at circle seating to share observations and sketches
- Return to school.
- Introduce Goldsworthy via powerpoint
- Go outside and find materials/use basket resources to make art in the style of Goldsworthy
- Photograph student work.
- Share and reflect in class
- Print and display photos.
- Critique own artwork- 2 stars and a wish.

**Possible Extension Lessons:** adaptations/Emily Carr; habitat squares (UNESCO)/Forest Quilts

## Appendix B

## EcoArt Lesson: Weather Walk

<b>Exemplar Artist</b>  <b>Zaria Forman</b> <ul style="list-style-type: none"> <li>Pastel drawings</li> <li>Clouds, oceans, icebergs</li> <li>Concerned about climate change</li> </ul>	Ecological	nested systems	interdependence	diversity	cycles	flows	development	dynamic balance	networks	<b>Materials</b> <ul style="list-style-type: none"> <li>watercycle video</li> <li>plastic seat pads</li> <li>iPads in Ziplocs</li> <li>umbrellas</li> <li>sketchbooks/pencils</li> <li>pastels</li> <li>gallery of Formans work <a href="http://www.zariaforman.com/">http://www.zariaforman.com/</a></li> </ul>
line space shape value colour texture form <b>Art Principles</b>		 <p>Retrieved from: <a href="http://www.pinterest.com/missbeddis/painting-seascapes-and-cloudscapes/">http://www.pinterest.com/missbeddis/painting-seascapes-and-cloudscapes/</a></p>	<b>Eco Actions</b> observing nature upcycling natural materials creating to inform restoration appreciation <b>inquiry</b>							
<b>Ecology Notes:</b> <ul style="list-style-type: none"> <li>knowing how the cycles of nature work helps us protect it</li> <li>water cycle facts</li> <li>weather/climate impacts humans</li> <li>humans impact climate-anticipating unknown consequences</li> </ul>	sculpture		collage	photography	textiles	printmaking	drawing	mixed media	painting	Art Genres


## Procedure

1. In classroom brainstorm impact of weather/climate on people and land 2. Go on weather walk outside and take pictures that show weather or its' effects 3. Find a spot to sketch 4. Inside lesson on Zaria Foreman 5. Demonstrate how to use pastels to draw clouds 6. Students draw weather scenes/clouds 7. Stop in process to highlight some students work 8. Display work and do a whip around Heart Part self-assessment 9. Together, make an idea cloud of ways humans can lessen their effect on climate change 10. Students choose on action to try.

Possible Extension Lessons: types of clouds/Zentangle clouds

## Appendix C

## EcoArt Lesson: Flying High

<b>Exemplar Artist</b>  <b>Anne Hansen</b> <ul style="list-style-type: none"> <li>• painting</li> <li>• coastal birds in habitat</li> <li>• Concerned about bird population decline</li> </ul>	Ecological	nested systems	interdependence	diversity	cycles	flows	development	dynamic balance	networks	<b>Materials</b> <ul style="list-style-type: none"> <li>• Westcoast bird identifier powerpoint</li> <li>• binoculars</li> <li>• 2 iPads</li> <li>• sketchbooks/pencils</li> <li>• paint, paper, white pen</li> <li>• gallery of Hansen's work</li> </ul> <a href="http://oystercatchergirl.blogspot.ca/">http://oystercatchergirl.blogspot.ca/</a>
<b>line</b> <b>space</b> <b>shape</b> <b>value</b> <b>colour</b> <b>texture</b> <b>form</b> <b>Art Principles</b>		 <p>Retrieved from: <a href="http://oystercatchergirl.blogspot.ca/">http://oystercatchergirl.blogspot.ca/</a></p>	<b>Eco Actions</b> <b>observing nature</b> upcycling natural materials <b>creating to inform</b> restoration appreciation inquiry							
<b>Ecology Notes:</b> <ul style="list-style-type: none"> <li>• migration is a cycle tied to the cycle of the seasons= nested</li> <li>• many types of birds</li> <li>• birds have adapted to migrating</li> <li>• hazards birds face while migrating can be minimized by humans</li> </ul>	sculpture		collage	photography	textiles	printmaking	drawing	mixed media	painting	Art Genres


## Procedure

1. Discuss amazing migration facts 2. Show PowerPoint of migrators we might see 3. Discuss walking and beach safety and beach etiquette 4. Walk to the beach, watching for migrators (i.e. robins) 5. At the beach, look for migrators and use books to identify species 6. Find a spot and sketch 7. Return to school 8. visit Anne Hansen's blog and discuss her work noting the diversity of species in many paintings 9. Demonstrate how to whisper draw a simple picture 10. Students draw and then paint 11. Add white lines around objects as Anne Hansen does 12. Write sentence strips of ways we can help protect migrating birds to add to art display.

Possible Extension Lessons: migration mapping/Art Maps, adaptations/Feather Painting

## Appendix D

## EcoArt Lesson: Spring-spirations

<b>Exemplar Artist</b>  Tibetan Prayer Flags Prayer Flag PowerPoint	Ecological nested systems interdependence diversity cycles flows development dynamic balance networks	<b>Materials</b> <ul style="list-style-type: none"> <li>• 1-4 fabric squares per student 12x14"</li> <li>• Twine</li> <li>• iPads/Pic Collage app</li> <li>• sharpies</li> <li>• sketchbooks/pencils</li> <li>• sewing machine</li> </ul>
line space shape value colour texture form <b>Art Principles</b>	 <p><a href="http://www.etsy.com/market/prayer_flags">http://www.etsy.com/market/prayer_flags</a></p>	<b>Eco Actions</b> observing nature upcycling natural materials creating to inform restoration appreciation inquiry
<b>Ecology Notes:</b> <ul style="list-style-type: none"> <li>• seasons cycle</li> <li>• spring brings renewal of life</li> <li>• equinox=relationship of Earth to the sun</li> </ul>	sculpture collage photography textiles printmaking drawing mixed media painting <b>Art Genres</b>	<b>Assessment</b> Peer Assessment 2 Stars and a Wish Teacher Assessment 1*2*3 1. followed safety plan 2. completed sculpture 3. on task



## Procedure

1. Discuss that it is the first day of spring 2. Brainstorm some changes that happen in nature in spring 3. Go on a "Spring Things" hunt outside taking iPads and working in pairs 4. sketch some signs of spring outside 5. Return to the classroom and watch the Tibetan Prayer Flag PowerPoint explaining that we are using this idea to make hope/wish flags 6. Add to list of "Spring Things" on the SmartBoard 7. Have each child put their name beside one item on the brainstormed list and draw that item onto a piece of paper 8. transfer the picture to fabric by colouring back of paper with lead and then going over the lines on the drawing 9. Draw over the transfer lines on the fabric using a black Sharpie 10. Sew a channel on the flag 11. String and hang 12. Repeat if there is time.

Possible Extension Lessons: 4 seasons/Prayer Flags or Quilt

## Appendix E

## EcoArt Lesson: The Importance of Little Fish

<b>Exemplar Artist</b>  <b>Ahmed Nadalian</b> <ul style="list-style-type: none"> <li>Iranian artist/sculptor</li> <li>Healthy rivers and streams; healthy earth healthy people</li> </ul>	Ecological	nested systems	interdependence	diversity	cycles	flows	development	dynamic balance	networks	<b>Materials</b> <ul style="list-style-type: none"> <li>sharpies</li> <li>food pyramid video <a href="https://www.youtube.com/watch?v=5WvtRf4TAO4">https://www.youtube.com/watch?v=5WvtRf4TAO4</a></li> <li>2 iPads</li> <li>sketchbooks/pencils</li> <li>facepaints</li> <li>wooden building blocks</li> </ul>
<b>line</b> <b>space</b> <b>shape</b> <b>value</b> <b>colour</b> <b>texture</b> <b>form</b> <b>Art Principles</b>		 <a href="http://wwwwebart.com/riverart/fish/index.htm">http://wwwwebart.com/riverart/fish/index.htm</a>		<b>Eco Actions</b> observing nature upcycling <b>natural materials</b> <b>creating to inform</b> restoration appreciation inquiry						
<b>Ecology Notes:</b> <ul style="list-style-type: none"> <li>can't take the bottom out of the food/energy pyramid</li> <li>importance of living sustainably</li> <li>the health of all species is interdependent- we all need clean water, food, space</li> </ul>	sculpture			collage	photography	textiles	printmaking	drawing	mixed media	painting

## Procedure

1. watch the video and model with the wooden blocks what happens if we take part of the pyramid out 2. Look at Nadalian's art 3. Discuss walking and beach safety and beach etiquette 4. Walk to the beach and collect rocks for building sculptures and drawing little fish on 5. Draw 2 little fish and take photos of them (1 is to keep) 6. spread out and scatter fish above the high tide line on beach 7. Return to school 8. Talk about the hope we've developed knowing that there are things we can do live thoughtfully on the planet. In Nadalian's culture, snakes are a symbol of eternity and treasure 9. Face paint students while others draw in their sketchbooks. 10. Photograph students outside in nature 11. Print and display photos 12. Send students home with sketchbooks and an invitation to a gallery showing with their parents Friday, March 28 at 4:30pm after EcoArt Club.

**Possible Extension Lessons:** fish migration/Nadalian's Sand Printing; interdependence/Green People Leaf Projections