

Deep Green Bush-School

a culture of sustainability

(learning framework)

written for the Deep Green Bush-School by Joey Moncarz 2016

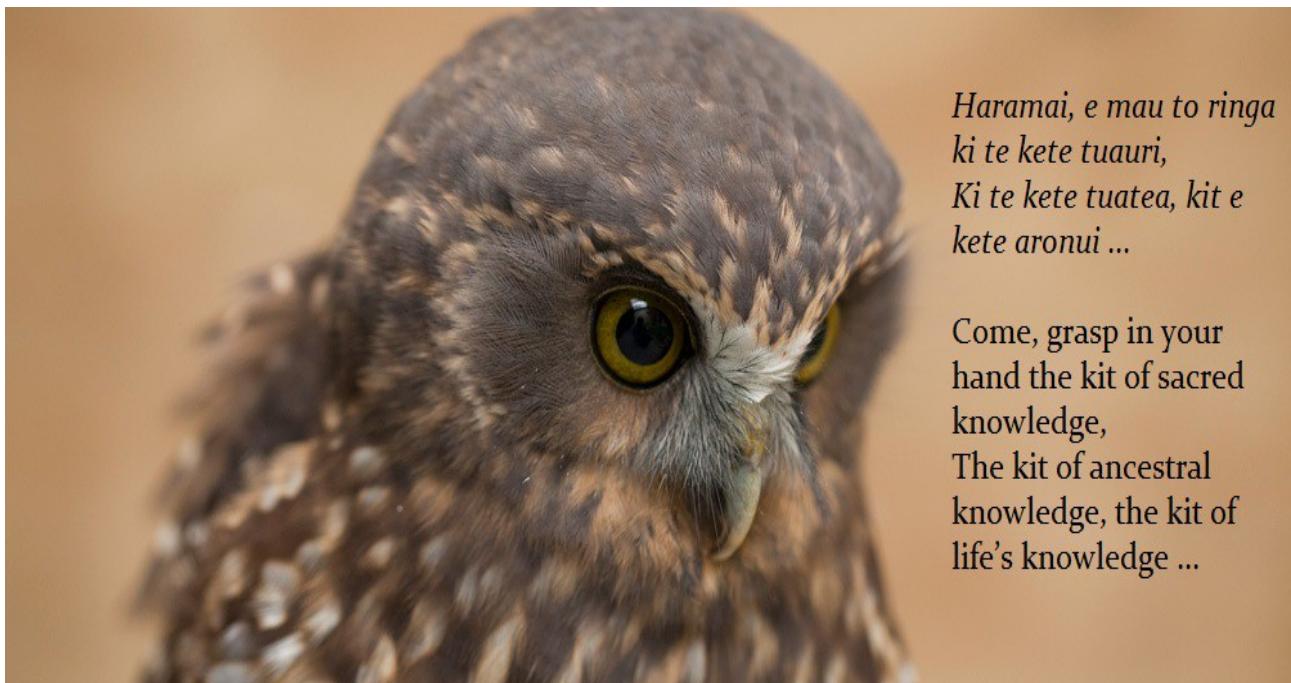
Come join us on a journey
to another way of thinking
another way of knowing
another way of raising our kids
for a healthy world
and meaningful lives.

Breathe deep.
Be brave.
Come join us on a journey...

As we undertake the task of creating a healthier world, we begin with a traditional karakia.

**Tukua te wairua kia rere ki ngā taumata
Hai ārahi i ā tātou mahi
Me tā tātou whai i ngā tikanga a rātou mā
Kia mau kia ita
Kia kore ai e ngaro
Kia pupuri
Kia whakamaua
Kia tina! TINA! Hui e! TĀIKI E!**

*Allow one's spirit to exercise its potential
To guide us in our work as well as in our pursuit of our ancestral traditions
Take hold and preserve it
Ensure it is never lost
Hold fast. Secure it. Draw together! Affirm!*



Let's sit down here, all of us, on the open prairie, where we can't see a highway or a fence. Let's have no blankets to sit on, but feel the ground with our bodies, the earth, the yielding shrubs. Let's have the grass for a mattress, experiencing its sharpness and its softness. Let us become like stones, plants, and trees. Let us be animals, think and feel like animals.

Listen to the air. You can hear it, feel it, smell it, taste it. Woniya waken – the holy air – which renews all by its breath. Woniya, woniya waken – spirit, life, breath, renewal – it means all that. Woniya – we sit together, don't touch, but something is there; we feel it between us, as a presence. A good way to start thinking about nature, talk about it. Rather talk to it, talk to the rivers, to the lakes, to the winds as to our relatives.

– *John (Fire) Lame Deer, Lakota medicine man*

"If we want children to flourish, to become truly empowered, then let us allow them to love the earth before we ask them to save it. Perhaps this is what Thoreau had in mind when he said, 'The more slowly trees grow at first, the sounder they are at the core, and I think the same is true of human beings.'"

-David Sobel, *Beyond Ecophobia*

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The Power of Nature

When we give our kids time in nature
They will form a deep connection with the natural world.
They will re-connect with the knowledge and wisdom
of two million years of human existence
With the knowledge and wisdom of humans who lived
in harmony with the natural world.
And they will then look out at this modern world
and it may not make much sense.
They might not want to grow up to be
just another part of the machine.
They might not want the jobs offered by a destructive system.
This is the great transformational potential of nature.

For the more time our kids spend in nature
The more they will see that nature is food
nature is medicine
nature is kin
nature is friends
and nature is a better teacher than any school or book
They will begin to re-learn the many human abilities
we lost long ago
when we started living behind walls
and living behind screens.
And it is these children who are most likely the ones
to help transform the world
from the way it is now
to a healthy world.

This is the power of nature.

PREFACE

The aim of the Deep Green Bush-School is to create a purposeful community of parents, children and supporters who aspire to create a healthy world. Our aim is a way of living in which the natural world is treated as sacred, a way of living which leaves the world in better shape than the way we found it. It means that all of our actions take into account the impacts on future generations. The healthy world we raise our children for is one in which justice prevails, where the traditions are those that promote justice, and a world in which injustice is not tolerated. To achieve this, we look to traditions, knowledge and wisdom that sustained communities for thousands of years, while being brave enough to identify and avoid those traditions which have *not* contributed to social and ecological health.

“[E]very society needs educated people, but the primary responsibility
of educated people must be to bring wisdom back into the
community and make it available to others.”

– Vine Deloria

INTRODUCTION

The Deep Green Bush-School (DGBS) offers a *culture of sustainability*, inspired by thousands of years of indigenous learning traditions, including a thousand years of the Maori tradition of child-rearing, and the learning practices of hunter-gatherers which anthropologists have shown humans evolved with over two million years of recent hominid evolution. It is clear that hunter-gatherer learning practices support sustainable living, since hunter-gatherer peoples have lived for one to two million years with **strong social bonds** and **without destroying the land** upon which they depended. Humans would not be here today if it were not for the learning practices that our hunter-gatherer ancestors practised for ninety-nine percent of our human presence on Earth. Learning the way humans evolved to learn is **based on a child’s individual and developmental needs** and on the **health and well-being of the entire community** and natural world.

The essence of the Deep Green Bush-School can best be described with these key elements, which will be explored in more detail below:

1. Mixed-ages, from 5 to 18
2. Free play
3. Immersion in nature
4. Immersion in community
5. Democratic decision-making
6. A holistic approach to modern technology
7. Nature-based and indigenous wisdom, knowledge and skills
8. Exploring alternatives to consumerism
9. Affordable

VISION

The vision of the Deep Green Bush-School is a world in which **children grow up healthy and happy**, closely connected with nature and with their community, in which they are confident in how to live truly sustainable and democratic lives, with appreciation for the knowledge, skills and wisdom that humans have depended on for tens of thousands of years. In other words, the Deep Green Bush-School exists for the health, happiness and well-being of current and future generations, as well as for all life forms on the planet.

What we aim for at the Deep Green Bush-School is to empower children and teenagers, empower their parents and empower their communities to take control of their common future and challenge the status quo to ensure a thriving, liveable world for future generations. In the process, we will de-colonise our minds and lives of unhealthy practices, with the ultimate aim being a truly sustainable world.

**Humankind has not woven the web of life.
We are but one thread within it.
Whatever we do to the web, we do to ourselves.
All things are bound together.
All things connect.
- Chief Seattle**

**"The function of education is to teach one to think intensively
and to think critically. Intelligence plus character - that is
the goal of true education."
- Martin Luther King, Jr.**

ALIGNMENT WITH THE NZ CURRICULUM

The Deep Green Bush-School's Culture of Sustainability reflects and supports the Vision, Principles, Values and Key Competencies of the NZ Curriculum. The aim of this Culture of Sustainability is to raise youth who are confident, connected, actively involved and lifelong learners (Ministry of Education, p. 8). Likewise, this document is consistent with the principles of high expectations, the Treaty of Waitangi, cultural diversity, inclusion, learning to learn, community engagement, coherence and future focus (p.9). The Deep Green Bush-School affirms the values of excellence, innovation, inquiry, and curiosity, diversity, equity, community and participation, ecological sustainability and integrity. Our aims are also in line with the NZ Curriculum's Key Competencies, in that our school is designed to nurture youth who can think, can use language symbols and texts, are able to manage themselves, can relate well to others, and participate and contribute. Above all, as this document will make clear, the academic subject areas highlighted in the NZ Curriculum are also included in the Culture of Sustainability.

Where we differ with the NZ Curriculum is in the realms of context and methods. In terms of context, the Deep Green Bush-School's Culture of Sustainability places **emphasis on wisdom rather than knowledge**. Furthermore, we offer knowledge, skills and wisdom which are not to be found in the NZ Curriculum. Examples are indigenous wisdom, nature-based practical skills, and exploring alternatives to consumerism (which includes modern technology). Thus, the elements of the NZ Curriculum are just a small aspect of the broader learning that will take place; such academic subjects are enmeshed within the context of healthy living and thinking. More important than how skilled a student becomes in a traditional academic subject is their ability to honour the Earth, live in a way which respects all living creatures, and to understand the forces which have created such social and ecological crises in the first place.

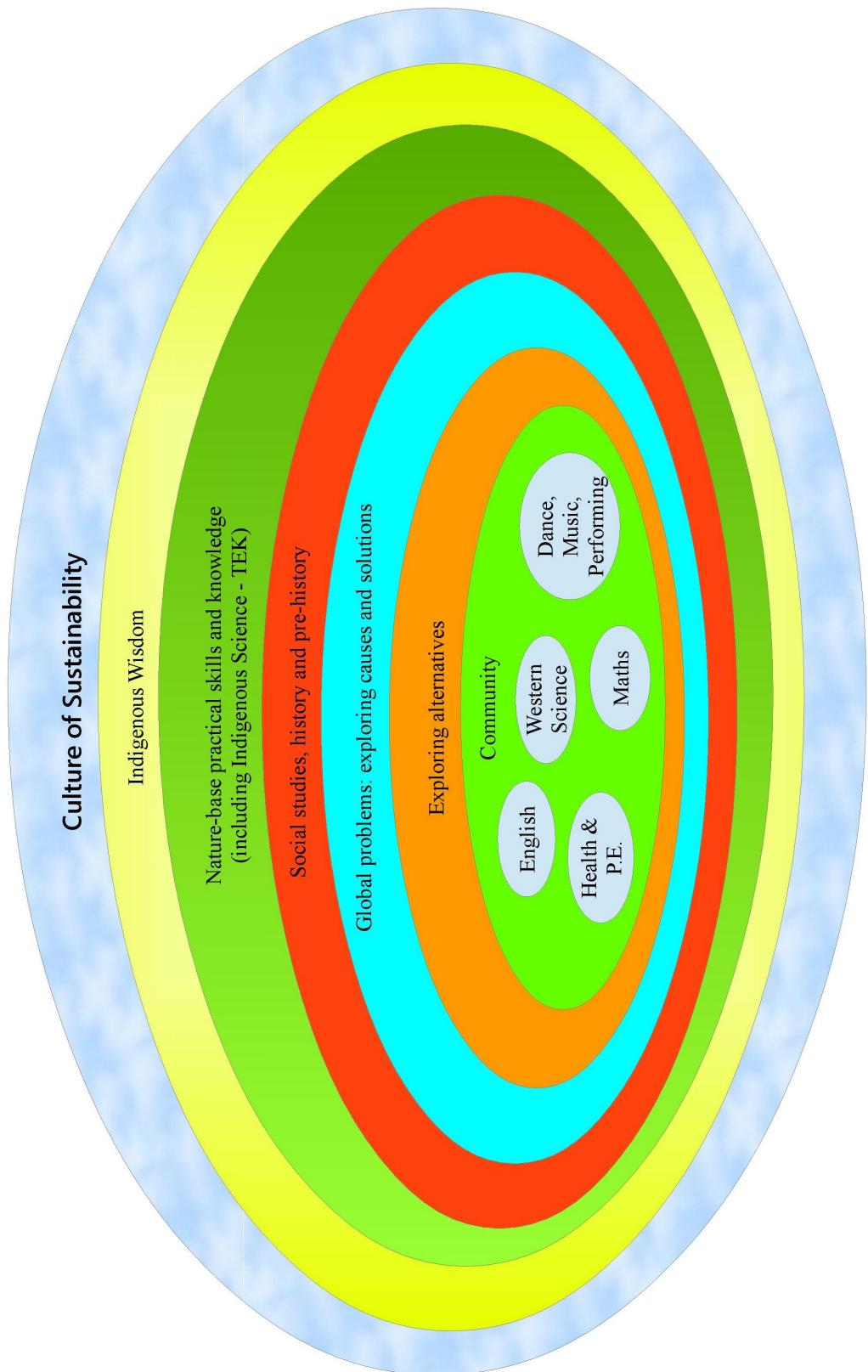
Similarly, our methods are very different from those in nearly all mainstream schools, yet it must be understood that there is more than one way to impart knowledge and wisdom to youth – that much has been demonstrated by countless cultures around the world. Our method is through free play in nature, democratic decision-making, and gentle mentoring. As this document will highlight, this approach to raising children has been tested and proven over the last two million years of human existence on Earth, and has been the dominant method of raising children for 99% of human history.

The important points to remember are that while we have different methods and place learning in the context of *wisdom rather than knowledge*, the Culture of Sustainability affirms the vision, principles, values and key competencies of the NZ Curriculum.

(See the diagram on the following page to see how traditional school subjects fit within our Culture of Sustainability.)

**"We have to produce an ecologically literate citizenry,
capable of discussing ecological issues seriously."
- David Orr (Jensen 1995)**

Traditional Academic Subjects Within the Context of the Deep Green Bush-School's Culture of Sustainability



NCEA QUALIFICATIONS

In accord with our democratic and mentoring approach, should a student at the Deep Green Bush-School desire to gain NCEA qualifications, we will support them in this. We would advise them to enrol in Te Aho o Te Kura Pounamu - The Correspondence School. While the DGBS itself is in a bush setting, we will always have indoor spaces in which students may sit quietly and do such work. Of course, students may also decide to work outside. The key idea is that we will support our students if this is their chosen course of action. Students will also be fully aware that they can enter university without NCEA credits when they are 20 years old and be left to judge for themselves which path to take (for more on this see “Career Pathways”, below).

ASSESSMENTS and MONITORING

The DGBS will not administer any tests, unless requested by a student. We will regularly record the development of each student, covering all aspects of growth: intellectual, emotional, social, physical and spiritual. Our observations will be discussed with both the student and the student's parents. We will respect each student's unique ontogeny and thus we will avoid expectations that are based on abstract prescriptions. Since every child is unique, they each will develop and mature at their own rate. It is our role to provide them with the most nurturing environment in which they can develop according to their own true nature. It is also our role to provide them with the chance to connect with the natural world in an unstressed and unhurried environment, an absolutely crucial factor in their development.

It should be noted that children among home-schooling and un-schooling families, as well as students in schools based on free play, such as the Sudbury Valley Schools, are able to learn everything they need to know within an environment in which there are no classes and no tests. We at the DGBS are mindful of the NZ Curriculum and its rough guide for schools, but we also know that children, in the right environment, will learn skills in English, maths, history, social studies and science through their intrinsic motivation and adults who respond to their requests. Teachers at DGBS will monitor student development in these subject areas, as well as monitoring with a more holistic view, and maintain close contact with the student and parents.

“The old people came literally to love the soil and they sat or reclined on the ground with a feeling of being close to a mothering power. It was good for the skin to touch the earth and the old people liked to remove their moccasins and walk with bare feet on the sacred earth. . . . The soil was soothing, strengthening, cleansing, and healing. . . . Wherever the Lakota went, he was with Mother Earth. No matter where he roamed by day or slept by night he was safe with her.”

- Luther Standing Bear

KEY CONCEPTS

sustainability

It is important to define what ***sustainability*** means, as the word will be used frequently in this document, and as commercial and government interests have appropriated the word, distorted its meaning, and use it merely to further monetary gains, rather than actual sustainability. **Sustainability means that the Earth and all aspects of our natural environment are left in better condition than we found it when we were born; it means a world of justice;** it means the absence of exploitation; it means the absence of war; it means the absence of poverty; it means a world where children are allowed to develop the way we evolved to develop; it means adults being able to work in meaningful ways; and it means old people being properly taken care of within their communities. It is a world in which the health, happiness and well-being of our children, future generations and the planet is our highest priority.

Wisdom

Wisdom is the foundation of the Deep Green Bush-School. It is a seldom-used word in education and generally ignored in Western industrial culture. Yet without it, a sustainable culture is not possible. Simply put, wisdom means knowing how to live in a harmonious relationship with other people and the entire natural world. As this document will make clear, to live in harmony with all of existence means to relate to the world in a deep, spiritual – and unquantifiable way. The journalist Chris Hedges (2015) elaborates:

Wisdom connects us with forces that cannot be measured empirically and that are outside the confines of the rational world. To be wise is to pay homage to beauty, truth, grief, the brevity of life, our own mortality, love and the absurdity and mystery of existence. It is, in short, to honor the sacred.

The most important point, however, is that **wisdom is only attainable through connecting with the natural world.** It is both a reflection of, and an inseparable component of, a healthy relationship with the natural world. We can only attain wisdom by immersing ourselves in the natural world, and wisdom will then guide us so that we can live in harmony with the world.

Wisdom is distinct from knowledge. Knowledge may simply be an awareness of information or facts. But what good are these facts or information? One may possess knowledge and have no wisdom, as our modern world makes perfectly clear. Thus, wisdom is contextual. Wisdom is rooted in place. In other words, wisdom depends on an attachment and relationship with the land, so that the land speaks and guides a person to know how to live in harmony and within the limits of the land. This, too, is missing from our modern world.

Furthermore, every sustainable society that has ever existed depended upon wisdom and the passing of wisdom from each generation to the next. Since our current world largely

ignores wisdom – and our children will be paying the price for this – we at the Deep Green Bush-School will once again bring wisdom back into the lives of our children. This will enable them to make the healthiest and soundest decisions as adults – decisions which will consider the impacts on all others in our world.

culture

Since the word culture is used in many different contexts, it is necessary to clarify what we mean. C.A. Bowers quotes two separate definitions which are relevant. First is the anthropologist Clifford Geertz's definition: "The culture concept...denotes an historically transmitted pattern of meanings embodied in symbol systems of inherited conceptions expressed in symbolic forms by which men [and women] communicate, perpetuate, and develop their knowledge about and attitudes toward life". Ward Goodenough gives a somewhat more down-to-earth definition when he says that culture "consists of standards for deciding what is, standards for deciding what can be, deciding how one feels about it, standards for deciding what to do about it, and standards for deciding how to go about doing it." (both quoted in Bowers 2000)

Thus, when we speak of a *culture of sustainability*, we are establishing standards for living and child-rearing which are based on healthy human-human interactions and healthy human-nature interactions that will ensure healthy human communities and healthy ecological communities far into the future.

"Education ought to allow for bonding to the natural world. E.O. Wilson believes we have an affinity to life, which he calls biophilia. In other words, nature tugs at us...We not only live on this planet, but this planet lives in us, in our minds, our imaginations, our dreams, and in our genes."

- David Orr (Jensen 1995)

kaitiaki

Related to the notion of sustainability is the Maori concept of *kaitiaki*:

A kaitiaki is a person, group or being that acts as a carer, guardian, protector and conservator. The gods of the natural world were considered to be the original kaitiaki – for instance, Tane, god of the forest, was the kaitiaki of the forest. All other kaitiaki emulate those original ones. (www.teara.govt.nz)

With that in mind, we consider ourselves kaitiaki with our tamariki, we consider ourselves kaitiaki with each other, we consider ourselves kaitiaki with the natural world, and we consider ourselves kaitiaki with future generations. This concept of kaitiakitanga furthermore does not imply the common anthropocentric superiority over our youth or over the natural world, nor does it imply the patriarchal domination over others, but merely

highlights **our responsibility**, based on reciprocity, to ensure the health and well-being of our youth, of each other, of the natural world, and of future generations. This is the essence of sustainability. Without such a mindset, a healthy world is not possible.

We do not claim any specific Maori affiliation, yet we are mindful of traditional Maori protocols, respectful of Maori history and wisdom, and recognise that Maori lived in Aotearoa for over 1000 years without destroying it. Our understanding of kaitiakitanga has been discussed and confirmed with a local kaumata. We are here to support and re-affirm the knowledge and wisdom of our local kaitiaki.

Mannaki whenua, manaaki tangata, haere whakamua
Care for the land, care for the people, go forward.

deep green

The term *deep green* stems from the *deep ecology* movement, dating back to 1973, when coined by the Norwegian philosopher and mountaineer Arne Naess. Naess used the term to distinguish two types of environmentalists: deep and shallow. The shallow environmentalists viewed the natural world in terms of their utility for humans – i.e., they viewed nature through a utilitarian, mechanistic, anthropocentric lens. Nature was viewed as a “resource”, and these environmentalists refused to question their taken-for-granted assumptions or the root causes of the environmental crisis, and thus would never consider altering their industrial way of life. (Drengson 2016) For example, recycling is a “green” thing to do, though it leaves the consumer culture intact. Electric cars may be portrayed as “green”, though they have no impact on the car culture, and all the death and devastation that comes along with it - such as one million global deaths annually. (WHO 2015) Similarly, corporations portray themselves as “green”, such as Monsanto or GE, though they manufacture cancer-causing chemicals and weapons of mass destruction. To be “green” has become meaningless.

On the other hand, deep green, like deep ecology, means something quite different. To begin with, it fully recognises that “the most fundamental premise of ecology is that all things natural are interrelated...nothing occurs that does not affect everything else.” (Livingston 1994) To fully accept this – and not merely pay lip service – is to experience and live in the world in a completely different way. One of the most fundamental principles supporting the DGBS Culture of Sustainability is precisely that everything is connected and everything affects everything else.

For deep ecologists, the natural world has value in and of itself. Deep ecology represents the idea “that all life has the right to exist, that no one species is more important than another.” (Center for Deep Ecology 2016) But more important is the implication for the way we think of ourselves and our lives:

We embrace Deep Ecology because it gets back to our roots. Not our roots as

humans living in a modern society, but as members of something much larger, with the knowledge that our every action affects those around us. We embrace Deep Ecology as a return to nature-based living, rather than the greed-based societies we have come to know. (Center 2016)

According to Stephan Harding, the key is for us to develop “ecological wisdom” and that deep ecology “seeks to develop this by focusing on deep experience, deep questioning and deep commitment. These constitute an interconnected system. Each gives rise to and supports the other...” (Harding 2016) Deep experiences are those that connect us to the natural world in such a way that we feel ourselves connected with all of life and all of existence and we begin to ask questions about life. Thus, at Deep Green Bush-School we aim to nurture our children’s connection with the natural world so that they can have deep experiences and so that they will begin to see themselves as interconnected with all other plants and animals, with the mountains, rivers – with everything. This interconnectedness spans across the Earth, through time, through ideas, through history and pre-history, through the needs of all life, and into the future. This is to truly be alive.

Above all, once we have deep experiences and deep questioning, we must turn that into deep commitment – that is, action. As Naess and Sessions articulated, this means we “have an obligation directly or indirectly to try to implement the necessary changes.” (Naess and Sessions 1984) The changes they refer to are those to our thinking and our world so that we can reverse the ongoing destruction and begin to heal the Earth. This is the essence of *deep green*.

“The view of nature which predominated in the West down to the eve of the Scientific Revolution was that of an enchanted world. Rocks, trees, rivers, and clouds were all seen as wondrous, alive, and human beings felt at home in this environment. The cosmos, in short, was a place of belonging.”

- Morris Berman (Berman 1981)

“We exist in profound interrelatedness – in ways we barely apprehend in the West. We now know we are linked at the molecular level to everything in the universe, but there is also an amazingly complex interaction of self-organizing systems and emergent properties, all existing within the cosmological embrace of gravitation. We are affected, often at very subtle levels, by the fact that we are *embodied* and *embedded*. That's an emphasis we need to keep in mind...”

- Charlene Spretnak (emphasis in original, Jensen 1995)

re-wilding

One of the aims of the Deep Green Bush-School is to *rewild* our children. Those in the “civilised” world often use the word *wild* in the pejorative sense, so let us redefine it:

Wildness is the earthy, untamed, undomesticated state of things -- open-ended, improvisational, moving according to its own boisterous logic. That which is wild is not really out of control; it is simply out of *our* control. Wildness is not a state of disorder, but a condition whose order is not imposed from outside. Wild land follows its *own* order, its own *Tao*, its own inherent way in the world. (Abram 2016)

The use of the term rewilding is rather recent and is being used in a number of ways in society. While its mainstream use denotes simply allowing kids more time in nature, this has not been the primary use of the term. The main use of rewilding has been in the conservationist sense, denoting “the scientific argument for restoring big wilderness based on the regulatory roles of large predators” (Soule and Noss 1998). One example of this is the re-introduction of wolves into areas of North America and Europe where they have historically roamed. This is a necessary and important concept but unfortunately, this conservationist approach will ultimately fail without the third definition of rewilding, which is the way we at the Deep Green Bush-School will be using it.

The third definition of rewilding means recognising the multitude of ways in which agriculture and the domestication of plants and animals has also led to the domestication of humans. It means recognising that humans are genetically hunter-gatherers, not city-dwellers, and that we lived as hunter-gatherers for two million years, as opposed to only a few thousand years in cities. This is an often shocking idea, but confirmed by anthropology, ignored history and the oral traditions of countless cultures. According to the Cambridge Encyclopedia of Hunters and Gatherers, "Hunting and gathering was humanity's first and most successful adaptation, occupying at least 90 percent of human history. Until 12,000 years ago, all humans lived this way." (Lee and Daly 2004) While Lee and Daly say "at least 90 percent", some researchers say 99 percent. (Narvaez 2012)

Generally, when one mentions hunter-gatherers in modern society, a few assumptions and images quickly arise. One is that we are talking about “cavemen”. Cartoonish images implanted in our minds by the mass media generally pop up. Our general reaction is to think that hunter-gatherers lived lives that were “nasty, brutish, and short” - a view popularised by Thomas Hobbes nearly 400 years ago, repeated by the mass media and believed by the general public ever since. However, since this document and the DGBS will be referring a great deal to the cultures of hunter-gatherers, it is crucial to correct these mistaken assumptions.

To begin with, according to anthropologists Devore and Lee (1999), “To date, the hunting way of life has been the most successful and persistent adaptation man has ever achieved.” Darcia Narvaez (2012) writes that “the human genus spent 99% of its existence in a lifestyle that is egalitarian, emphasizing individual autonomy, immersed in nearly constant, pleasurable social activity—whether gathering, hunting, social leisure or sleeping”. And contrary to the common Hobbesian assumptions, humans lived quite *peaceful* lives as

hunter-gatherers for two million years, and violence and war are not part of human nature: “Despite the growing mythology, the archaeological record reveals very little evidence of past violence... (until the growth of big settlements, starting around 10,000 years ago).” (Corry 2016) Stephen Corry quotes recent anthropological research that concludes that until the rise of agriculture “warfare was the rare exception.” What many people will find most surprising is that hunter-gatherers “worked” (that is, foraged, hunted, worked on tools and shelter, etc.) for roughly 15-25 hours per week. (Lawlor 1991, Sahlins 1974, 2009) The rest of the time was spent in leisure, resting, visiting other camps, laughing, singing, telling stories and playing. Food was considered abundant since they knew where to look, and when. Above all, hunter-gatherers *did not* live short lives; on the contrary, they lived quite long lives – reaching modal ages of 68-78 years old. (Gurvin and Kaplan 2007) Thus, we ask the reader to check their Hobbesian assumptions about hunter-gatherers while reading this text.

Furthermore, as Dr. Peter Gray writes in *Free to Learn* (2013), “[there is] compelling evidence that children’s natural, hunter-gatherer ways of learning *are* sufficient for education in our culture, if we provide conditions that are equivalent, for our culture, to those that hunter-gatherer adults provide for their children.” (emphasis in original)

We can see how important it is to consider our evolutionary past when looking at the recent switch to living in urban settings. In fact, this sudden change has caused enormous damage to humanity. Lewis Mumford commented decades ago that “if man had originally inhabited a world as blankly uniform as a ‘high rise’ housing development, as featureless as a parking lot, as destitute of life as an automated factory, it is doubtful that he would have had a sufficiently varied experience to retain images, mold language or acquire ideas.” (Mumford 1966) Desmond Morris writes that “the city is not a concrete jungle, it is a human zoo... The modern human animal is no longer living in conditions natural for his species.” (Morris 1996)

Conversely, Dion Workman describes our original home this way:

Our optimal environment, the environment in which we have evolved as a species is a treed and leafed environment. Its scent is of humus and fungi, aromatic herbs and flowers. It is Green. Deep, deep Green. In this environment we lived sustainably – not merely sustainably, we actually flourished, proliferating rich diverse cultures for hundreds of thousands of years. It is an environment from which gifts for our sustenance flowed. (Workman 2014)

Again, we are not saying that everyone should abandon cities and live out in the forests. **Our purpose in exploring our past is to help us envision and reach a healthy future.** In this case, by looking at the urbanisation of humanity, we see that this “civilising” process (domestication and urbanisation) has caused generation after generation to live alienated, crippled lives, unable to live the way we have the capacity to, and often unaware of the cause of the deep-seated frustration they cannot shake. The civilising process led directly to inequality, slavery, organised warfare, genocide, poverty, tyranny, infectious diseases, mental illness and endemic child abuse, among other features of civilisations – none of which existed before – that is, none of which existed during the previous two million years.

This notion of rewilding is all-encompassing and has enormous positive benefits – for our children, for the future of humans on Earth, and for the ability of the natural world to continue to provide for human health, happiness and well-being. It is our aim at the Deep Green Bush-School to learn from our hunter-gatherer past – not to copy it – and to evaluate which habits, ways of living, and mindsets contributed to the health, happiness and well-being of humans, and how to incorporate them into our modern condition for the well-being of everyone.

And finally, from Layla AbdelRahim:

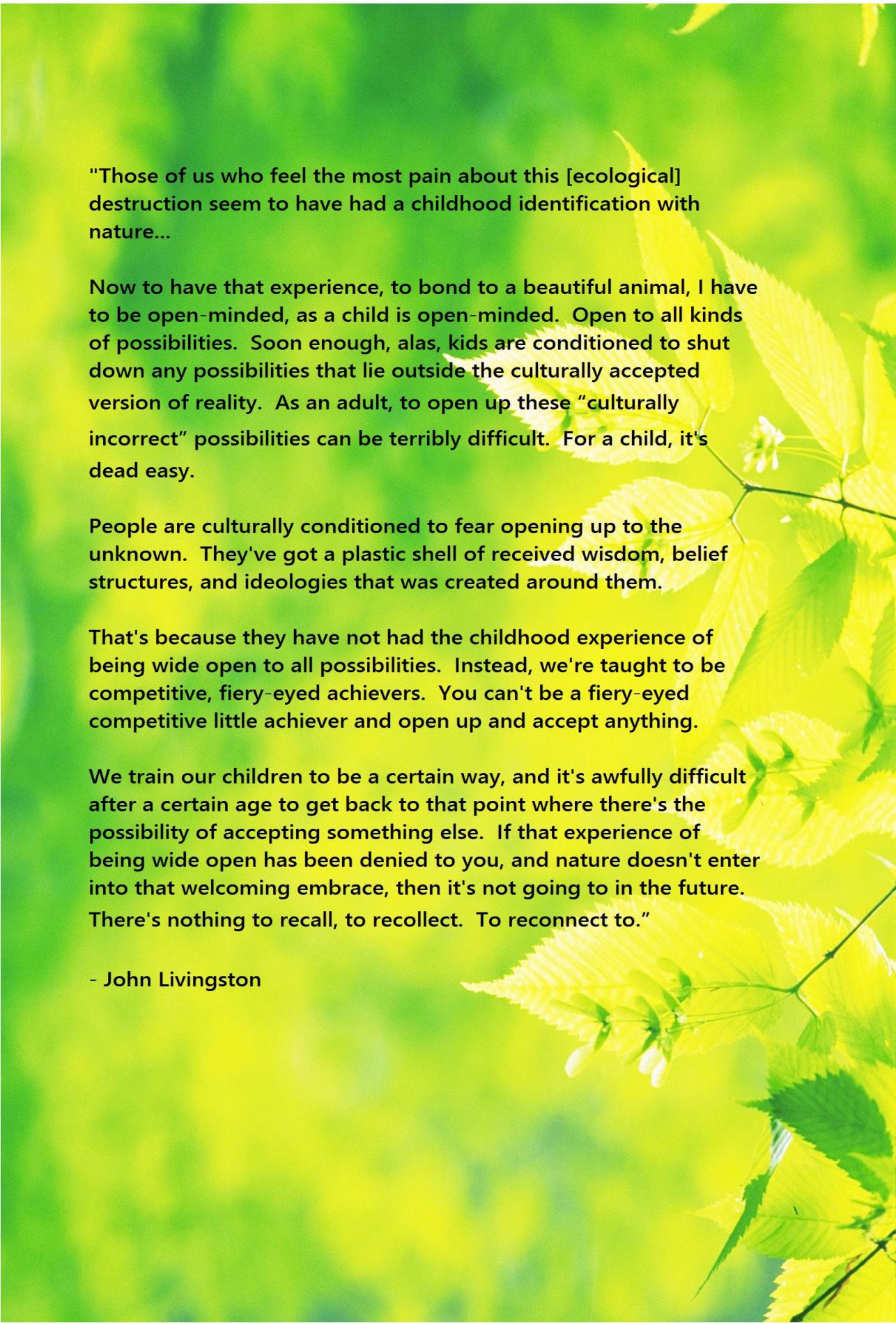
...rooted in symbiotic relationships, wild cultures conceive of beings as free to be who they are, existing for their own purpose and recognizing that co-operation will enhance their lives and make everyone thrive. (AbdelRahim 2013)

To repeat, while we at the Deep Green Bush-School rely heavily on indigenous skills, knowledge and wisdom, **we are *not* implying that we expect people to live as hunter-gatherers.** In our world today that is simple not possible. Rather, we are saying that we have much to learn from our two-million year history that can help us in healing our present world and bringing joy and health back into our lives and the lives of our children. (Ratey and Manning 2014) Since we lived for 90-99 percent of our time on Earth in a certain way – and it was so successful – then we should try our best to incorporate elements from that successful way to help solve today's problems.



"What the next generation is going to have to face in dealing with all this makes a person think. And my thinking is largely an effort to provide a way in which the next generation can deal with the tragedy, with the ruins of their world. How do you prepare people for this? How do we stop it from happening? And what are the possibilities of taking on a constructive program that would enable the human community to envisage an attainable new mode of fulfillment? How can we respond to the situation creatively?"

- Thomas Berry (in Jensen 1995)



"Those of us who feel the most pain about this [ecological] destruction seem to have had a childhood identification with nature..."

Now to have that experience, to bond to a beautiful animal, I have to be open-minded, as a child is open-minded. Open to all kinds of possibilities. Soon enough, alas, kids are conditioned to shut down any possibilities that lie outside the culturally accepted version of reality. As an adult, to open up these "culturally incorrect" possibilities can be terribly difficult. For a child, it's dead easy.

People are culturally conditioned to fear opening up to the unknown. They've got a plastic shell of received wisdom, belief structures, and ideologies that was created around them.

That's because they have not had the childhood experience of being wide open to all possibilities. Instead, we're taught to be competitive, fiery-eyed achievers. You can't be a fiery-eyed competitive little achiever and open up and accept anything.

We train our children to be a certain way, and it's awfully difficult after a certain age to get back to that point where there's the possibility of accepting something else. If that experience of being wide open has been denied to you, and nature doesn't enter into that welcoming embrace, then it's not going to in the future.

There's nothing to recall, to recollect. To reconnect to."

- John Livingston

FOUNDATION

The theoretical foundation of the DGBS can be summed up as:

- 1. How humans evolved to learn**
- 2. Indigenous child-rearing practices**
- 3. Raising children for the world we want**

How Humans Evolved to Learn

**Note: Our discussion of evolution and references to Western scientific research is not meant to imply the superiority of Western science, nor does it imply that the theory of evolution is superior to other explanations or cosmologies. These references are made since we realise that New Zealand's education system favours Western scientific explanations. However, since countless cultures have had countless ways of expressing the origins of life, and most have been far more sustainable than the currently-dominant culture, what is of utmost importance to us is how our cosmology affects the way we live. In other words, the real 'test' of a cosmology is whether it leads us to live in harmony with each other and with the natural world.*

Humans evolved over two million years to learn through free play in nature. We are no different from the multitude of other social animals that also learn through free play. (Burghardt 2014) As Charles Darwin wrote, “Happiness is never better exhibited than by young animals, such as puppies, kittens, lambs,...when playing together, like our own children” (quoted in Bekoff 2001). After all, as Aristotle wrote more than 2300 years ago in his *Politics*, “Man is by nature a social animal”. The anthropological record confirms that free play has been the way children have learned for two million years, while the first instances of deviation from this method only arose with the invention of agriculture ten thousand years ago (Gray Free, Manning 2004; Sale 2006). And even though agriculture began ten thousand years ago, it took another several thousand years before the majority of people on the planet were living in agricultural societies. Thus, **from an evolutionary and anthropological perspective, we learn best through free play.**

Since most people are unfamiliar with how learning can take place through free play, we will expand on this here. First, it should come as no surprise that time spent in nature is crucial to the mental, physical, intellectual and spiritual health of children (Chawla 2006; Gill 2011; Gray 2008, 2009, 2011, 2013, 2013; Louv 2008, 2012) Through free play children learn how to control their impulses, regulate their emotions, cooperate with others, and negotiate. Children become confident, tolerant, resilient, compassionate and empathetic. They exercise their creativity and curiosity, develop their physical skills, learn to take risks, and learn how to explain things to others. In short, it allows for the healthy development of physical, mental, intellectual and social skills. Free play in nature allows children to become fully human:

Children are biologically predisposed to take charge of their own education. When they are provided with the freedom and means to pursue their own interests, in safe settings, they bloom and develop along diverse and unpredictable paths, and they acquire the skills and confidence required to meet life's challenges. (Gray *Free to*

Learn)

Above all, the reason that free play works is that human **children are naturally curious and naturally learn through *observation and imitation***. (Hewlett and Lamb 2005, Lee and Daly 2004) This is why children surrounded by books and readers will also become readers. This is why children surrounded by those concerned with justice will also become adults concerned with justice. As everyone knows, children do what we do, not what we say.

Much of what are considered “behaviour problems” are a direct consequence of forcing children and teenagers into completely artificial and unnatural daily conditions. Long-term consequences of such play-deprived childhoods is widespread mental illness, physical weakness, and poor social skills. (Gray 2011) Another often-ignored consequence is that deprivation from natural sunlight also has negative health implications. (Hathaway 1992) And most overlooked is the research that demonstrates harm from introducing academic instruction too early in childhood. (Gray 2015) After all, we evolved over millions of years to grow up and live under certain conditions, and divergence from those natural conditions has serious consequences.

Nature is not a place to visit. It is home.
- Gary Snyder

Indigenous Child-Rearing Practices

We should likewise not be surprised to see that nearly the entirety of indigenous child-rearing practices place emphasis on free play for children as well. Reports from the European settlers on arriving to Aotearoa frequently refer to the indulging of children, the absence of coercion and the absence of violence among whanau. (Jenkins and Harte 2011)

Traditional indigenous child-rearing practices on Turtle Island (North America) included free play, learning through adult story-telling, and learning by watching adults model relevant skills. (Cajete, 1994; van de Sande and Menzies 2003) Furthermore, studies of hunter-gatherers indicate that most learning was based on *observation and imitation*, with only a small percentage of learning based on direct instruction. (Hewlett and Lamb 2005)

The importance of looking to indigenous child-rearing practices is to help guide us in how to best raise our children. As Sarah Hrdy points out:

Compared to earlier phases in Western civilization children are better off today. But not compared to our Pleistocene ancestors. Child survival rates are exponentially higher today. That's true. But those children who did survive back then were actually much better off in terms of the kind of nurturing environment that they experienced. Rates of child mortality were high, but there was no child abuse or emotional neglect. (Johnson 2012)

Furthermore, it was through studying hunter-gatherers and indigenous cultures that those in the Western world realised that leaving babies to cry as a method of child-rearing was completely harmful and that the healthiest way to raise a child is through attachment parenting, alloparenting and children being surrounded by loving extended family and a loving community – not being isolated within the recent social construct of “the nuclear family”. In a similar way, much of modern medicine's successes are based on the plant knowledge of indigenous people. Likewise, the United States of America's Constitution was based on observing the nearby Iroquois Confederacy – not from observing anything in Europe, where 'democracy' existed only in abstraction. (Grinde and Johansen 1990, Johansen 1982) And of course, today's popular “paleo diet” is based on how our hunter-gatherer ancestors ate. There is much to learn, should we look.

While there has continued to be a persistent Western prejudice towards indigenous people as being violent and “barbaric”, whether we look at Australia, Aotearoa or Turtle Island, it was actually the Europeans who taught indigenous to use violence against children. European missionaries taught that violence against children was necessary to create “good children” and then forced schooling of indigenous children subjected them to endless physical, emotional and sexual abuse. This was the European method of “civilising” indigenous children wherever they went. (Bruchac and Smelcer 2013; Churchill 2004; van de Sande and Menzies 2003) These historical realities are important to face as we seek those traditions which are sustainable and healthy.

The main point is that, from a cultural and historical perspective, humans have primarily raised their children through free play, relying on their innate curiosity and desire to observe and imitate.

“[A] primary orientation of Indigenous education is that each person is their own teacher and that learning is connected to each individual's life process. Meaning is looked for in everything, especially in the workings of the natural world. All things comprising Nature are teachers of mankind; what is required is a cultivated and practiced openness to the lessons that the world has to teach... Individuals are enabled to trust their natural instincts, to listen, to look, to create, to reflect and to see things deeply, to understand and apply their intuitive intelligence, and to recognize and honor the teacher of spirit within themselves and the natural world.

This is the educational legacy of Indigenous people.”

– Gregory Cajete

“Human beings will be happier – not when they cure cancer or get to Mars or eliminate racial prejudice or flush Lake Erie but when they find ways to inhabit primitive communities again. That's my utopia.”

- Kurt Vonnegut, Jr.

Raising Children for the World We Want

It goes without saying that we all want a healthy world for our children and future generations. Some features of a healthy world, based on what has been sustainable for most of the human existence on Earth, include:

- a world where everyone has ample leisure time
- a world where people can enjoy a great deal of time with friends and relatives
- a world where adult “work” is meaningful and rewarding
- a world where everyone is able to grow, gather or hunt their own food
- a world where there is ample space for everyone to live, close to nature
- a world where children can have childhoods which promote their health, happiness and well-being
- a world where everyone has a direct say in local decision-making
- a world free from pollution and tens of thousands of synthetic chemicals
- a world where the natural world is not destroyed
- a world where animals are not driven to extinction through human actions
- a world free from institutionalised warfare
- a world free from guns, tanks, military jets, nuclear weapons, chemical weapons, biological weapons – and free from armies as well
- a world where there is no hierarchy of domination and control
- a world free from surveillance
- a world where there is no rich and no poor
- a world free from infectious disease, alcoholism, drug addiction, diabetes, cancer, heart disease, Alzheimer's, ADHD, autism – what are often referred to as “diseases of civilization”
- a world free from slavery, racism, misogyny, domination of men over women, and child abuse

Whether it strikes the reader as fanciful or not, the anthropological record indicates that the above list is largely how pre-agricultural humans lived for roughly two million years. The oral traditions of surviving hunter-gatherers indicate the exact same thing. Most of the elements on the above list would also have been found until recent times among many horticultural indigenous groups, such as the nations of the Iroquois Confederacy on Turtle Island, and the Maori. **In essence, based on the full scope of the human presence on Earth, a healthy world – including healthy human communities - is entirely possible.**

However, between lovely-sounding stated aims of the adult world and adult actions exists a vast gulf. A brief review of the current state of the world does not provide us with a healthy picture:

- 650 million people have no access to safe drinking water (Burgess 2016)
- 2.5 billion people lack basic sanitation (Burgess 2016)
- The richest 1% own more wealth than *everyone else on the planet*, combined (Oxfam 2016)
- Within the next several decades, Climate Change will raise sea levels by several

meters (Hansen 2016)

- Oil companies have known about climate change *since as far back as the 1950s* and have been spending millions of dollars ever since to promote scepticism and non-action (DeMelle and Grandia 2016, Pauzenga 2016)
- The Fukushima nuclear disaster has been releasing at least 300 tons of radioactive water into the Pacific Ocean *every day*, since the disaster began five years ago, with no end in sight (LaForge 2016)
- Nearly one-quarter of all global deaths are caused by pollution (Pruss-Ustun 2016)
- During the Twentieth Century, 100 million people were killed in wars.
- Lest we think we have become more 'peaceful', Western wars have killed four million Muslims since 1990 (Ahmed 2015)
- On top of that, since 1996, more than five million people have been killed in the Congo to make sure the West continues its easy access to gold, diamonds, uranium, cobalt, tantalum and other rare earth metals used in modern technological gadgets (Estes 2012, Kinniburgh 2014, Torres-Spelliscy 2013)

And in New Zealand:

- According to a new Royal Society of New Zealand report, Climate Change will have devastating effects on New Zealand (Royal Society of New Zealand 2016)
- 99% of ancient kauri forests have been destroyed – mostly in the last two hundred years (Knight 2014)
- Two-thirds of New Zealand's rivers are unfit for swimming (Morton 2015)
- 90% of lowland wetlands have been destroyed (Joy 2015, Macfie 2015)
- 44% of lakes are eutrophic - inhospitable to fish (Joy 2015, Macfie 2015)
- Three-quarters of native freshwater fish are threatened with extinction – up from 20% in the 1990s (Joy 2015, Macfie 2015)
- New Zealanders' favourite pesticide, glyphosate, is a “probable carcinogen” according to the World Health Organization - yet New Zealanders continue to spray it on lawns, school grounds, public spaces – and food – as they have for the last 25 years (Cressey 2015, Di Boni 2015, Huff 2016)
- New Zealand consistently ranks among countries with the highest rates of depression (Newton 2011)
- Income inequality is rising faster in New Zealand than nearly all other developed countries (Fyers and Kirk 2015)
- Between 2008 and 2013, prescriptions for anti-depressants in New Zealand increased 20% (Mental Health 2014)
- Ten percent of New Zealand workers reported being harassed, discriminated against or bullied (Cowlishaw 2014)
- New Zealanders have one of the highest drug-use rates in the developed world (Backhouse 2012, Ministry of Health 2010)

Since adults generally claim to want “the best” for their children, let us briefly look at how our youth in New Zealand are faring:

- New Zealand consistently has among the worst rates of adolescent suicides (Science Media Centre 2012)
- More and more young New Zealanders under the age of 25 are falling under lower income brackets (Fyers and Kirk 2015)
- Binge drinking for adolescents has been consistently increasing (Tahana 2013)
- Bullying in New Zealand schools is among the worst in the world (Mullis, Martin, Foy & Arora 2012)

Simply put, nearly every indicator of social and ecological health is in serious decline. It is our behaviours of the past – especially of the past several generations – that have brought us to this point. And despite many of us being aware of global problems such as climate change, the nuclear industry and increasing poverty, all these problems have continued to get worse and worse, especially over the last one hundred years. These conditions do not constitute “progress”. **Thus, we can only conclude that in order to solve all these global problems we cannot continue to live, act, or think in the same ways.**

What we have to conclude from the above list is that if we genuinely want to give our kids a healthy world, then we must completely change our mindsets, our values, our assumption and our way of life. **A paradigm shift is absolutely necessary.**

But now is not the time for despair, apathy or inaction! We need only rediscover the healthy condition of the natural world and the healthy conditions of humans during the last two million years. For nearly all of that time – until the invention of agriculture – humans lived in harmony with the natural world. They lived in the most sustainable way that humans have ever lived. These human societies were egalitarian, mental illness was unheard of, children had long, joyful childhoods, people were healthy and full of vigour, life was full of meaning – and adults lived rather long lives. Since this is the way humans lived for two million years, **and this is the only way of living that has ever been sustainable, we can use our forgotten past as a guide for a healthy future – this is the essence of the term “re-wilding”.** This understanding is what is meant by raising kids for the world we want. It involves challenging taken-for-granted assumptions, changing the way we think and changing the way we live.

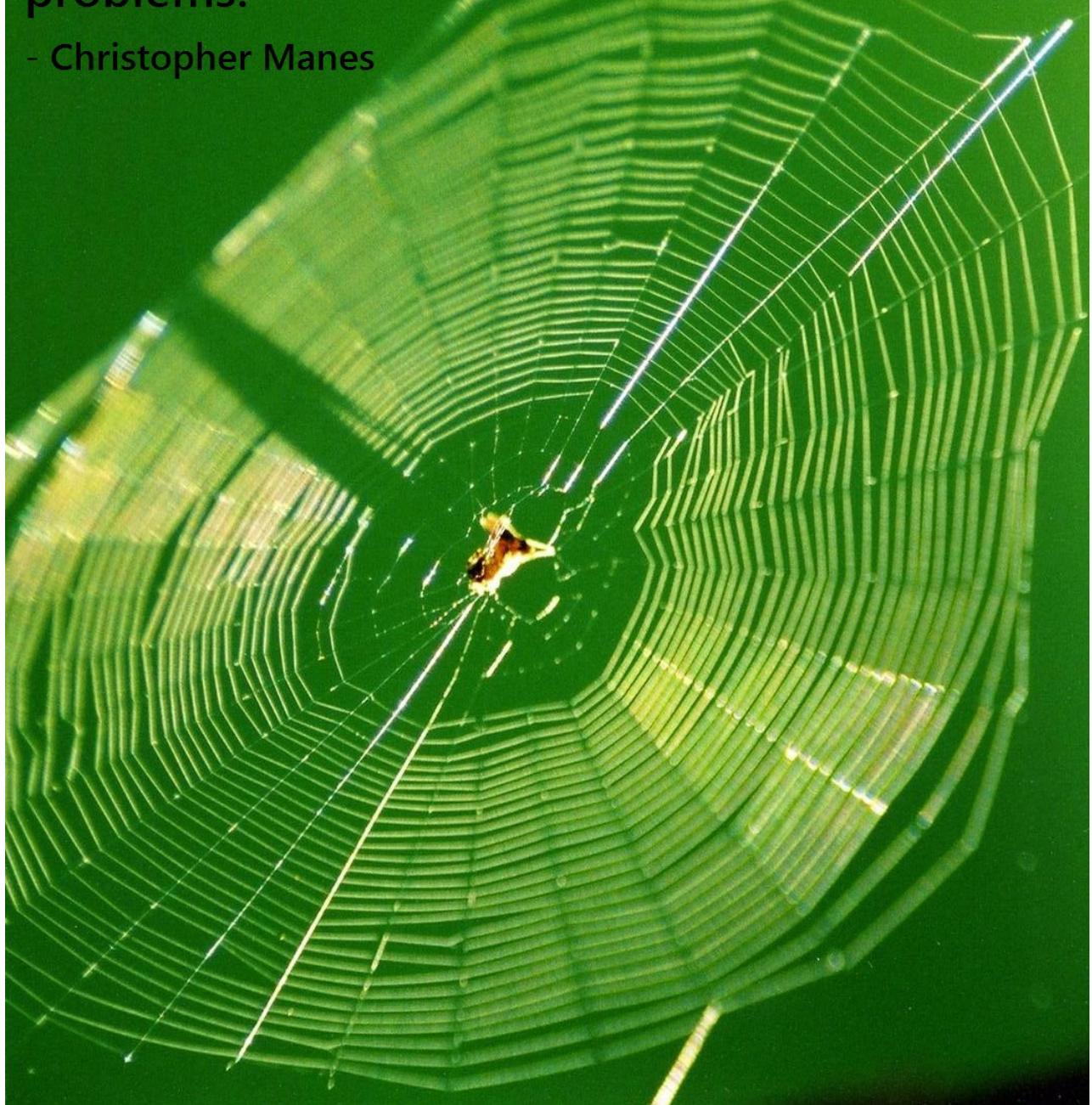
We have the power to give our kids and ourselves a healthy world, should we desire it.

“So while I still hate to readjust my thinking, still hate to give up old ways of perceiving and conceptualizing, yet at some deeper level I have, to a considerable degree, come to realize that these painful reorganizations are what is known as learning.”

- Carl Rogers (1995)

"Without a vision nothing is possible. But young people have imagination and vision, and imagination is what will save us. That's all it takes, a vision, even though it seems impossible to attain. The impossible is exactly what's required to solve our environmental problems."

- Christopher Manes



VALUES AND QUALITIES

We have designed the Deep Green Bush-School to nurture specific values and qualities that will be necessary if we want our children to be able to help heal the world. These are the values and qualities that will promote their health, happiness and well-being. These are values and qualities which will enable them to succeed as adults. Furthermore, the values and qualities promoted and nurtured by the curriculum and methods of the DGBS are in line with the New Zealand Curriculum:

- **Cooperation:** Cooperation was the basis for human relations through two million years of human existence and continues to be a fundamental requirement for a healthy society. It is the opposite of competition.
- **Empathy:** Empathy means being able to understand what others – both human and non-human – may be feeling, and to act accordingly. When one is empathetic, injustice is impossible.
- **Curiosity:** Children are naturally curious and should be allowed to follow their curiosity. It is how they discover the world and discover who they are.
- **Creativity:** Creativity is nurtured in a stress-free, natural environment. Free play in nature is essential for children to develop and strengthen their creativity. Our teachers are open to all that creativity implies, for as Carl Rogers (1995) wrote, “The very essence of the creative is its novelty, and hence we have no standard by which to judge it.”
- **Critical thinking:** Critical thinking is developed through a relaxed environment in which students are allowed to ask questions, free from worry. Through critical thinking students learn how to discern injustice and figure out right from wrong.
- **Intrinsic motivation:** When children are given free play – and are not coerced to do things – then they learn what motivates them and they learn how to act from their own inner convictions. Deep thinking – and true learning – is then possible.
- **Joy for living:** Free play in nature nurtures the innate joy for living in children, ensuring that they will grow into mature and responsible adults – who are still full of joy.
- **Resilience:** Resilience is nurtured through free play in nature, making it more likely that children will be able to cope with life's stresses later in life. It also makes it more likely that children will grow into adults who are able to confront global problems and act in an effective manner.
- **Flexibility:** Flexibility is essential for healthy relationships and being able to adapt to life's twists and turns. Democratic decision-making and being outdoors everyday develops the child's ability to be flexible.
- **Social (collective) responsibility:** When a child is given the freedom to play and explore in nature according to their innate tendencies, their capacity for empathy and compassion develops, which naturally leads to a concern for other people, how their actions affect others and what responsibilities they have to ensure the health of their community.

- **Global justice:** A sense of social responsibility naturally leads to a concern for global justice, and, together with critical thinking, leads the student to ask questions which will help them discover the root causes of global injustice. With their empathy, resilience and creativity, they will then be in a prime position to do act effectively.
- **Democratic decision-making:** Students are given the opportunity to make decisions which affect their daily lives, including making decisions in a group and which affect the entire group. This both requires and develops empathy and social responsibility.
- **Ecological awareness:** Free play in nature, in addition to the mentoring of our teachers, will develop an understanding for the rythms and patterns of nature, and especially for those actions which are in harmony with nature and those which are not.
- **Sustainability:** Social responsibility, empathy and ecological awareness will lead the student to a sense of sustainability; they will come to learn about behaviours, ideas and activities which help sustain the natural world and human communities, and those which are harmful.
- **Interdependence and interconnectedness:** Students at the DGBS, through free play in nature and the Culture of Sustainability, come to learn that no one exists apart from anyone or anything else; in fact, they realise that everything is connected and that well-being is ensured when they act with the understanding that the world depends on them, just as they depend on the world.
- **Deep connection with nature:** The time students are allowed to experience nature in freedom is essential for developing a deep connection with nature, and seeing that it is not a 'resource' but an extension of themselves, it is not a stranger but their kin, and as Gary Snyder said, not a place to visit but home.
- **Harmony with the natural world:** Empathy, ecological awareness, social responsibility and their deep connection will ensure that students learn how to live in harmony with the natural world and take the necessary steps so that the society around them also learns to live in harmony.
- **Connection to community:** Through the parents involved, the community members who come to share knowledge, the natural areas we spend time in, and getting to know the plants and animals around them, students develop a sense of community that is not just anthropocentric, but includes everything around them.
- **Appreciation for ancestral wisdom and intergenerational knowledge:** Students come to appreciate the immense wisdom and knowledge of our ignored ancestors, and how crucial wisdom is in guiding our behaviours.
- **Practical skills and knowledge for healthy living:** At the DGBS students learn how to provide for themselves and take care of themselves, building their confidence and resilience and ensuring their ability to live in harmony with the natural world.

The important point is that those qualities which we wish to see in our children must be modelled by the adults around them. If we want children to form deep connections with nature, then we must give them the chance. That is what we do at the Deep Green Bush-School. If we do not want our children to become techno-addicts then we must make that

explicit and model it. That is what we do at the Deep Green Bush-School. If we want them to learn healthy decision-making, then that must be modelled. If we want to end the colonisation of other cultures then we must stop imposing Western culture on everyone else. That is what we do at the Deep Green Bush-School.

The values and qualities that children learn are a result of cultural institutions and adult behaviour. If we truly value curiosity, creativity and sustainability, then our child-rearing must mirror that.

**Treat the earth well: it was not given to you
by your parents, it was loaned to you by your
children. We do not inherit the Earth from our
Ancestors, we borrow it from our children."**
- ancient Indian proverb



"Each of us is an animal, and a child of this earth. Each of us has responsibility to all other animals and plants and to the process of evolution that created us. All of us alive now are members of the most important generation of human beings who have ever lived, because we're determining the future, not just for a hundred years, but for a billion years."

- Dave Foreman (Jensen 1995)

OVERVIEW OF KEY ELEMENTS

MIXED AGES

Areas of the NZ Curriculum mixed ages supports:

Vision: confident, connected, actively involved, lifelong learners

Principles: Treaty of Waitangi, cultural diversity, inclusion

Values: diversity, equity, community and participation, integrity

Key Competencies: managing self, relating to others, participating and contributing

In accord with how humans evolved to spend their childhoods, we do not segregate by age. Younger children learn from older children, and older children learn to be mentors. Older children also learn to care in ways which will be invaluable when they later become parents. (Gray 2011, “Special” 2013, “Free”; Katz 1995; Liu 2014)

Running with mixed age groups allows the younger ones to have role models to look up to and also gives older ones a chance to be leaders and mentors. They learn alongside each other peacefully both remembering and realising what came before them and what is to come in the future. It is also beneficial for children at various stages of development and maturity as they do not stand out as being ‘weird’ or ‘strange’. Everyone plays and participates in ways that suit their own needs and abilities. We promote independence and working together as a community. Children play or spend their time with each other or alone, depending on their own initiative. Since play with others is generally the most fun, children learn how to cooperate in order to meet everyone's needs.

**“Life is playfulness...We need to play so that we can rediscover
the magic all around us.”**

- Flora Colao

FREE PLAY

Areas of the NZ Curriculum free play supports:

Vision: confident, connected, actively involved, lifelong learners

Principles: Treaty of Waitangi, cultural diversity, inclusion

Values: diversity, equity, community and participation, integrity

Key Competencies: managing self, relating to others, participating and contributing

At the DGBS there are no set classes, no tests, no grades and no homework. We allow children to develop naturally, according to their innate curiosity. This is how humans evolved to learn. (Gray 2008, “Educative”, 2013, “Free”, 2009; Konner; Lamb 2005; Narvaez ; Pellegrini 2006; Turnbull 1962, 1983) Dr. Peter Gray, in *Free to Learn* (2013), writes extensively on the benefits of free play:

Free play is nature's means of teaching children that they are not helpless. In play, away from adults, children really do have control and can practice asserting it. In free play, children learn to make their own decisions, solve their own problems, create and abide by rules, and get along with others as equals rather than as obedient or rebellious subordinates. In vigorous outdoor play, children deliberately dose themselves with moderate amounts of fear – as they swing, slide, or twirl on playground equipment, climb on monkey bars or trees, or skateboard down banisters – and they thereby learn how to control not only their bodies, but also their fear. In social play children learn how to negotiate with others, how to please others, and how to modulate and overcome the anger that can arise from conflicts. Free play is also nature's means of helping children discover what they love. In their play children try out many activities and discover where their talents and predilections lie. None of these lessons can be taught through verbal means; they can be learned only through experience, which free play provides. The predominant emotions of play are interest and joy.

Conversely, a lack of free play can undermine our attempts at raising children who care about the natural world:

The problem with most environmental education programs for young children is that they try to impart knowledge and responsibility before children have been allowed to develop a loving relationship with the earth...We need to allow children to develop their biophilia, their love for the Earth, before we ask them to save it. Rather than books and lectures, nature itself is children's best teacher. (White 2004)

In other words, children need to be given the chance to play freely in the natural world and to develop a deep connection with nature. This is how one raises children who will care about the natural world.

Similarly, another aspect of free play within a sustainable society that is largely ignored or unrecognised is that it is based on both trust in children and adults acting in sustainable ways. First, all children are naturally curious, they learn by observing and mimicking, and they participate when they feel ready. We must trust them on this. Granted this freedom, then children will naturally learn from the adults around them. Thus, if we want healthy children, we need to have healthy adults. There is no way around this. To talk about sustainability while engaging in unsustainable behaviours (like flying in airplanes, watching TV, going to shopping malls, eating fast-food, etc.) will only result in the perpetuation of the *unsustainable* behaviours. Furthermore, to talk about sustainability while using unhealthy *methods* (i.e. coercion) will also result in only more unsustainable behaviours. One cannot “force” sustainability.

The essential component of free play is adults engaged in healthy behaviours. This is what we attempt to provide at the Deep Green Bush-School. This does not require that all adults at the DGBS be 'perfect', since we recognise that we are all at different stages in our own development and understanding. What is necessary is that the adults are keen to further their own development and understanding towards increasingly greater health and

sustainability, and a willingness to put the health, happiness and well-being of our children, future generations and the planet as their highest priority.

Finally, free play as a primary method for learning is harmonious with the New Zealand Curriculum, as shown in the attached mind map.

**"Play is the only way the highest intelligence
of humankind can unfold."**
- Joseph Chilton Pearce

IMMERSION IN NATURE

Areas of the NZ Curriculum immersion in nature supports:

Vision: confident, connected, actively involved, lifelong learners

Principles: Treaty of Waitangi, cultural diversity, inclusion, community engagement, future focus

Values: diversity, equity, community and participation, ecological sustainability, integrity

Key Competencies: thinking, managing self, relating to others

The corollary to free play is, of course, free play *in nature*. We did not evolve for free play in front of a computer screen, nor behind walls. Nature is both the greatest teacher and the best cure for the afflictions and poisons of civilisation. Modern research confirms that time in nature is essential for the healthy development of children and teens. (Davis 2004; Gill 2011; Kellert 2005; Louv 2008, 2012) Nature is the healthiest cure for a stressed, manic, diseased, hyper-consumerist world. Wisdom is only gained through connecting with nature and immersion in nature. Connecting with nature also increases empathy and compassion, as well as an understanding of the interdependence of all life. (Cajete 1994; Carr 2011; Cobb 1959; Konner 2005; Lamb 2005; Louv 2008, 2012; Plotkin 2007; Selhub 2012; Shephard 1982; Snyder 1990, White 2004) At the DGBS youth also have the chance to learn and practice a wide range of nature-based skills and knowledge.

The importance of nature cannot be overstated. It is absolutely crucial to healthy human development. As Richard Louv (2016) states, “Research suggests that exposure to the natural world – including nearby nature in cities – helps improve human health, well-being, and intellectual capacity in ways that science is only recently beginning to understand. People need nature for healthy development. We know that.” This is also recognised by New Zealand's Department of Conservation (DOC) whose summary of research concludes that “without direct experiences in nature, research findings suggest that children are missing opportunities to enhance their health and well-being, and to develop responsible long-term environmental behaviour.” (Department of Conservation 2011, Wilson 2011)

The immense differences between being indoors and being outside in nature is not fully realised:

Studies have revealed the enormous physiological changes that occur in going from indoors to outdoors, or vice versa; breathing and heartbeat change; digestion, perspiration, and excretory functions alter; hormonal activity associated with the light-sensitive pituitary and pineal glands are also affected. Almost all the functions of the autonomic nervous system slow down when one is enclosed in a building or vehicle, because these functions are tuned to subtle changes of natural light and geomagnetism. (Lawlor 1991)

In fact, the role of nature in childhood development is little understood. Paul Shepard (1982) explains the three sequential and critical aspects of childhood: Matrix I, bonding to the mother; Matrix II, bonding to nature; and Matrix III, bonding to the cosmos. The first two phases are necessary in order to reach the third, in which a child grows up and is able to become a healthy participant in the human and non-human world surrounding him. Yet the second phase is the one that has been nearly completely erased from childhood:

Matrix II [bond to nature] is the least understood. It embraces the child's fascination with nature, his spontaneous enthusiasm for the names and natural history of plants and animals, and the soaking-in-a-place which makes it the basis of the intuition of an orderly universe. (quoted in Livingston 1994)

Livingston (1994) elaborates on the process of Matrix II:

It seems that, for the bonding to Nature to be consummated fully, it needs to take place in pre-adolescence. The somewhat tentative and unfocused venturings of the toddler stage develop in later childhood into full-blown curiosity, fascination, and total involvement with phenomena that are not human.

Similarly, Edith Cobb (1959) wrote years ago that the potential for “genius” emanates directly from “the child's perceptual relations with the natural world”:

[T]here is a special period, the little-understood pre-pubertal, halcyon, middle age of childhood, approximately from five or six to eleven or twelve...when the natural world is experienced in some highly evocative way, producing in the child a sense of some profound continuity with natural processes.

This concept is so important that we will continue with it further. Paul Shepard expands on Cobb's ideas:

Children of middle years, from about six to eleven, are engaged in expanding awareness from body to the organic surroundings, from self to the ecosystem. In this employment of their own bodies as a kind of flying shuttle, they embody the inherent integration of the small world of yard and garden, whose special places hold a constant relationship to each other, predisposing their own perception of meaning in the disparate fragments of experience. In this play of body and earth the landscape becomes a model and method of anticipated knowledge, juxtaposing the systems of the body and the structure of the living nature. After infancy it is the first great coherence between already existing patterns of the body and the Other, the

unpremeditated discovery that such resonance is itself a tool. The great leap in comprehension from the microcosm of the self to the macrocosm of the mysterious universe is otherwise confronted by an impossible distance, but the leaping, dancing play of boys and girls prepares an ecological bridge, a vehicle of insight and intuition.

In other words, through childhood connections with nature, the child begins to discover the world and it is that natural world which becomes an extension of the child. Rachel Carson (1998) puts it another way:

For the child...it is not half so important to know as to feel. If facts are the seeds that later produce knowledge and wisdom, then the emotions and impressions of the senses are the fertile soil in which the seeds must grow. The years of early childhood are the time to prepare the soil. Once the emotions have been aroused – a sense of the beautiful, the excitement of the new and unknown, a feeling of sympathy, pity, admiration or love – then we wish for knowledge about the object of our emotional response. Once found, it has lasting meaning.

Without these deep childhood experiences with the natural world, there will be no connection with nature as adults, unless one consciously and diligently attempts to re-connect with nature, which is no small task. Our behaviour as adults rests on these childhood experiences with nature. As Bill Plotkin (2007) explains, “every human being has a unique and mystical relationship to the wild world, and...the conscious discovery and cultivation of the relationship is at the core of true adulthood.” In other words, how well we bond to nature as children will dictate how we act as adults, because the nature experiences are among the richest we will ever have. Let's continue with Rachel Carson (1998):

A child's world is fresh and new and beautiful, full of wonder and excitement....What is the value of preserving and strengthening this sense of awe and wonder, this recognition of something beyond the boundaries of human existence? Is the exploration of the natural world just a pleasant way to pass the golden hours of childhood or is there something deeper? I am sure there is something much deeper, something lasting and significant.... Those who contemplate the beauty of the earth find reserves of strength that will endure as long as life lasts. There is symbolic as well as actual beauty in the migration of birds, the ebb and flow of the tides, the folded bud ready for the spring. There is something infinitely healing in the repeated refrains of nature.

Carson is correct - a deep connection with the natural world is vital to our children's health. Without a childhood immersed in nature, “a kind of 'ecophobia' or fear of the natural world can develop if a child is deprived of first-hand experience and interaction with the environment.” (O'Shaugnessy 2013) Worse, so long as it is the modern, urbanised, mechanised, computerised and artificial environment that children are connecting to, then when they grow up they are unlikely to care about the increasing destruction of the natural world that the modern urbanised life requires:

The child by nature loves the environment. By helping the child forge an emotional bond with nature, we help guarantee survival of the species as well as renewed health for our planet. We will not fight to save something we do not love. (O'Shaugnessy 2013)

And this is what it comes down to: Without a deep connection with nature, children will not grow up to care enough about the natural world to do what it will take to protect it (Chawla 2006; Monbiot 2012, White 2004). Let us finish with Livingston (1994):

For the child who has bonded with and thus *become* non-human Nature, and who retains the capacity to retrieve that self-identity through adulthood, the willful, deliberate, and conscious wounding of Nature is impossible, because that would be self-mutilation. Everyone knows that self-mutilation is crazy. For the child denied that experience, however, the mutilation of Nature may be wrought without the slightest inhibition. (emphasis in original)

In essence, when we are allowed to connect with nature as children, we come to view nature as part of ourselves. We would never want to harm nature, for that would be suicide. At the DGBS, we are providing children with the opportunity to establish those deep connections with the natural world, to expand their notion of themselves so that they can grow up to be adults who can act in mature and responsible ways, as fully connected with the natural world as all previous sustainable cultures have been.

"Most of those I know who fight for nature are people who spent their childhoods immersed within it. Without a feel for the texture and function of the natural world, without an intensity of engagement almost impossible in the absence of early experience, people will not devote their lives to its protection."

– George Monbiot

As a species, we are most animated when our days and nights on Earth are touched by the natural world.

- Richard Louv

IMMERSION IN COMMUNITY

Areas of the NZ Curriculum immersion in community supports:

Vision: confident, connected, actively involved, lifelong learners

Principles: Treaty of Waitangi, cultural diversity, inclusion, community engagement, future focus

Values: diversity, equity, community and participation, integrity

Key Competencies: managing self, relating to others, participating and contributing

The DGBS is not an isolated, separate bubble where youth are detached from the real world, but rather they are connected with the community, taking advantage of public spaces such as parks, wild areas and community vegetable gardens. Youth learn to appreciate and contribute to public resources.

We reject the notion that children must be kept separate from whanau and community. Knowledgeable community members are welcomed into the school to share knowledge, skills and wisdom. And of course, we welcome whanau participation and do not exclude family from being able to spend time with their children, or simply enjoying the natural world. Parents can participate as much or as little as they desire.

DEMOCRATIC DECISION-MAKING

Areas of the NZ Curriculum democratic decision-making supports:

Vision: confident, connected, actively involved, lifelong learners

Principles: Treaty of Waitangi, cultural diversity, inclusion

Values: diversity, equity, community and participation, integrity

Key Competencies: managing self, relating to others, participating and contributing

At the DGBS youth learn the responsibility inherent in freedom and demonstrate how well people can manage themselves, free from coercion. (Gray, 2013, “Free”; Grinde, 1990; Johansen, 1982) We begin each day with a *talking circle* in which relevant matters are discussed and decided upon. This includes rule-making and decisions over activities.

There are enormous benefits to democratic learning:

- Increases intrinsic motivation
- Increases empathy and compassion
- By participating in a democracy, children are more likely to value and strive to protect or develop democratic decision-making in the larger world.
- Develops social skills
- Promotes an awareness of social justice
- Raises self-esteem
- Increases enjoyment of learning
- Promotes critical thinking
- Promotes creativity and curiosity
- Provides a positive environment for learning to take risks and make mistakes
- Provides the ideal environment for non-conformity and the development of uniqueness
- Develops personal responsibility

It does not take much to see how democratic decision-making supports the New Zealand Curriculum's vision (developing confidence, students who are actively involved), the principles (such as the Treaty of Waitangi, inclusion, and future focus), the values (equity, community and participation, and integrity) and the key competencies (thinking, managing self, relating to others, and participating and contributing). For a more explicit reflection of how democratic decision-making supports the New Zealand Curriculum, see the attached mind map.

ANCESTRAL AND INDIGENOUS WISDOM

Areas of the NZ Curriculum indigenous wisdom supports:

Vision: confident, connected, actively involved, lifelong learners

Principles: Treaty of Waitangi, cultural diversity, inclusion, community engagement, future focus

Values: diversity, equity, community and participation, integrity, ecological sustainability

Key Competencies: thinking, managing self, relating to others, participating and contributing

Every sustainable society that has ever existed relied on ancestral wisdom and intergenerational knowledge. Both are necessary to provide the context and guidelines for healthy living and from which children can then explore the world. Without these boundaries, people become nihilist and easily destroy the world around them (hence the flaw in constructivist thinking). In terms of social and ecological sustainability, we have much to gain from looking for guidance from people who have lived for a thousand years, and sometimes tens of thousands of years, without destroying the land or the general well-being of the people. For us in Aotearoa that means learning from traditional Maori and Polynesian knowledge and wisdom, as well as the knowledge and wisdom of indigenous cultures around the world. (Basso 1996; Broker 1983; Cajete 1994; Davis 2009; Grinde 1990; Johansen 1982; Lambert 1993; Liebenberg 1990; McGowan 2009; Meyer 2010; Riley 1994; Robinson 2005; Sahlins 1974, 2009; Turnbull 1962, 1983; Williams 1996; Wilson; Wolff 2001; Woodburn 1982)

Consider this description:

The Aboriginals had an earthbound philosophy. The earth gave life to a man; gave him his food, language, and intelligence; and the earth took him back when he died. A man's 'own country', even an empty stretch of spinifex, was itself a sacred ikon that must remain unscarred. (Chatwin 1987)

How this all applies to us in the “modern world” is considered by Professor John Gowdy (1999):

It is somewhat comforting to realize that the blueprint for survival is contained within our cultural history. Judging from historical accounts of hunter-gatherers, for most of the time humans have been on the planet we have lived in relative harmony with the natural world and with each other. Our minds and cultures evolved under these

conditions. Understanding how hunter-gatherer societies solved basic economic problems, while living within environmental constraints and with a maximum of human freedom, may give us a key to ensuring the long-term survival of our species.

Wade Davis (2013), world-famous anthropologist and ethnobotanist, puts it this way:

Traditional societies do not exist to help us tweak our lives as we emulate a few of their cultural practices. They remind us that our way is not the only way. A child raised in the Andes to believe that a mountain is a protective deity will have a relationship with the natural world profoundly different from that of a youth brought up in America to believe a mountain is an inert mass of rock ready to be mined. The mythology of the Barasana and Makuna people is in every way a land management plan revealing how human beings once thrived in the Amazon rain forest in their millions...By their very existence the diverse cultures of the world bear witness to the folly of those who say that we cannot change, as we all know we must, the fundamental manner in which we inhabit this planet.

We are not claiming that indigenous cultures were perfect; yet in terms of sustainability we have more to learn from indigenous cultures than we do from perpetuating a clearly unsustainable mindset and lifestyle. Thus, we encourage the ability, as C.A. Bowers has written about, **to identify and perpetuate only those traditions which are sustainable, while any traditions that are unsustainable should be recognised and discarded.** (Bowers 1992, 2001) This takes honesty, courage and the desire for the health, happiness and well-being of our children and the planet.

"One wonders who knows more about the coyote, the zoologist
who is able to study its external habit and dissect its cadaver
or the Indian medicine man who identifies himself with
the "spirit" of the coyote?"
— Seyyed Hossein Nasr (Nasr 1989)

HOLISTIC APPROACH TO MODERN TECHNOLOGY

Areas of the NZ Curriculum the holistic approach to modern technology supports:

Vision: confident, connected, actively involved, lifelong learners

Principles: Treaty of Waitangi, cultural diversity, inclusion, future focus

Values: diversity, equity, community and participation, integrity, ecological sustainability

Key Competencies: thinking, managing self, relating to others, participating and contributing

The Deep Green Bush-School recognises recent research and social observations indicating that modern technology inhibits and prevents healthy mental, emotional and physical

development – especially for our tamariki and rangatahi. A nature-filled, tech-free environment promotes the healthiest growth possible – the best preparation for their adult lives.

Despite corporate advertising, technology does not increase learning. (Armstrong 2000; Campaign 2015; OECD 2015; Selwyn 2014) Technological gadgets are not invented and sold for the health and well-being of the people and the planet, but simply to generate profits for corporations. Recent research is demonstrating that reliance on technology undermines deep learning, weakens the ability to think and interact with others, and inhibits healthy human development. (Carr 2011) Yet nearly all government and private institutions are obsessed with modern technology. They are ignoring the clear dangers from wireless radiation. (Blank 2014; Carlo 2002; Davis 2011) We at the Deep Green Bush-School, by not relying on modern technology, pass on enormous health benefits to our tamariki and rangatahi. (Alliance 2000, 2004; Bowers 1992, 2000 “Let”, 2002, 2014; Campaign 2015; Freed 2015; Huesemann 2011; Keen 2013, 2015; Louv 2008, 2012; Mander 1978, 1992; Moncarz 2015; Morozov 2012, 2013; Mumford 1966, 2010; Postman 1984, 1993, 1994; Sale 1996; Slade 2012; Tenner 1997, 2004; Zerzan 1990, 2005)

Here we will briefly expand on the seriousness of the proliferation of Wi-Fi and other wireless devices throughout schools and our communities. In 2011 the World Health Organisation classified wireless radiation as a Class 2B “possible human carcinogen”, in the same category as lead and the banned pesticide, DDT. (EMF 2011) In 2011 the Council of Europe, with 47 member nations, advised that governments should “for children in general, and particularly in schools and classrooms, give preference to wired Internet connections, and strictly regulate the use of mobile phones by schoolchildren on school premises”. (Smith 2011) Health and education officials in numerous countries have issued warnings about the use of wireless devices - especially around children. (Safe in Schools 2011, 2014) There is an enormous body of evidence – in terms of thousands of studies - that points to the harm of wireless radiation. (Blank 2014, Carlo 2002, Davis 2011, Sage and Carpenter 2012, Singer 2014) Children, in fact, are much more vulnerable to the negative health effects of wireless devices than are adults. Numerous schools and countries around the world have already acted upon the research and evidence. For these reasons, and in accord with *the Precautionary Principle*, the Deep Green Bush-School will be a wireless-free location. (COMEST 2005, Martuzzi and Tickner 2004, Myers 2013)

Another often-ignored characteristic of any technology is that while it extends some human ability, it also weakens that same ability. (Bowers 1992, 2002) Similarly, all technologies are rooted in alienation. For example, the more we use cars, the less we walk and therefore the weaker physically we become. In addition, the more we use cars and the less we walk, the less connected we are to our neighbours, the land around us and the natural world in general. In this way we become increasingly alienated. One can also see how the computer, as an extension of human memory, also weakens memory. There is no need to remember anything, since Google will do it for you. (Carr 2011) As for alienation, the more time we spend with our computer, the less time we spend in face-to-face interactions with other humans, the more time we spend sitting indoors and the less time we spend connecting with the natural world. That is alienation. One can pick any modern technological gadget and the results will be the same. Our increasing reliance on technology is weakening us

physically, weakening us socially and alienating us from the natural world – making it easier for us to then destroy it.

Our alienation from each other and from the natural world is exposed when we consider that no piece of modern technology is even possible without mining, without carcinogenic chemicals, without factories, without pollution and without destroying the natural world. And furthermore, no one by choice would ever willingly want to work in a mine, work in a factory, live near a mine or factory or drink the water from waterways passing near mines and factories; rather, their communities must be subjugated and oppressed and people must be forced to work and live there. Given these realities, when those parents in the “developed world” are willingly to work in the mines or send their own kids to work in the mines, and when those same adults are willing to live next to mines and factories, then such technologies could possibly be deemed acceptable. Until then – until the true costs of modern technology are recognised and assumed by *those who use them* – then one cannot morally accept modern technology within a sustainable society.

It may be argued that we cannot simply toss out all technology today. That much is true. But it would be a vast improvement for us **to limit our use of technology to that which is necessary**, as a healthy first step. For example, video games, cameras, mp3 players, hair dryers, and a multitude of other products are simply not necessary for work or for life. Furthermore, the extent to which cars, computers and phones are currently used is pathological and reflects an addiction. Addressing this would be an additional positive step.



We all live on one spider web,
every person on Earth
all animals, trees and plants
the rivers, mountains and oceans
and all things
that we may not see or know.
All things in this world are connected,
though we cannot see the strands
though the distances are far
though we may not see or know.
And so all our actions and all our thoughts
affect the web
and everything on it
though we may not see or know.

So we must always ask,
what effect does our way of life have
on the people, animals, trees,
rivers and mountains
that are out of sight?
Since we are all connected,
we do affect them all,
though we may not see or know.

Consider a computer or phone,
and contemplate its production
and who does the mining for its parts
what the mining does to the
people, animals, trees,
rivers and mountains.
Or the factories far away
and the lives of the people working
and the streams that flow nearby
carrying a message through the oceans
to your shore.
Think of the oil needed
to dig the mines
to build and run the factories
to transport it all around the world
and where that oil comes from
and what it does to the
people, animals, trees,
rivers and mountains.
Since we are all connected,
we do affect them all,
though we may not see or know.

EXPLORING ALTERNATIVES

Areas of the NZ Curriculum exploring alternatives supports:

Vision: confident, connected, actively involved, lifelong learners

Principles: Treaty of Waitangi, cultural diversity, inclusion, community engagement, future focus

Values: diversity, equity, community and participation, integrity, ecological sustainability

Key Competencies: thinking, managing self, relating to others, participating and contributing

Healthy alternatives in our communities are often hidden behind corporate advertising and control. At the Deep Green Bush-School youth will learn to identify whether an activity/job/product/mindset is socially and ecologically healthy, and if not, what the healthy alternatives are. The key idea is that there are healthy and meaningful alternatives to everything.

We aim to help heal Aotearoa. With increasing poverty, inequality, corporate control and environmental destruction, those who do not challenge the status quo approve of the status quo – consciously or otherwise. We at the Deep Green Bush-School will ask the right kinds of questions and then explore alternatives - for the benefit of all of us. (Bowers 1992, 2001; “Cochabamba”; Greer 2008, 2009; Heinberg 2015; Illich 2000; Klein 2014; Manning 2004; Ratey 2014; Tokar 2010; Zerzan 1990)

“Teenagers want to be able to fight for what's right - but finding out what's right is now 90 percent of the battle.”
- Maggie Stiefvater

AFFORDABLE

Areas of the NZ Curriculum affordability supports:

Vision: confident, connected, actively involved, lifelong learners

Principles: Treaty of Waitangi, cultural diversity, inclusion, community engagement, future focus

Values: diversity, equity, community and participation, integrity

Key Competencies: thinking, relating to others, participating and contributing

The only way to transform and heal society is to make an alternative to school affordable for everyone. There are many ways to reach more people in our community, and we will continue to explore them.

“The activities that are the easiest, cheapest, and most fun to do – such as singing, playing games, reading, storytelling, and just talking and listening – are also the best for child development.”
- Jerome Singer

DAY-TO-DAY RUNNING

A brief overview of relevant aspects of the day-to-day running of the DGBS will now be given to provide the necessary context.

Size

Due to the sustainable and outdoor nature of the school, we will limit our size to no more than roughly 50 children and teens per school location. Should there be greater demand, we will explore opening separate branches in other communities. Also, by focusing on less than fifty youth we will be able to provide a stress-free and relaxed environment which would be eroded by higher numbers – for as generally happens, the more people are crowded together, the more bullying, the more fights, the more stress, and the more unhappiness. It is the same with other social animals: whether cows or chickens (as in factory farms) or mice, when they are crowded together anti-social behaviour increases. (Livingston 1994, Morris 1969) This is as commonplace a phenomenon as the sun rising in the east: social animals need their space. And since we are not motivated by “numbers” then we can treat each child as the human animal they are, rather than a commodity, with their well-being as our highest priority.

Democratic decision-making

To encourage a tuakana-teina relationship and an approach guided by *ako*, or reciprocal learning, we run with mixed age groups. Rules are established with the children through Talking Circles. Rules generally have to do with treating each other with respect and caring for the natural world. The limits to rule-making – necessary for any sustainable society – is contained within this Culture of Sustainability document. We encourage rule infractions to be dealt with in an informal manner between those involved, though when necessary, we would hold Peacekeeping Circles to discuss and find a way forward, based on restorative justice. Both the Talking Circles and Peacekeeping Circles promote concepts of democracy, cooperation, empathy, and justice.

Teachers

Rather than the common view of the commanding “teacher” standing at the front of the room and controlling and overseeing all activity, our teachers act as mentors and guides. The school will not view teachers as experts, nor require them to tell students what they should and should not be doing with their time. More important than the teacher's knowledge and accumulation of facts is *who they are, how they relate to students, how they view the world, how they relate to the natural world, and how they live*. Another way of describing the approach of our teachers is through what the renowned psychologist Carl Rogers (1980) called “unconditional positive regard”. This means that the teacher accepts the student for who they are and that the teachers are supportive and loving - unconditionally. The teachers do not withdraw positive regard if a student makes a mistake or acts in an unsettling way. In this way, students feel more confident in taking risks, trying new things and discovering who they are. Rogers (1995) also expresses it this way:

People are just as wonderful as sunsets if you let them be. When I look at a sunset, I don't find myself saying, "Soften the orange a bit on the right hand corner." I don't try to control a sunset. I watch with awe as it unfolds.

This is the same approach the educator Alfie Kohn (2005) describes in his *Unconditional Parenting*. We should not be surprised to learn that this also describes the adult approach with children in those human societies which have been most ecologically sustainable.

At the DGBS we believe that children strive for harmony and goodness, that they are instinctively cooperative, that they are good deep inside and do not wish to harm anyone, especially not intentionally. Thus, they do not have to be forced or corrected or "educated" into becoming a human.

How Skills and Knowledge are Offered

Teachers at the DGBS do not impose skills or knowledge, nor do they impose classes. Rather, teachers at DGBS are *gentle mentors*. They may offer a skill or knowledge, as they deem relevant, and only if students are interested will they continue. Similarly, students may also ask to be shown some skill or ask for certain knowledge, to which teachers will respond. Students will be fully aware of the types of skills and knowledge offered within the Culture of Sustainability, and of course, they may request something new. It is expected that the bulk of learning will be through student initiation, rather than teachers constantly offering. In this way, students develop a sense for their inner nature and to act based on their own intrinsic motivation. As a result, there is no way to determine how much time will be spent by students on a "subject". This is the nature of the way we evolved to learn.

Learning Resources

The Deep Green Bush-School will have relevant tools and equipment for the various practical life and nature-based skills that we will offer. For example, we will have the necessary woodworking tools such as saws, knives, chisels, and so on. We will also have our own library of books, including textbooks for maths and science. Books that we do not have can be requested through Auckland Libraries, through the National Library of New Zealand, or we may purchase the book. We will also aim to build up our inventory of musical instruments, such as guitars, pan flutes and African drums. Computers will be available for the learning requirements of mature students. Other resources will be acquired as needed.

In essence, at the DGBS children will have no less of an opportunity to learn than at a mainstream school; however, they will benefit from a much wider perspective on the world and have access to alternative ways of knowing which are not presented at mainstream schools. Our learning methods will involve no coercion or manipulation be it through rewards, discipline or grades. No competitive behaviour will be employed or encouraged.

A collectivist approach

In one sense, the Deep Green Bush-School draws on the collective knowledge and wisdom of thousands of years of indigenous traditions, in seeking to provide the healthiest environment for our young people.

Similarly, Maori and other indigenous groups have collectivist identities. This outlook is in terms of the well-being of the group (as well as the individual), rather than the extreme Western emphasis on the competitive, autonomous individual. Likewise, the DGBS is aimed at the collective well-being of our youth, whanau and communities. As Martin Luther King, Jr. said, “Injustice anywhere is a threat to justice everywhere.”

At the DGBS the students learn and interact in a collectivist way. They make relevant decisions together, sometimes aiming for consensus, depending on the matter. Furthermore, it is not necessary for everyone to think exactly alike; rather, students (and parents) use a diversity of experiences and outlooks to advance a shared vision.

Weather

Whether cold, wind or rain, the most important way to ensure happy children is to dress them properly. Staff at Forest Schools in the U.K. and Canada report that clothing is the biggest factor in the children's health and happiness.

Forest Schools also report that the attitudes and comments of adults and staff around children also affect how the children perceive and react to the elements. Adults who complain will cause children who complain. The more positive adults and staff, the more positive the reactions of children will be.

Other methods of dealing with the elements and winter:

- Activity and exercise – keeping active
- Plenty of hot drinks and hot soup
- Campfires (In winter we will locate a place where this will be possible)
- Increased use of tents/tipis/yurts and greater rotation between indoor/outdoor

An additional benefit to all-weather play is that it strengthens the immune system. A child who regularly deals with the elements develops a stronger ability to cope with the elements. This is similar to research which finds that children who are exposed to dirt and animals are less likely to develop asthma and allergies. Children grow up not just mentally stronger, but physically stronger.

"Knowledge was inherent in all things. The world was a library and its books were the stones, leaves, grass, brooks and the birds and animals that shared, alike with us, the storms and blessings of the earth. We learn to do what only the student of nature ever learns, and that is to feel beauty. We never rail at the storms, the furious winds, the biting frosts and snows.

To do so intensifies human futility, so whatever comes we should adjust ourselves by more effort and energy if necessary, but without complaint.

Bright days and dark days are both expressions of the Great Mystery, and the Indian reveled in being close the the Great Holiness."

– Chief Luther Standing Bear, Oglala Lakota chief

Food

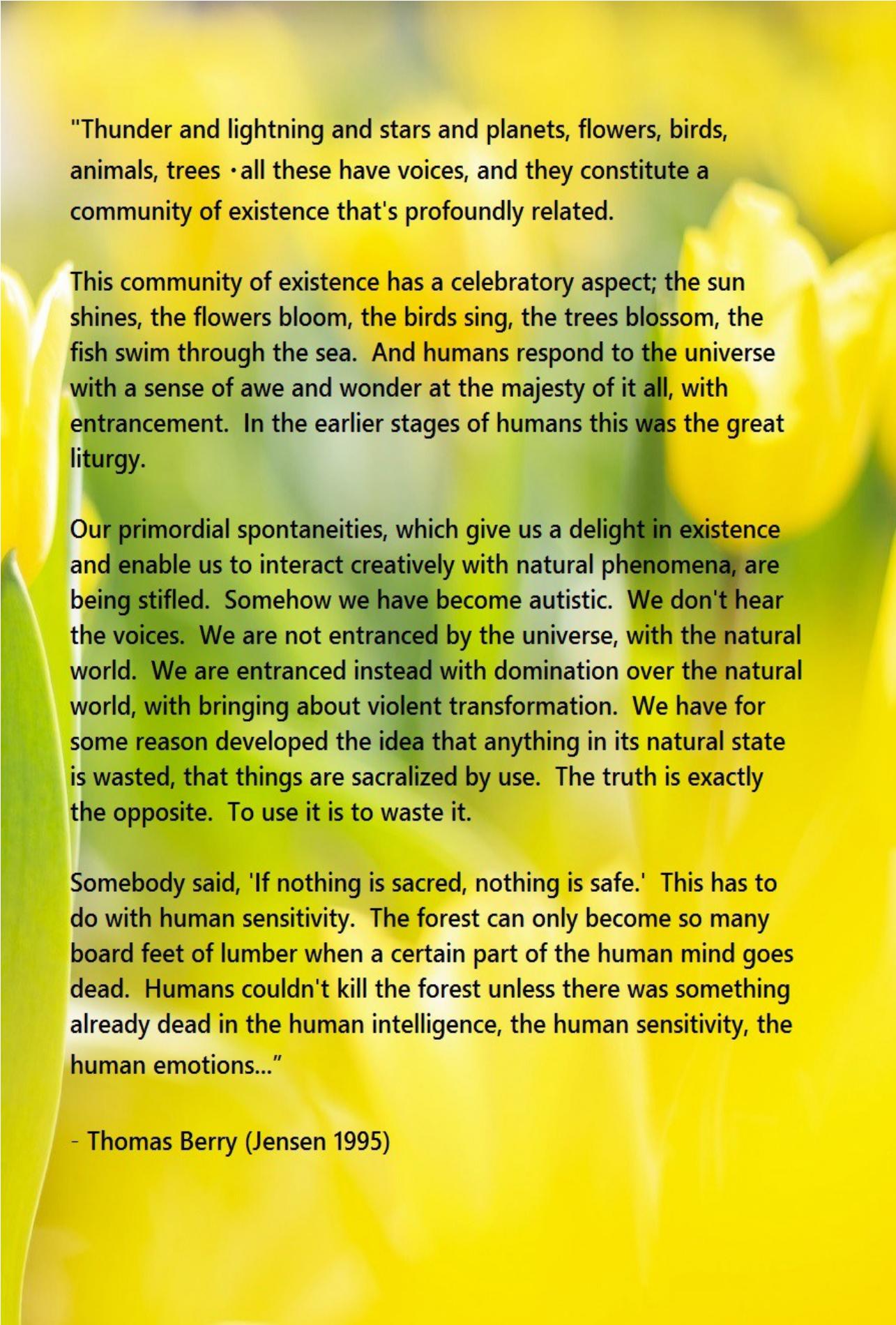
We understand how difficult it can be for parents to prepare food for kids every day while also preparing to go to work. We also recognise that children are fully capable of preparing their own meals, learning the elements of a healthy diet, and that, above all, they would relish the chance to prepare their own food, especially in a communal manner.

At the Deep Green Bush-School, children will be welcome to bring food items from home that would need to be cooked and otherwise prepared. We will have access to various cooking equipment to allow children to learn how to prepare food using various methods.

We also look forward to growing vegetables and integrating our own produce into our lunches. We would further supplement food with what can be foraged, such as greens, nuts, and insects. In time, we look to also add the possibility of fishing and trapping animals such as rabbits.

"The classificatory prowess of indigenous peoples is on a par with that of scientists. As [anthropologist Claude] Levi-Strauss has amply demonstrated, the breadth of indigenous taxonomic knowledge is impressive: a single Seminole informant can identify 250 plant varieties and species, Hopi Indians recognize 350 plants, the Navajo more than 500. The Subanun of the Philippines use more than 1000 botanical terms and the Hanunoo, close to 2000. The diversity and sophistication of plant and animal use also attests to the subtlety of indigenous observations and the capacity to systematize knowledge and know-how."

- Douglas Nakashima and Marie Roue (2002)



"Thunder and lightning and stars and planets, flowers, birds, animals, trees · all these have voices, and they constitute a community of existence that's profoundly related.

This community of existence has a celebratory aspect; the sun shines, the flowers bloom, the birds sing, the trees blossom, the fish swim through the sea. And humans respond to the universe with a sense of awe and wonder at the majesty of it all, with entrancement. In the earlier stages of humans this was the great liturgy.

Our primordial spontaneities, which give us a delight in existence and enable us to interact creatively with natural phenomena, are being stifled. Somehow we have become autistic. We don't hear the voices. We are not entranced by the universe, with the natural world. We are entranced instead with domination over the natural world, with bringing about violent transformation. We have for some reason developed the idea that anything in its natural state is wasted, that things are sacralized by use. The truth is exactly the opposite. To use it is to waste it.

Somebody said, 'If nothing is sacred, nothing is safe.' This has to do with human sensitivity. The forest can only become so many board feet of lumber when a certain part of the human mind goes dead. Humans couldn't kill the forest unless there was something already dead in the human intelligence, the human sensitivity, the human emotions..."

- Thomas Berry (Jensen 1995)

THE CULTURE OF SUSTAINABILITY

**“Wisdom, knowledge in the broadest sense, is always motivated by love.
And love requires the capacity to say no as often as to say yes.
It's defined as much by what it doesn't do and will not do
as by what it does.” - David Orr**

The culture of sustainability promoted by the Deep Green Bush-School is based on how we evolved, how indigenous people have raised their children for tens of thousands of years, and is how the Deep Green Bush-School seeks to encourage learning. It is comprised of two essential ingredients: 1. Freedom for the child; and 2. Adults engaged in sustainable behaviours.

Both ingredients are necessary for learning sustainability. At the Deep Green Bush-School, we are explicit in what is sustainable and the teachers/tuakana model such behaviours as best they can. While the child is free to participate or not participate, the teachers model sustainability in all its forms: the teachers may garden, weave with flax, play games, climb trees, cook organic meals, avoid processed foods, talk through issues and treat everyone and everything in the natural world with respect. Furthermore, we stand up for our principles and seek to connect with others in our community to make the world better. We not only live as healthy and simply as possible, but also try to change the world. It is not enough to work on ourselves (as our individualist society would have us believe); without collective action and community outreach, none of the global problems will ever get better. This is the essence of learning: the Deep Green Bush-School culture.

What anthropology and thousands of years of indigenous learning have demonstrated is that children learn through freedom. They learn largely through observation, imitation and play.

“It's not so much what children learn through play, but what they won't learn if we don't give them the chance to play. Many functional skills like literacy and arithmetic can be learned either through play or through instruction – the issue is the amount of stress on the child.

However, many coping skills like compassion, self-regulation, self-confidence, the habit of active engagement, and the motivation to learn and be literate cannot be instructed. They can only be learned through self-directed experience (i.e. play).”

- Susan J. Oliver

DETAILED OVERVIEW of the CULTURE OF SUSTAINABILITY

With the above in mind, as well as what skills and knowledge will be necessary for a sustainable future, the Deep Green Bush-School offers *a culture of sustainability*, in harmony with the priority of free play in nature, and which is outlined below, for ages 5 to 18. The list is not exhaustive but merely provides a rough picture:

Indigenous wisdom

- myths and legends (story-telling)
- philosophy and mindset – relationship to world
- cyclical, non-numerical concept of time

Indigenous skills & knowledge

- identifying plants (esp. edible, medicinal and uses)
- shelter
- hunting/trapping/snaring for food
- Raranga harakeke (flax weaving)
- Rongoa Maori (traditional Maori medicine)
- Indigenous attitudes toward difficulties

Nature-based skills (overlapping with Indigenous skills)

- Attitudes in the wilderness
- Mindset for survival
- Attitude toward weather
- identifying plants
- identifying and understanding the uses of edible or medicinal plants
- identifying edible insects and other animals
- ecological and biological concepts
- fire-making
- bow and arrow making and use
- hunting methods
- tracking and stalking
- cleaning and butchering an animal
- cordage
- woodworking & carving

- knots
- tree-climbing
- hiking and camping
- building with natural materials

Other practical skills

- Sewing and crochet
- Embroidery
- Budgeting and financial intelligence
- Avoiding debt
- Emergency response: natural disasters, first aid, social crises

Sustainable organic gardening & animal raising

- organic gardening
- chickens, cows, and any other animals available
- permaculture and 'feral permaculture' concepts
- natural farming concepts (ex: Masanobu Fukuoka)

Healthy eating

- cooking and food preparation
- understanding GMOs
- Industrially processed “food”
- Sugar, caffeine, processed fats
- factory-farmed animals vs. free-range
- eating locally-grown & sourced food
- eating according to evolution
- fermentation
- food preservation (smoking, canning, drying)
- vegetarianism vs. the omnivorous diet

Health and Body Knowledge

- natural medicine

- Body awareness: puberty, menstruation, sex
- tai chi
- meditation
- maintaining fitness

Democratic decision-making

- Discussion
- Listening
- When to compromise (via consensus) and when to rely on majority vote
- Other forms of decision-making
- Participation
- Responsibility
- Examples: deciding what to do, deciding on rules

Performing Arts

- Music
- Dance
- Theatre
- Story-telling
- Creative writing

Global Problems

- Poverty and inequality
- War
- Nuclear weapons
- Nuclear power and radiation
- Economic crises
- Climate Change
- Pollution
- Mass extinction

Causes and Real Solutions

- Economic systems
- Sustainable vs. unsustainable levels of energy consumption
- De-growth
- The Precautionary Principle
- Egalitarian social structures
- Sustainability and indigenous societies
- Cooperation vs. competition
- Sharing vs. greed
- Small-scale and local vs. Industrial and global
- Simple-living vs. consumerism

Modern Technology

- Effects: cultural, social, behavioural, physical
- How technologies are made – mining, extraction, production, exploitation, etc.
- Questions to ask about any technology
- Techno-utopianism
- The myths of modern medicine
- Past vs. Present: sustainable technologies and unsustainable technologies
- The benefits of not using (or minimising) modern technologies

Exploring Alternatives

- Natural remedies
- Home-made alternatives
 - to processed food
 - to sunscreen, deodorant, etc.
- Sharing economy
 - tool-sharing
 - car-sharing
- Cooperative living and alternative housing arrangements
- Simplicity vs. consumerism
- Alternatives to money

- Alternatives to industrial mentality/traditions/habits
- Alternatives to Western culture and values
 - anthropocentrism, mechanism, humanism, scientism, all change as progress, linear view of time
 - oral tradition and the printed word
 - hyper-individualism and a collectivist orientation
 - patriarchy and re-discovering the power of the feminine spirit
 - The commons vs. private ownership
- Natural refrigeration
- Solar ovens

Community

- Lunch with grown/foraged vegetables – help cook and clean
- Gardening, helping and looking after chickens or any animals
- Using and appreciating public spaces (including special trips)
- Community projects and outreach
- Celebrations of life and festivals
- Learning from knowledgeable community members

'Subjects' as labelled in mainstream schools

- English, maths, science: When child is ready and asks, child is supported
- As relevant to other elements of the curriculum
- Example: science concepts in relation to natural world (i.e. biology and ecology)
- Example: maths as needed in horticulture, measuring, etc.
- Example: English as needed to reading about all of the above

METHODS

Here is a brief list of the key methods used by the DGBS:

- **Free play** – As described above, the child determines how to spend their time, in accord with how humans evolved to learn.
- **Child-initiated learning** – The student's intrinsic motivation is nurtured so that when they are interested in something then they pursue it and the DGBS teachers are their

to support them.

- **Gentle mentoring** – Our teachers do not tell students what to do, but use their judgement and knowledge of the student to offer a skill, knowledge or wisdom in a non-coercive manner.
- **Nature immersion** – As described above, time in nature is critical for the healthy development and maturation of children.
- **Informal discussion, conversation and stories** – This is one of the most underrated and ignored ways in which children learn. When students are in a comfortable environment, they readily engage adults in conversation as a way of discovering the world.
- **Public library books and school library books** – In addition to the DGBS library, students will be free to request books from the Auckland Library system to support their learning.
- **Knowledgeable and wise community members** - Many of our community members have knowledge and wisdom which they would love to share with children, and we will invite them to support our students' learning.
- **Ties to the community** – Students will be encouraged to pay attention to their community and involve themselves in community activities that suit their interests.
- **Collective decision-making** – As described above, this is part of our democratic decision-making.
- **Freedom to participate** – In line with our free play approach, students may join in with activities as they choose, without pressure.
- **No tests, no classes and no homework** – Students at the DGBS may explore the world and discover their own path without the pressure and added stresses of tests or homework. (They may request to be tested or be given homework, to which we will support them.)
- **Adult-initiated games and activities** – Teachers may suggest games or activities, but the students decide whether they want to join in or not.
- **Adult-offered practical skills** – Teachers may suggest a practical skill if they deem it relevant, but the students decide whether they want to participate.
- **Extension when requested by the child** – Our teachers encourage students to discuss their learning and their interests, and thus to let our teachers know when they would like support in being challenged and extended.

"It is becoming increasingly clear through research on the brain, as well as in many other areas of study, that childhoods need play.

Play acts as a forward feed mechanism into courageous, creative, rigorous thinking in adulthood."

- Tina Bruce

WESTERN SCIENCE AND OTHER WAYS OF KNOWING

Since the modern world is so thoroughly dependent and addicted to modern technologies – and to its underlying ideology, Western science – it would be useful to take a closer look at Western science, especially within the context of two million years of human history and the history of much older - and sustainable - ways of knowing. This is crucial, since the Deep Green Bush-School will be teaching Western science within the healthier context of deep ecology, wisdom and other ways of knowing.

The vast differences and resulting consequences between Western science and other ways of knowing are often overlooked, and usually dismissed, as Western science is assumed to be far superior to any other ways of knowing, which are usually described as “superstition” and “primitive” - and our consumerist personalities now assume that any culture which cannot manufacture bombs, hair dryers and cell phones is clearly inferior. Among these other ways of knowing is what is referred to as Indigenous Science, and sometimes *traditional ecological knowledge* (TEK).

The first crucial point is to recognise that indigenous people have been just as rational – and irrational – as Western people. After all, if we were so much more rational, then why is it that we have destroyed most of the natural world and are content with a world in which every living thing can be extinguished by the press of a button? It would be dubious to claim that we are more rational than humans from other cultures and other times.

In fact, the *reasoning* behind Western science and Indigenous science is actually quite similar and should not be ignored. (Cajete 2000, Michie 2001) For example, the impressive use of scientific reasoning can be seen in the skills involved in tracking animals. Louis Liebenberg (1990), in *The Art of Tracking: The Origin of Science*, demonstrates just how “scientific” is the reasoning involved in tracking:

Speculative Tracking involves the creation of a working hypothesis on the basis of initial interpretation of signs, a knowledge of animal behavior and a knowledge of the terrain. Having built a hypothetical reconstruction of the animal's activities in their mind, the trackers then look for signs where they expect to find them.

Another impressive list of accomplishments is provided by Snively and Corsiglia (2000):

In the Americas, traditional scientists developed food plants that feed some three-fifths of humanity. They also developed thousands of varieties of potatoes, grain, oilseed, squashes, and hot peppers, as well as corn, pumpkins, sunflowers, and beans. They first discovered the use of rubber, vulcanizing, and also platinum metallurgy. Meso-American mathematicians and astronomers used base 20 numeracy to calculate calendars more accurate than those used by Europeans at the time of contact, even after the Gregorian correction. Native Americans developed highly articulated and effective approaches to grassland management and salmon production. Traditional Native American healers discovered and used quinine, Aspirin, and ipecac (a drug still used in traumatic medicine to expel stomach contents), as well as some 500 other

important drugs. In the Americas alone, traditional knowledge and wisdom systems sustained populations estimated at approximately 100 million, one-fifth of the world's population at the times of contact in 1492. Even today, most people do not realize that we are benefiting from the labors of Aboriginal scientists and doctors almost every time we dress, dine, travel, or visit our physicians. Suggestions that indigenous peoples cannot practice "science" turn upon narrow and restrictive definitions, old justifications of harsh expansionism, or insufficient factual data.

Thus, despite our cultural biases towards hunter-gatherers, their capacity for scientific reasoning has been just as strong as ours. (Cajete 2000, Christie 1993, Snively and Corsiglia 2000) The primary difference then, between Western science and indigenous science is in the underlying assumptions. To the indigenous, **the world is alive and humans are related – as family – to all other living things, including mountains, rocks, clouds, and water. Indigenous are guided by empathy, humility and oneness.** To Western science, the world is made up of dead matter and it is there to be used for human purposes. (Berman 1981, Cajete 2000, Deloria 2000, Leiss 1994, Livingston 1994, Merchant 1990, Rodgers 2016, Skolimowski 1983) Humans are superior to all other life forms. The guiding principle in Western science is control, and this is achieved through quantification.

If one questions this characterisation of Western science, we need only look at the words of the "father" of the scientific method, Sir Francis Bacon, who said 500 years ago, "I am come in very truth leading you to Nature with all her children to bind her to your service and make her your slave" and "nature takes orders from man and works under his authority". Rene Descartes, to whom we can thank for many of our Western assumptions, wrote in 1637 that the aim of science was to "make ourselves masters and possessors of nature." (Berman 1981) Look at the present day, and one of the most popular science authors, Richard Dawkins, writes, "Science boosts its claim to truth by its spectacular ability to make matter and energy jump through hoops on command..." Thus, there is no living in harmony with the natural world in Western science, no humility, no empathy and no oneness, since humans are superior and nature exists for us to dominate. In fact, one of the most egregious mistakes a scientist can make is to legitimise their own feelings, their instincts or, even worse, to view the natural world as family, which would get the accusation of "anthropomorphism".

Our Science has propelled an immense productivity in scientific knowledge precisely because it does not consider the universe alive; it proceeds at a meteoric pace, because it need never ask permission of a dead universe, it need never pause in its breakneck progress. Because of this, it will also never know certain things, and actually will perpetuate a blindness of other relationships. The Scientific process actually acts as a ceremony that further inculcates the worldview of a dead universe. (Larsen 2006)

The result of this mindset is the destruction of the natural world and the creation of an endless supply of nightmarish weapons. The result of this mindset is zoos, circuses, genetic engineering, fracking, nanotechnology and millions of animals tortured in laboratories. Or, as Theodore Roszak (1999) observes, "In four centuries of taking wealth and comfort from

the body of the Earth, modern science has not troubled to produce a single rite or ritual, not even a minor prayer, that asks pardon or gives thanks. But then what sense would it make to ask anything of a dead body?"

Peter Michael Bauer draws some helpful conclusions:

It means that most likely, the knowledge forcefully stolen from nature by civilization's scientists will be *useless as a hunter-gatherer-horticulturalist*. And further, that information taken (not received) without humility and empathy will in fact have *deadly results in the real world*. (Bauer 2007)

The reason for this is that science is not situated within a healthy framework. Or as conservation biologist Reed Noss explains, "Science is not complete, of course. It has to be complemented by an ethic. That's the major point. In an ethical vacuum, science is incredibly dangerous." (quoted in Jensen 1995) Dr. Seyyed Hossein Nasr has spent a lifetime writing about the need to re-affirm the sacred aspect of the world and of the limitations of Western science:

...although science is legitimate in itself, the role and function of science and its application have become illegitimate and even dangerous because of the lack of a higher form of knowledge into which science could be integrated and the destruction of the sacred and spiritual value of nature...

The knowledge of the whole Universe does not lie within the competence of science but of metaphysics. Moreover, the principles of metaphysics remain independent of the sciences and cannot in any way be disproved by them. One must realize the different forms of knowledge and place each within its own bounds. (Nasr 1967)

This is what we mean when we say that students at the Deep Green Bush School would learn Western science within the context of a healthy mindset. We will nurture students who honour the Earth and all living creatures, including the mountains, rocks, rivers and oceans. **We will nurture the sense that we are kin to everything in existence. This kind of mindset is necessary to serve as the healthy guidelines – the limitations – of any science that is practised.** For without these limitations, anything – such as nuclear weapons – is possible.

We will continue with Nasr's thoughts because they are so eloquently stated:

Many labour under the illusion that only war is evil and that if only it could be averted man could go on peacefully to create paradise on earth. What is forgotten is that in both the state of war and peace man is waging an incessant war upon nature. The official state of war is no more than an occasional outburst of an activity that goes on all the time within the souls of men, in human society, and towards nature. It is no more than a chimerical dream to expect to have peace based upon a state of intense war toward nature and disequilibrium with the cosmic environment. It is only the complete ignorance of what man's relation to nature means that could allow such views to be entertained...

Perhaps the answer to the burning question of how to avoid war and also of how to preserve human dignity in face of the threat of total war, lies in coming to peace with nature. But the development of this peaceful accord depends in turn upon the rediscovery of the spiritual significance of nature...

In the end what we can say with all certainty is that there is no peace possible among men unless there is peace and harmony with nature. And in order to have peace and harmony with nature one must be in harmony and equilibrium with Heaven, and ultimately with the Source and Origin of all things. (Nasr 1967)

The implications of this way of thinking for a healthy education can be seen in Jack Forbes' description of indigenous education:

It is not primarily the acquisition of specific skills or factual knowledge. Rather it is learning how to be a human being. That is, how to live a life of the utmost spiritual quality. A person who has developed his character to its highest degree, and who is on that path, will also be able to master specific skills. But if they don't have that spiritual core, they will use those skills to hurt other people...So knowledge without the spiritual core is a very dangerous thing. (Reagan 2000)

Reagan expresses the indigenous orientation towards the world which can be our guide for how to relate to each other and to everything in existence:

So everything is like a big family. We are children of the Great Spirit, children of Mother Earth, children of the sky, and so on. We have that relationship, that kinship that is part of our identity. That is knowing who we are...we live in a world of many circles and these circles constitute our identity and they go out to encompass every thing that there is in this Universe. That is our kinship. Those are our relatives. The Universe is a family and we have to deal with other things in that Universe with that in mind.

Johanna Lambert describes it this way:

Presently, we have reduced our commonality with animals to the theory of our superiority through evolution. In contrast, the Aborigine's relationship to animals and nature is one of communion, kinship, and a sense of belonging. Though our society has obliterated this memory, the animals, even today, remember, and they wait patiently for the shadows of rationality and brutality cast across our minds and spirits to dissolve. (Lambert and Parker 1993)

The key idea is that this is completely possible, for this way of viewing the world has not been strictly an indigenous perspective, as European cultures before Western science arose had similar elements:

The view of nature which predominated in the West down to the eve of the Scientific Revolution was that of an enchanted world. Rocks, trees, rivers, and clouds were all seen as wondrous, alive, and human beings felt at home in this environment. The

cosmos, in short, was a place of *belonging*. (Berman 1981, emphasis in original)

Perhaps most important, is the fact that **the way Western Science is taught and understood today ignores much of the new scientific understanding of the world.** Today's notion of Western science is still rooted in reductionist, Cartesian/dualist and mechanistic thinking, which is in complete contradiction to the very foundation of quantum physics, chaos theory and complexity theory. As Carolyn Merchant explains:

Chaos and complexity theory suggest that we can no longer assume that we can predict, therefore control, and therefore dominate, nature. The domination of nature is predicated on the ability to solve linear differential equations and predict the outcome; that means we can then control nature in small, closed systems.

What chaos and complexity theory are suggesting is that only in unusual cases--where, say, we're building a bridge or using closed mechanical systems--can we solve problems and control nature. Chaos theory says that we can't predict and can't control most of the domain out there, and therefore we can't dominate it, and therefore we have to give up the ethic of mechanistic science that led to the death of nature.
(Schoch 2002)

Not only are these more recent scientific fields ignored, but alternate explanations to taken-for-granted scientific theories are also ignored. For example, no student is ever taught that the same evidence with which we readily accept Darwin's Victorian Age reduction of all animal behaviour to "competition" can just as easily be interpreted to see animals expressing compliance, deference and cooperation. (Livingston 1994) Another example is the complete ignoring of Edwin Land's explanation of light which, unlike the Newtonian explanation we take for granted, recognises that the observer is inseparable from the light being observed. This has enormous implications for the way we participate with the world. (Berman 1981) The important idea is that these explanations are in greater accord with the fundamental principles of ecology; that is, that everything is connected and everything affects everything else. There is no such thing as "objective" science.

One way of approaching the world around us, and including Western science, is through learning to recognise patterns and being conscious of our relationships with everything in the universe. Gregory Bateson (2002), in his *Mind and Nature*, begins with these questions: "What pattern connects the crab to the lobster and the orchid to the primrose and all four of them to me? And me to you?... What is the pattern which connects all the living creatures?" This emphasis on recognising the patterns of nature are also a fundamental principle in permaculture. (Mollison 1988)

Thus, our aim is both to convey to students the full modern understanding of Western Science and also to put Western science in a healthy context – that is, within the context of viewing the world with enchantment, oneness and a sense of belonging – a context that is, oddly enough, in accord with quantum physics, chaos theory and complexity theory. Children raised in this way will live healthy, happy and sustainable truly lives. That is our aim at the Deep Green Bush-School.



"Reverential thinking is exactly what it means to be — thinking infused with reverence. Its underlying assumption is reverence for life, reverence for all living beings, for all living systems. Reverential thinking is the foundation of right ecological thinking if and when the latter attempts to be truly life enhancing — enhancing to all forms of life and not only some at the expense of others.

Thinking reverentially is not only using our grey cells in a new way. It is also embarking on a new set of values. When American Indians thought and maintained that there is a spirit behind every tree, they did not mean to say that there is a ghost-like apparition roaming around the tree. This was their way of expressing the fact that, for them, all living things have intrinsic value. This form of value and this form of reverence are acknowledged in the Orient in another way: there is a Buddha in every blade of grass. To think reverentially is first of all to recognize human life as an intrinsic value; it is to recognize love as an essential and indispensable modality of human existence; it is to recognize creative thinking as an inherent part of human nature; it is to recognize joy as an integral part of our daily living; it is to recognize the brotherhood of all beings as the basis of our new epistemological paradigm. Reverential thinking is a vehicle for the restoration of intrinsic values, without which we cannot have a meaningful future of any sort."

- Henryk Skolimowski (1995)

LOOKING TO THE FUTURE: CAREER PATHWAYS

We at the DGBS are focused on the future and we desire our children to grow up to be part of a truly sustainable world. Of course, nearly all parents and concerned adults are focused on the future as well, and will rightly ask, “What will my child *do* when they finish the Deep Green Bush-School?” - just as they would ask this question of any school. The difference is, with our emphasis on free play, wisdom and practical, nature-based skills, parents may not see how our approach will benefit children after their school years.

There are multiple parts to our answer. First, is that there are current socio-economic conditions in New Zealand and the world which make this question unanswerable for *any school*. In other words, it would be difficult for any school to claim to know what students will do after school when we consider that:

- Technology is ending jobs and replacing workers
- Unemployment is growing – globally
- University degrees are losing value

Other relevant factors we will then consider are:

- The role of money
- The skills and qualities employers look for
- The role of work
- The skills and qualities students will develop at the Deep Green Bush-School
- Climate change and the ever-intensifying ecological crisis

What we will show is that given all the uncertainty, the best way to prepare children is through the qualities, values and skills we nurture in our youth. This will give us a strong clue as to what our children will be doing when they finish at the Deep Green Bush-School – and it will give us the confidence that our youth will know how to make their way in the world.

Technology and the Workforce

While schools are preparing students for a working world which exists today, there is no way of knowing whether many of the existing jobs will still exist when our children leave school. Jeremy Rifkin (1997) writes that, “In all three key employment sectors - agriculture, manufacturing, and services, machines are quickly replacing human labour and promise an economy of near automated production by the mid-decades of the twenty-first century.” One recent study predicts that 47 percent of all jobs are likely to be replaced by technology within the next twenty years. (Torres 2015) An assessment in the United States predicts that technology will replace the jobs of 100 million people – out of a workforce of 146 million. (Davidow and Malone 2014) This is not simply an “unintended consequence” of technology – it has been the desired aim of employers since the dawn of the Industrial Revolution and continues today, as corporate executives move to replace workers with robots. (Hernandez 2015, Sale 1996) For example, the CEO of Foxconn, the world's largest

contract manufacturer, recently declared, “We have over one million workers. In the future we will add one million robotic workers.” (Davidow and Malone 2014) And if we think robots will “only” threaten agriculture, services and manufacturing, we are wrong – they will replace the jobs of professionals as well – and are currently being developed to do just that. (Ford 2015) As Barbara Ehrenreich (2015), in her review of Ford’s book, writes:

Tasks that would seem to require a distinctively human capacity for nuance are increasingly assigned to algorithms, like the ones currently being introduced to grade essays on college exams. Particularly terrifying to me, computer programs can now write clear, publishable articles, and, as Ford reports, Wired magazine quotes an expert’s prediction that within about a decade 90 percent of news articles will be computer-generated...there should be no doubt that technology is advancing in the direction of *full unemployment*. (emphasis added)

Our aim at the DGBS is to prepare our students for a world in which many jobs they are aware of now will not exist and in which jobs are becoming increasingly scarce. Above all, in order to live happy lives they will need resilience, creativity, critical thinking, solidarity with other people, and knowing how to live simply.

Rising Unemployment and Insecure Jobs

While the rising use of technology to replace workers is only part of the picture, the state of the world's employment condition is characterised by unemployment, underemployment and vulnerable (insecure) employment. One recent estimate is that globally, there are *2.4 billion* unemployed and vulnerably employed people. (Dolack 2016) In the United States, it has been found that nearly *all* recent job growth has been in “alternative work arrangements” - i.e. insecure work – and that 40 percent of all workers in the U.S. are in “alternative work arrangements”, while the number of conventional, full-time jobs has plummeted by 400,000 in the last ten years. (Whitney 2016) In Japan, nearly 40 percent of workers are also in insecure work. And to anyone paying attention to the Old World, conditions in Europe are even worse – and worsening. (Smith 2014)

In New Zealand, it is estimated that *between 30 percent and 50 percent of all workers are in insecure work*, with no usual work time and no written employment agreement. (New Zealand Council of Trade Unions 2013) The New Zealand Council of Trade Unions describes the effects this has on workers:

Insecure work, for most people, means their lives are dominated by work: waiting for it, looking for it, worrying when they don’t have it. They often don’t have paid holidays – which can mean no holidays at all. They lose out on family time. They often don’t have sick leave. They are vulnerable if they try to assert their rights or raise any concerns. They are exposed to dangerous working conditions and have to accept low wages. They can’t make commitments...this is not the kind of working life most Kiwi’s want.

This is in no small way related to the fact that poverty in New Zealand is growing at three times the OECD average. (Brennan-Tupara 2012) This is important to consider when we ask, “What will our child do after school?” At the DGBS, we will prepare our students for an economic world that is increasingly precarious, so that they will be the *least reliant* on an ever-more unstable job market. This will come through resilience, knowing how to live simply, being able to connect with other people, knowing alternatives to consumerism, and knowing how to meet their needs in a sustainable way by looking to the natural world.

The Value of University Degrees

It has long been touted that a university degree is a ticket to financial success. While university degree-holders have generally earned more money than non-degree holders, this ignores the fact that growing numbers of degree-holders are now struggling and unable to find employment, as one would guess from the above unemployment figures. In addition to technology and global economic conditions, another factor behind this trend is *academic inflation*, also known as *degree inflation*. Or, as one observer comments, “If everyone holds the same competitive advantage, it’s not a competitive advantage. If everyone has a bachelor’s degree to distinguish them in the job market, it’s not a distinction.” (Boldt 2013) University degrees have become so common that they’ve lost value – and even Masters Degrees and PhDs have also become less valuable – since more and more people have them. One result is that employers can be more picky – and jobs which previously never required a degree now do (Rampell 2013).

But since the cost of a university degree has skyrocketed in the last twenty years, and as student debt has skyrocketed, going after a university degree has become a risky proposition. (Ashley 2012) Since there are fewer jobs and degrees have lost value, graduates are increasingly likely to be stuck in low-wage jobs, part-time jobs and jobs which don’t require a degree – nearly half of all graduates find themselves in this position. (Covert 2014) And while living costs continue to rise, median wages have declined or remained unchanged in four of the top five employers of young people – further exacerbating the problem. (Allison and Muggleton 2014) We should not be surprised, then, that poverty among students and “millenials” has been dramatically increasing. (Fang 2013, Olsen 2015) In other words, our youth are paying more for degrees that have less value and then finding themselves stuck in debt and only able to find low-paying jobs.

The surest sign that university degrees are losing value is that *an increasing number of employers do not even require degrees*. Recently, the international publisher Penguin Random House and the consulting firms of Ernst & Young and PricewaterhouseCoopers have all dropped the requirement of a university degree from the application process. (Burke 2016) Ernst & Young's internal research “found no evidence to conclude that previous success in higher education correlated with future success in subsequent professional qualifications undertaken.” (Havergal 2015) Laszlo Block, Google's senior vice president of people operations, has stated that good grades are “worthless as a criteria for hiring” and that they’re “less concerned about grades and transcripts and more interested in how you think.” (Lam 2015)

Ultimately, while we at the Deep Green Bush-School will support students if their aim is to get a university degree, we will also support them in seeing the bigger picture, and thinking deeply, so that their decision is not taken lightly.

The Role of Money

With the global economic situation unstable and precarious, it is crucial that our youth learn how to make intelligent decisions when it comes to money. Of course, our children will need to earn some money – but the degree to which our society is obsessed with the acquisition of wealth is extreme. The DGBS will help to put money into a healthy perspective.

Thus, our guiding question is, *how much* money is necessary to live well? Research on the matter generally find that once basic needs are met, that *money does not increase happiness*. (Easterlin 1974, 2010) Or, as Henry David Thoreau put it, “Money is not required to buy one necessary of the soul.” (Alexander 2009) So the next question is, how much money is necessary to meet basic needs? And what we find is that we can meet our basic material needs of food, shelter, and clothing with very little money. (Alexander 2009, 2011; Elgin 1977, 1993) The only reason we do not believe it possible is that the mass media, in tandem with various institutions, have indoctrinated people to *want more* and to feel insecure and inadequate unless they *buy things*. An additional reason to question the consumerist mindset is that it is precisely that consumerist lifestyle that is destroying every human and non-human community on the planet.

In other words, the DGBS will nurture within students the ability to be happy by living simply. This will reduce their reliance on consumerism, reduce their reliance on money and therefore reduce the compulsion to become trapped in jobs that allow little time for actual living. We want our students to be able to *live*.

We want our students, once they grow up, to have ample time for friends, family, community and the natural world - which have nothing to do with money and everything to do with relationships. Through free play in nature in mixed-age groups, our students will learn how to participate in healthy relationships. They will learn how to develop healthy relationships by spending their days without stress. And they will learn how to develop healthy relationships through being given the opportunity to make decisions and take chances, with support and guidance from supportive adults.

The result will be a new generation of adults who can live simply and live happily.

What Employers are Looking For

We understand that some of our students may aim for a certain career or profession, as they're commonly understood now. We will support them in developing the same skills and qualities that all our students will have – and this will make them most attractive to any

employers.

What kinds of skills and qualities are employers most after? Generally, they are these:

- Being able to communicate verbally
- Being able to work well with others
- Being well-organised
- Being self-motivated
- Being creative
- Being able to make decisions (i.e. confidence)
- Being flexible
- Being able to think critically

(Adams 2014, Davies 2009)

These are qualities which are more likely to develop in certain conditions. At the Deep Green Bush-School, students are able to practice verbal communication all day long, as they freely play and talk with students of all ages, as well as adults. Through mixed-age free play they learn how to work with others. Because they are not being told what to do, they are allowed to develop their intrinsic motivation. If they feel strongly enough to do something, they develop the ability to plan, organise and implement. Free play nurtures creativity. Free play *in nature* nurtures confidence and flexibility. And our Culture of Sustainability will help them develop critical thinking skills.

The Role of Work

How big a role should 'work' play in our children's lives? Since the jobs in our society were not created for human happiness and well-being, and since these jobs are part of the industrial machine which is destroying life on the planet, it is worth taking a closer look.

To begin with, most students and parents, when asked about the importance of education, rarely talk about aims such as "making the world a better place"; rather, the standard reply is, "to get a job". Getting a job, or "going to work", has become all-important. It is how we have been led to define our lives. It is how we identify ourselves. It is how we establish ourselves within society. Yet these jobs that we choose from are not from choices of our own making, nor are they in accord with our evolutionary past; instead, these jobs – the way we define our lives – are created by corporations, in the service of increasing their profits. (Bakan 2005) Jobs have nothing to do with our health, happiness or well-being. Nor do jobs have anything to do with living in a truly sustainable way, as the current state of the world makes perfectly clear. Jobs and economic indicators such as GDP generally reflect the violent taking of the natural world and its "conversion" into products for human consumption.

We can also put work in perspective by looking at what children have to say. Alana Massey (2015) comments:

When we ask children what they want to be when they grow up, they often don't tell us professions at all. I personally wanted to be my sister but with a mermaid's tail. My childhood best friend legendarily reported a desire to be a stove in a wall... I have yet to hear a child report their dream of becoming a marketing associate, an account executive, a general manager, or any other vacuous title given to the three quarters of the US labor force employed in professional, managerial, clerical, sales, and service work.

In other words, most jobs are not what any child would ever dream of doing. Yet during the process of growing up, they are forced to choose from the limited options – few of which any adult will ever find meaning in or derive satisfaction from. Why then do we continue to live this way?

One reason is the “work ethic” which is instilled in each of us from when we are very young and makes us expect that life is “hard work”. However, the “work ethic” was a creation of European leaders 500 years ago, and contradicts how humans evolved during the last two million years and, of course, contradicts how the vast majority of humans would actually want to live. Humans evolved to live lives of leisure and play, not to spend eight hours a day doing jobs that have nothing to do with making the world a better place and have nothing to do with making people happier and healthier. Rather than our young people being raised to feel guilty or inadequate because they don't work 40-50 hours a week or because they don't earn \$100,000 or more a year, our youth deserve to feel good about themselves because they are living in harmony with the highest values we generally talk about, such as integrity, honesty, sustainability, empathy, altruism, cooperation and justice.

In fact, whether a high-paid job or a low-paid job, the job market is characterised by excessive working hours:

Thirty years ago, the best-paid workers in the U.S. were much less likely to work long days than low-paid workers were. By 2006, the best paid were twice as likely to work long hours as the poorly paid, and the trend seems to be accelerating. A 2008 Harvard Business School survey of a thousand professionals found that ninety-four per cent worked fifty hours or more a week, and almost half worked in excess of sixty-five hours a week. Overwork has become a credential of prosperity.
(Surowiecki 2014)

In essence, our children, if they are driven by the “work ethic” and the desire to accumulate monetary wealth, will likely waste their lives.

Another consideration is the impact of university – professional training – on our youth, besides putting them into enormous debt. As Jeff Schmidt (2001), in *Disciplined Minds*, observes:

The outlook of students completing professional training programs is markedly different from that of students entering them...The student beginning professional

training is usually highly optimistic about the opportunity for an intellectually rewarding and socially beneficial career...Students finishing the ordeal of professional training often appear to be pressured and troubled, as if under some sort of unrelenting duress whose source they can't pinpoint. Anyone who has been around a university graduate department or other professional school has undoubtedly seen many such students. These students end up doing much of their work while in a state of physical and mental fatigue, precluding the creativity and enjoyment that were once their priority. They are no longer the upbeat students who entered the professional training program. Students who were adamant in not wanting to become cogs in the machine, students who would join the system only on their own terms, students who stood solidly behind their own goals for society – many of these students now have a tired, defeated look about them, and an outlook to match. Many are now quite willing to incorporate themselves into one or another hierarchy, and to put up no resistance there, overt or covert, as they help do the work that furthers their new employers' goals.

In other words, pushing our children into the “professional world” often compels them to spend their youthful years in a stressed environment in which their own desires are beaten out of them, in favour of corporate needs. As Schmidt concludes, “When the professional training system does not malfunction, it selects and produces people who are comfortable surrendering political control over their work, people who are not deeply troubled by the status quo and are willing and able to do work that supports it.”

Once the world of employment is seen clearly, many of our students will want to minimise the role of work in their lives and minimise their reliance on money. It goes without saying that most people are not made happier by their jobs, so we owe it to our kids to keep their reliance on “jobs” to a minimum. Part of this is achieved through an emphasis on living simply and living in harmony with the natural world. Another big part is avoiding debt – since once a person is in debt, they become locked in a prison of living to pay off that debt, and they will have neither the time nor the energy to help heal the world. Other alternative paths may include cooperative living arrangements and community gardens. DGBS students, with their creativity, social skills and critical thinking skills intact, will be able to imagine and follow other alternative paths.

Some additional emphasis on these points are necessary. Both the anthropological record and indigenous cultures demonstrate that humans are not inherently lazy; rather, humans are motivated to engage in activities which are *meaningful*. Additionally, we never evolved to do the kind of jobs we're doing and for so many hours each day. The “work ethic”, therefore, can be seen as a cultural artifact used to convince people of the need to sacrifice their blood, sweat and the majority of their days for the industrial machine. Anthropologist David Graeber (2013) explains the underlying motivation behind the perpetuation of the “work ethic”:

The ruling class has figured out that a happy and productive population with free time on their hands is a mortal danger... And, on the other hand, the feeling that work is a moral value in itself, and that anyone not willing to submit themselves to some

kind of intense work discipline for most of their waking hours deserves nothing, is extraordinarily convenient for them.

On the other hand, we at the DGBS endeavour to guide students to seek out meaningful activities – activities which contribute to both their own health and happiness, and also the health, happiness and well-being of the whole world.

JoAnne Swanson (2004) elaborates:

Heretic or not, I'd like to see us re-define success as having more to do with people and their values, and less to do with profits or climbing the corporate ladder. I'd like to see a world where we are less relentlessly *driven* by the pursuit of job growth, impressive stock portfolios, the "bottom line" and material acquisition--and more motivated by active mindful learning, *joyful* work, and creating a web of relationships that will sustain us in our more meager times. I'm holding out for a new way of thinking, one in which we recognize that leisure is essential to our mental health rather than cause for guilt, and that we don't have to spend our lives struggling, striving to make ends meet through working at a job.

I think we all know, at some level, that we weren't meant to live this way, and that there are better, more fulfilling, and more socially responsible ways to work than by sacrificing ourselves on the altar of jobs and money.

The notion of health is critical here. Our modern lives, devoted to work and “being productive” are characterised by stress, burnout, mental illness and the myriad ways people seek to recover, distract themselves or numb themselves from their working lives. When people spend eight hours indoors for stockholders' benefits, then sit in a car for two hours of commuting, and then sit in front of a screen to recover, this is not the sign of a healthy life. Again, we never evolved to live this way, and many of the symptoms and diseases we are so aware of simply never existed before – they are a result of this industrial life.

Similarly, if it is creativity we value, then stress-free lives and ample leisure time are the perfect way to promote creativity. If it is critical thinking skills we value, then stress-free lives and ample leisure time are the way to promote it. If it is healthy social interactions, then stress-free lives and ample leisure time will promote it. And if it is the natural world we value, then it is living in a way which does not contribute to its destruction which will strengthen the natural world.

We should also be wary of promises that technology will improve our condition. Corporations and industrialists have been promising increased leisure time for the last hundred years, yet people are working harder and harder. It's just part of the sales pitch for more technology in our lives. People work so many hours and so many hours of each day are either at work, going to and from work, or recovering from work, that the modern working person is more a drone than a human. No child should be raised for that kind of life. It's time we remember our heritage of living life fully, being connected with the people around us and connected with the natural world.

To be clear, the role of the DGBS is to raise young people who will be able to live healthy and happy lives and who will live in a way which considers the impact on the rest of the world and on future generations. This is the essence of being a “global citizen” and ecological sustainability. There are many paths to a well-lived life. We will nurture wisdom, simplicity and interconnectedness with all living creatures, since this is the path towards well-being.

“Why is the work ethic venerated, even when that hard work may be only self-serving, or worse, may be generating tremendous harm?

What’s the use of being constantly ‘busy’ if your busyness is not useful (and may be destructive)?

Why do we not consider the direct and indirect ways our occupations – and the organizations from which we earn money and power – exploit other species, other humans, and the environment as a whole? What might happen if we were all to do so?

Why do we equate wealth – rather than empathy or altruism – with intelligence and success?”

– Kristine Mattis (Mattis 2016)



“Most humans, including teenagers, crave the chance to do real work – something that makes a difference in the world – instead of just sitting and taking notes all day.”

- Grace Llewellyn (1998)

The Deep Green Bush-School student and graduate

So what will one of our students look like? What will a graduate of our school look like? Imagine this child or teenager who is given freedom in nature every weekday. In playing freely with others she learns how to communicate her thoughts and feelings. She learns that certain positive qualities – such as integrity and fairness - increase the likelihood of other children wanting to play with her. She also learns how to identify anti-social behaviour in other kids and how to settle conflicts calmly, fairly and peacefully.

In playing out in nature, she is sure to get scrapes, get cut, trip and fall – but each time, she gets back up and keeps going. She learns that life has its painful moments, but that they are usually brief. She learns to be resilient. Since she is active every day, her body is in peak physical condition. She breathes fresh air each and every day. She learns how to make healthy, simple food. For example, in winter, she looks forward to filling her bowl from the big pot of simmering bone broth soup and sitting in front of the camp fire with her friends. She may even add some foraged greens into the soup.

Given her freedom, the student reads on subjects that interest her. She learns how to find more information on these topics. Since she is free to speak, she asks questions. She discusses her ideas with the teachers, other adults and with other kids. In exploring her world, she is bound to ask even more questions. And in this way, she discovers how everything in the universe is interconnected.

Sometimes she may choose to participate in certain adult-offered skills and activities, such as those which encourage paying close attention to the natural world. All it takes is for her to participate once and then something is awakened in her. The more time she spends out in nature, the more she becomes comfortable in nature. In fact, the more she comes to identify the natural world as a friendly, nurturing community and see it as her extended family.

It is highly probable that she quickly favours the peace and vitality of the bush to the urban environment – and from here she will begin to explore the reasons why people live in cities and she will begin to discover the vast ecological destruction underway. Since she sees nature as her family, she will care. She will be passionate. She will read and ask questions and discuss the current state of the world. She will ask, “Why?” She will learn history and pre-history, she will learn about cultures around the world and she will learn about the country she lives in and the way things are done. She will be confronted with more and more statistics and numbers, and she will become comfortable with relevant mathematical skills. She will continue to develop her thinking and ask more questions. And from there she will begin to explore solutions. She will use the same creativity that she applied to playing each day – but now she will apply it to solving the world's problems.

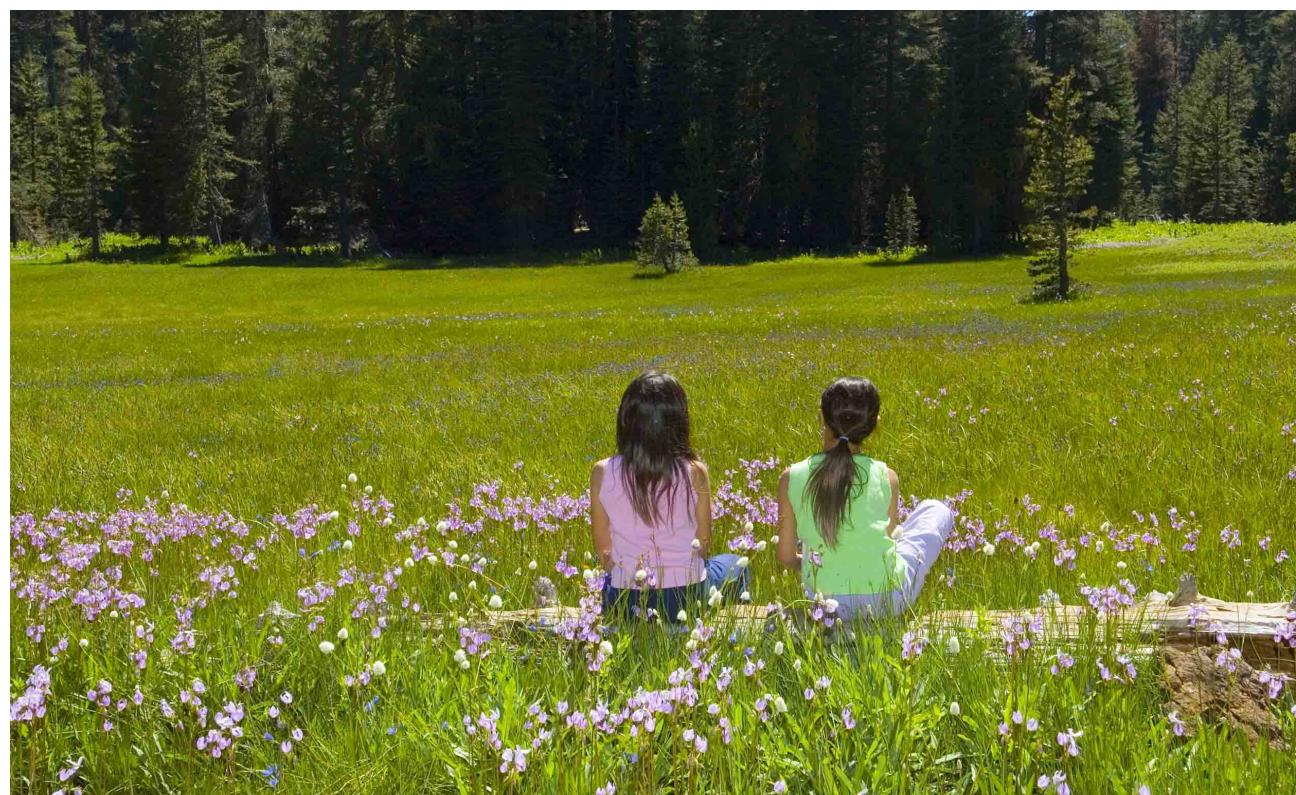
As she develops through her teenage years, she will pay more and more attention to the larger world. She'll start to contemplate this concept called money. This will lead her to think about jobs, careers and university degrees. She'll learn about the local and global economy. The wisdom of nature, in addition to mentoring teachers, will nurture a tendency towards simplicity, empathy and humility.

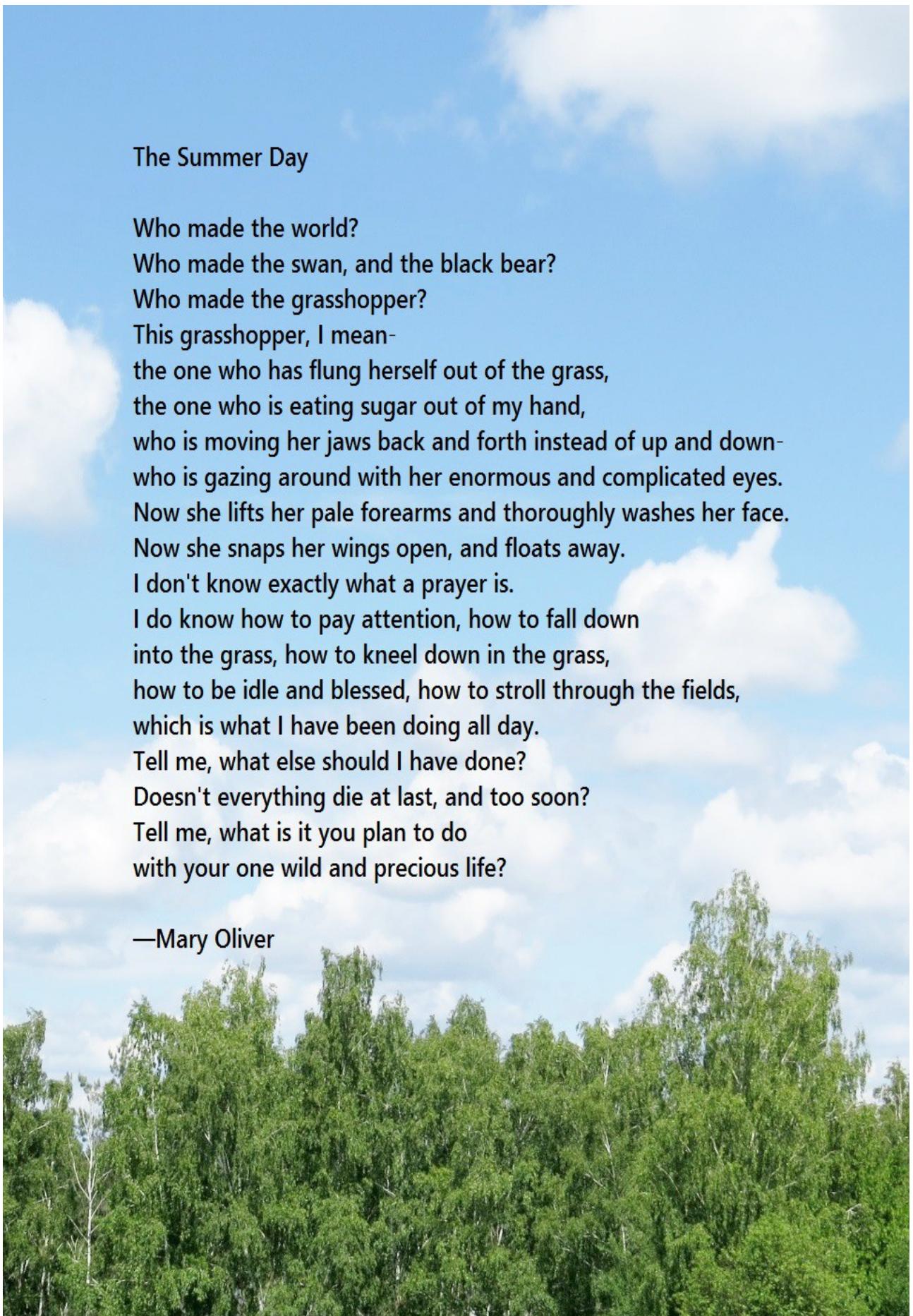
If she chooses to go to university, she will find that the qualifications necessary to be accepted are easy enough, but not very rewarding. She may think about waiting two more years, when she won't need high school qualifications to be accepted into university. Perhaps she'll consider the worsening job market and the prospect of student debt. She'll use her creativity to imagine a different path. Her sense of justice and her love for the natural world will lead her to seriously consider how she will spend her time. Her social skills and connections to others may lead her to consider collective action – where she and her friends use their creativity and diverse skills towards meeting their needs *and* helping to heal the world.

Be forewarned: she may use her creativity, imagination and critical thinking in ways which parents have never considered, or in ways which make them uncomfortable. But rest assured, she will be guided by empathy, compassion, justice and a deep connection with the natural world. She may be angry at the state of the world, and even at the past generations who caused it or did nothing about it, but she will be grateful for her parents' courage and trust in sending her to this bush-school.

Since she will not be pressured, she will be able to consider all options as she looks at the world. She will be able to think deeply about her life. She will be able to sit among the trees and ask them for advice. She may ask the tui and ruru for advice. She may ask the dolphins.

One thing is certain: her brothers and sisters of the forest and oceans will only give her good advice.





The Summer Day

Who made the world?
Who made the swan, and the black bear?
Who made the grasshopper?
This grasshopper, I mean-
the one who has flung herself out of the grass,
the one who is eating sugar out of my hand,
who is moving her jaws back and forth instead of up and down-
who is gazing around with her enormous and complicated eyes.
Now she lifts her pale forearms and thoroughly washes her face.
Now she snaps her wings open, and floats away.
I don't know exactly what a prayer is.
I do know how to pay attention, how to fall down
into the grass, how to kneel down in the grass,
how to be idle and blessed, how to stroll through the fields,
which is what I have been doing all day.
Tell me, what else should I have done?
Doesn't everything die at last, and too soon?
Tell me, what is it you plan to do
with your one wild and precious life?

—Mary Oliver

Climate Change, the Nuclear Industry and the Intensifying Ecological Crisis

No discussion of our children's future and "what they will do" would be complete without considering the destruction that is being spread across the globe and the consequences that our children will have to face. First of all, the reality of Climate Change is supported by 98 percent of climate scientists and the facts are alarming:

- January 2016 was the hottest month in recorded history. Then February 2016 became the hottest in recorded history (McCauley 2016) followed by March (Germanos 2016) – and then April 2016 became the hottest month in recorded history. (Buncombe 2016)
- Each day, between 100 and 200 species go extinct, as humans are now causing the Earth's sixth mass extinction event (Chivian 2011)
- Climate change threatens more than 25% of all species on land with extinction (Chivian 2011)
- One-third or more of all amphibians are now threatened with extinction (Chivian 2011)
- The Great Barrier Reef is dying at unprecedented rates and may become "functionally extinct" within fifteen years (Kampmark 2016, Rowell 2016)
- Currently more than 90 percent of the Great Barrier Reef is suffering from coral bleaching due to Climate Change (Prupis 2016)

The Arctic, which is warming more than any other part of the Earth, is releasing more and more methane from its melting permafrost. Methane is an even more powerful – yet often ignored – greenhouse gas. Methane plumes have already been discovered in the warming oceans and melting permafrost. Dr. Peter Gleick, director of the Pacific Institute of California, recently warned, "What is happening in the Arctic now is unprecedented and possibly catastrophic." (Hunziker 2016) In fact, climate scientists, not known for being anything but calm and rational, are increasingly frightened by their own research. Kevin Anderson of the Tyndall Center for Climate Change Research recently said, "So far we simply have not been prepared to accept the revolutionary implications of our own findings, and even when we do we are reluctant to voice such thoughts openly... many are ultimately choosing to censor their own research." (Hunziker 2016)

Climate Change will have vast and immense consequences. A recent study predicts civilisation collapse within thirty years due to the food shortages that Climate Change will cause: "The results show that based on plausible climate trends, and a total failure to change course, the global food supply system would face catastrophic losses, and an unprecedented epidemic of food riots...In this scenario, global society essentially collapses as food production falls permanently short of consumption." (Jamail 2016)

Ocean acidification – caused as the oceans absorb carbon from the atmosphere – threatens nearly all sea life, including salmon, shellfish and most ominously, plankton. Plankton is the basis of nearly all life in the ocean (often referred to as a "food chain") and is responsible for producing half of the world's oxygen. Yet, according to a recent study, plankton will be threatened by Climate Change. As the study's lead author remarked, "I try

not to be an alarmist...But I was actually quite shocked by the results. The fact that there are so many different possible changes, that different phytoplankton respond differently, means there might be some quite traumatic changes." (Chu 2015)

And let us not think that because we live in New Zealand that we will not be severely affected. The new Royal Society of New Zealand report warns that without action New Zealand will suffer from increasing droughts, more wildfires, severe flooding, shortages of drinking water, extinction of endemic plants and animals, and collapse of sea life due to ocean acidification - on top of overfishing, pollution and habitat destruction. (Royal Society of New Zealand 2016) In fact, sea level rise around New Zealand is expected to be above the global average.

Debate and denial of whether Climate Change "is real" has been funded and supported by the fossil fuel industry and the mass media for over fifty years and has had remarkable success, along with the general modern tendency to believe in 'progress'. But let's do a quick thought experiment: even if scientists were "somehow wrong" about Climate Change, the fact remains that all the current human industries and activities that are said to cause Climate Change *are also* destroying life across the planet through pollution, deforestation, habitat destruction and the decimation of human communities everywhere. For example, we can just take a quick look at our behaviour in the oceans:

- All seafood fisheries are expected to collapse at current fishing rates by 2050 ("Science" 2006)
- 29 percent of fisheries are now in collapse ("State" 2007)
- More than 75 percent of commercial fisheries are depleted, recovering, fully exploited or over-exploited (FAO 2010)
- 90 percent of all "big fish" - tuna, marlin, and swordfish - are gone ("State" 2007)
- 100 million sharks are killed each year and 25 percent of sharks and rays are threatened with extinction (IUCN 2009; McGrath 2013)

And finally, the world is under as great a threat from nuclear radiation and nuclear war than at anytime in history. The amount of radiation released at Chernobyl and the amount of radiation released in Fukushima – and still being released – actually pale in comparison to the amount of radiation released through nuclear atmospheric testing last century. And while the mass media may not report on it, nuclear power plants are regularly experiencing accidents and releasing radiation. But by far the biggest threat is the world's increasing arsenal of nuclear weapons and the belief by many military and government officials that a "limited nuclear strike" is a viable tactic. We live each and every day with the fate of all life on the planet resting on the press of a button – by people who have dedicated their lives to a system predicated on destruction and death. This is the world we are handing over to our children, and we have precious little time to demonstrate to them that it is unacceptable.

So the question is, which of our young people will work towards ending this ecological catastrophe that also threatens human existence? It is likely that the only ones to work towards healing the natural world are those that care about it. And our children will only

care about it if they are given the chance to form a deep connection with the natural world while they are young. This is our aim at the Deep Green Bush-School. We want children who will fight for an ecologically healthy world and we know that the most important way to achieve this is to simply allow them to connect deeply with our animal and plant brothers and sisters. Or, as Theodore Roszak (2001) notes, “The Earth’s cry for rescue from the punishing weight of the industrial system we have created is our own cry for a scale and quality of life that will free each of us to become the complete person that we were meant to be.” Author Edward Abbey writes that

the love of wilderness is more than a hunger for what is always beyond reach; it is also an expression of loyalty to the earth, the earth which bore us and sustains us, the only paradise we shall ever know, the only paradise we ever need, if only we had the eyes to see.

Educator Matt Hern (2013) has this advice for our youth:

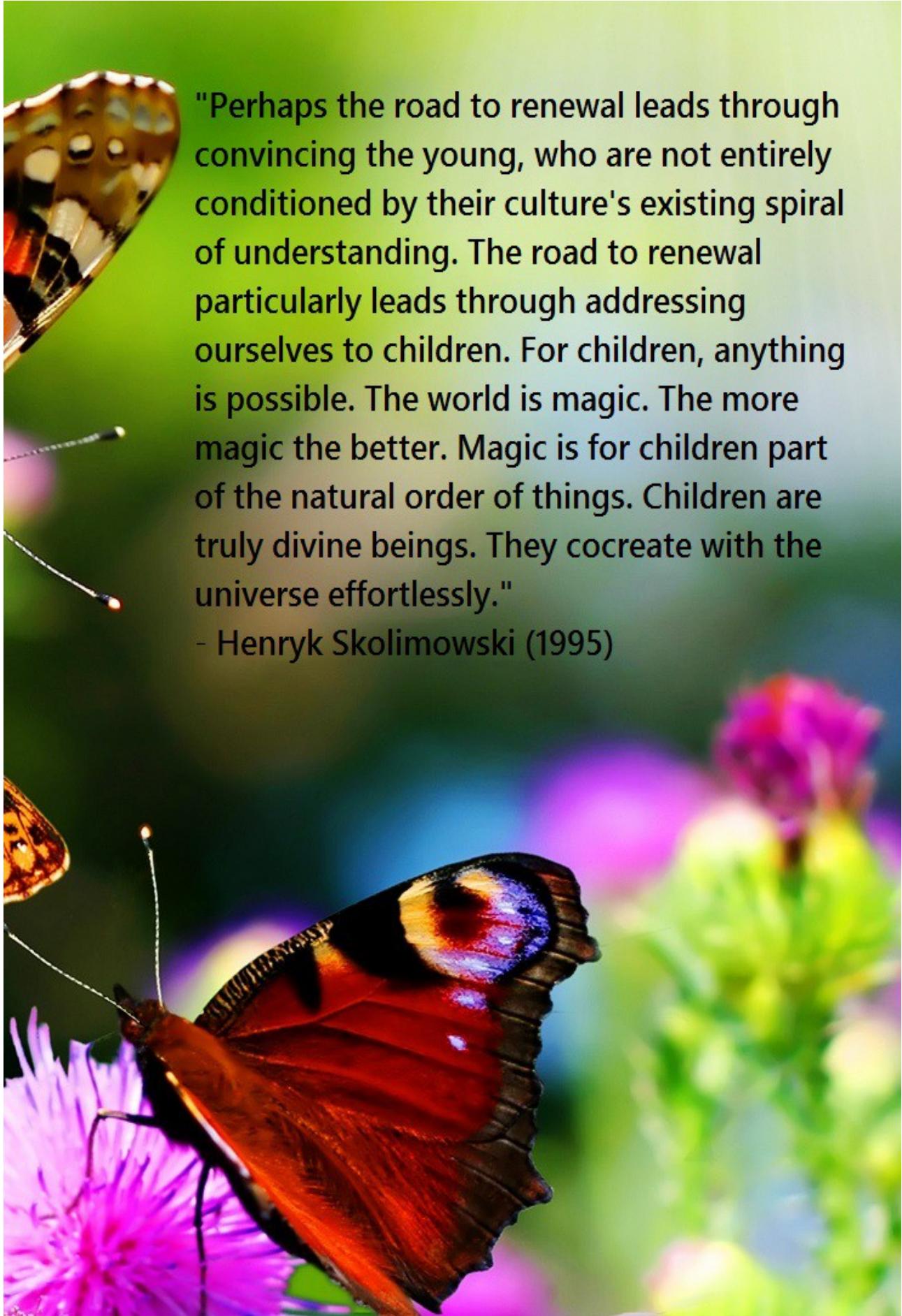
The key here is to think hard on what “success” means. Your personal success has to be tied to the success of people around you, your community, and your dreams for a better world. Your success is no success at all if it is built on the backs of other people or is degrading the natural world. But have no fears: it is very possible to have a good life if you can learn to live cheaply, be flexible, are willing to work hard and are rigorous in thinking about what real success is. There is an endless supply of good work to be done in the world.

Finally, primatologist and anthropologist Jane Goodall expresses the DGBS philosophy well:

You cannot get through a single day without having an impact on the world around you. What you do makes a difference, and you have to decide what kind of difference you want to make.

Please take note that it is not our intention to bombard children with these overwhelming facts and figures regarding the state of the world. Rather, we are here to provide them the opportunity to establish a deep connection with the natural world so that when they are ready, they will take it upon themselves to ask the relevant questions. We at the DGBS understand all too well that the child is harmed by “pushing”, especially abstract concepts, and that the far more lasting and healthy approach is to nurture the child until they seek and invite knowledge.

The wonderful thing is that, given our approach at the Deep Green Bush-School, it is highly likely that our students will be the ones who are resilient enough, confident enough, knowledgeable enough, wise enough, social enough – and complete enough – to do what it takes to help heal the Earth – when they are ready.



"Perhaps the road to renewal leads through convincing the young, who are not entirely conditioned by their culture's existing spiral of understanding. The road to renewal particularly leads through addressing ourselves to children. For children, anything is possible. The world is magic. The more magic the better. Magic is for children part of the natural order of things. Children are truly divine beings. They cocreate with the universe effortlessly."

- Henryk Skolimowski (1995)

CONCLUSION

Students who attend the Deep Green Bush-School will certainly learn English, maths and science skills – but, students will learn these subjects and skills within the context of how to live healthy and sustainable lives. Within this context, students will develop the skills, qualities and knowledge which will allow them to fully contribute to helping to heal the world and realise a truly sustainable society. By providing them with the necessary healthy *foundation* that comes only through free play in nature immersed within a culture of sustainability, then **when they are ready they will make the move to learn those important skills *within the context of living in and creating a better world*.**

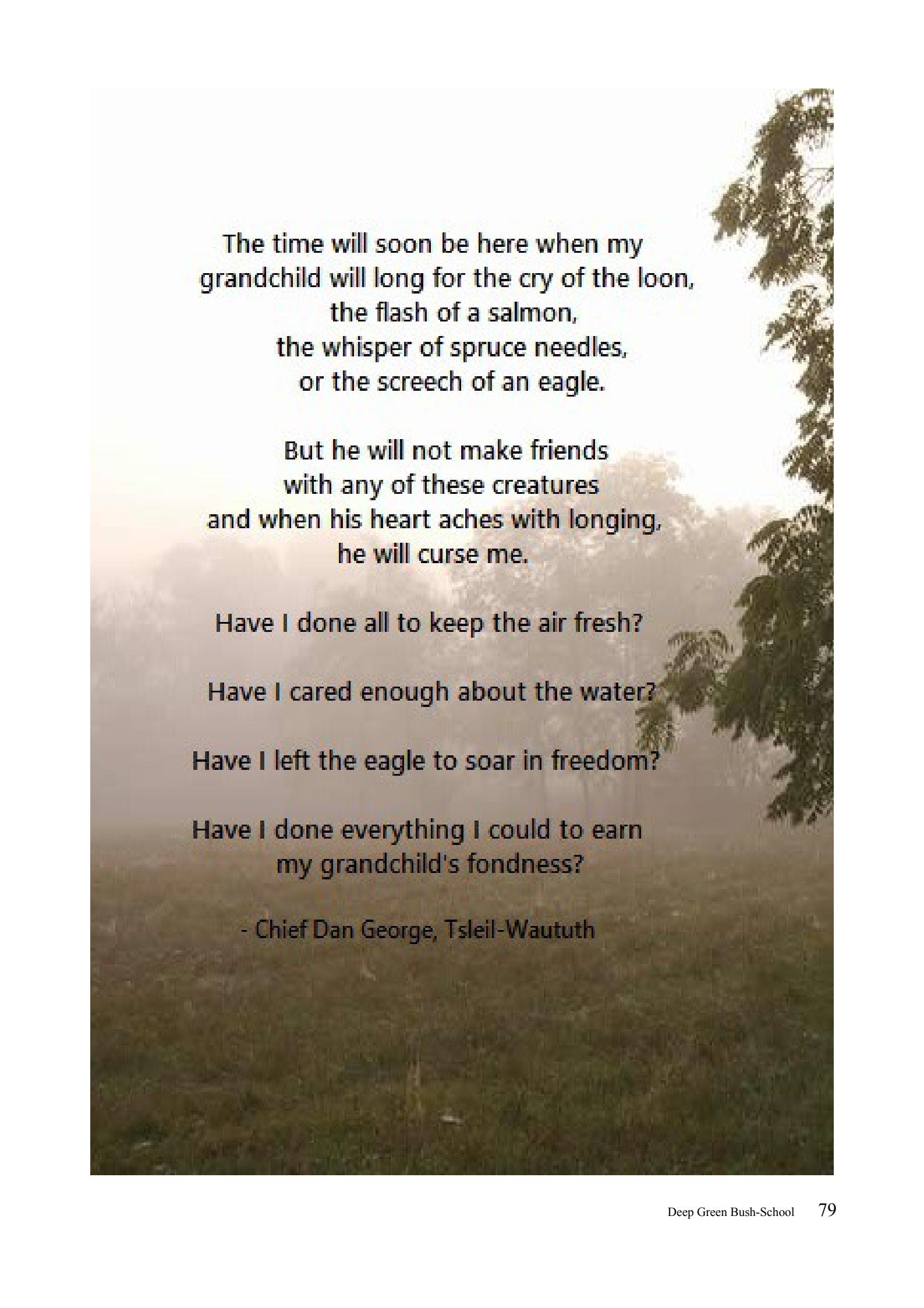
We cannot continue to raise children in the same habitual way and expect a healthy world to magically arise. No matter what we've done in the past, the crucial notion is to move in a healthy direction.

The Deep Green Bush-School, by providing children with free play in nature immersed within a culture of sustainability, gives them the foundation from which they will be able to take the bold steps necessary to make the world a better place. **It is only from a deep connection with nature and healthy socialization that healthy adults are possible.**

In sum, the key to raising our children in such a way so that they do not destroy the natural world as previous generations have done is to raise them so that they can live in harmony with the natural world. And the only way to raise children so that they will live in harmony with the natural world is to give them free play in nature for the bulk of their childhoods so that they are able to develop deep connections with nature. This is what two million years of human history have demonstrated. Free play in nature is the fundamental requirement for a healthy foundation necessary for a healthy life.

There comes a point when we must realise that to continue “business as usual” while expecting a different result is irrational and insane. So if we are ready to take the bold step toward a healthy and happy future, then that begins by casting aside pathological habits, remembering long-ignored wisdom and knowledge, and collectively creating a culture of sustainability.

This is the essence of the Deep Green Bush-School.



The time will soon be here when my
grandchild will long for the cry of the loon,
the flash of a salmon,
the whisper of spruce needles,
or the screech of an eagle.

But he will not make friends
with any of these creatures
and when his heart aches with longing,
he will curse me.

Have I done all to keep the air fresh?

Have I cared enough about the water?

Have I left the eagle to soar in freedom?

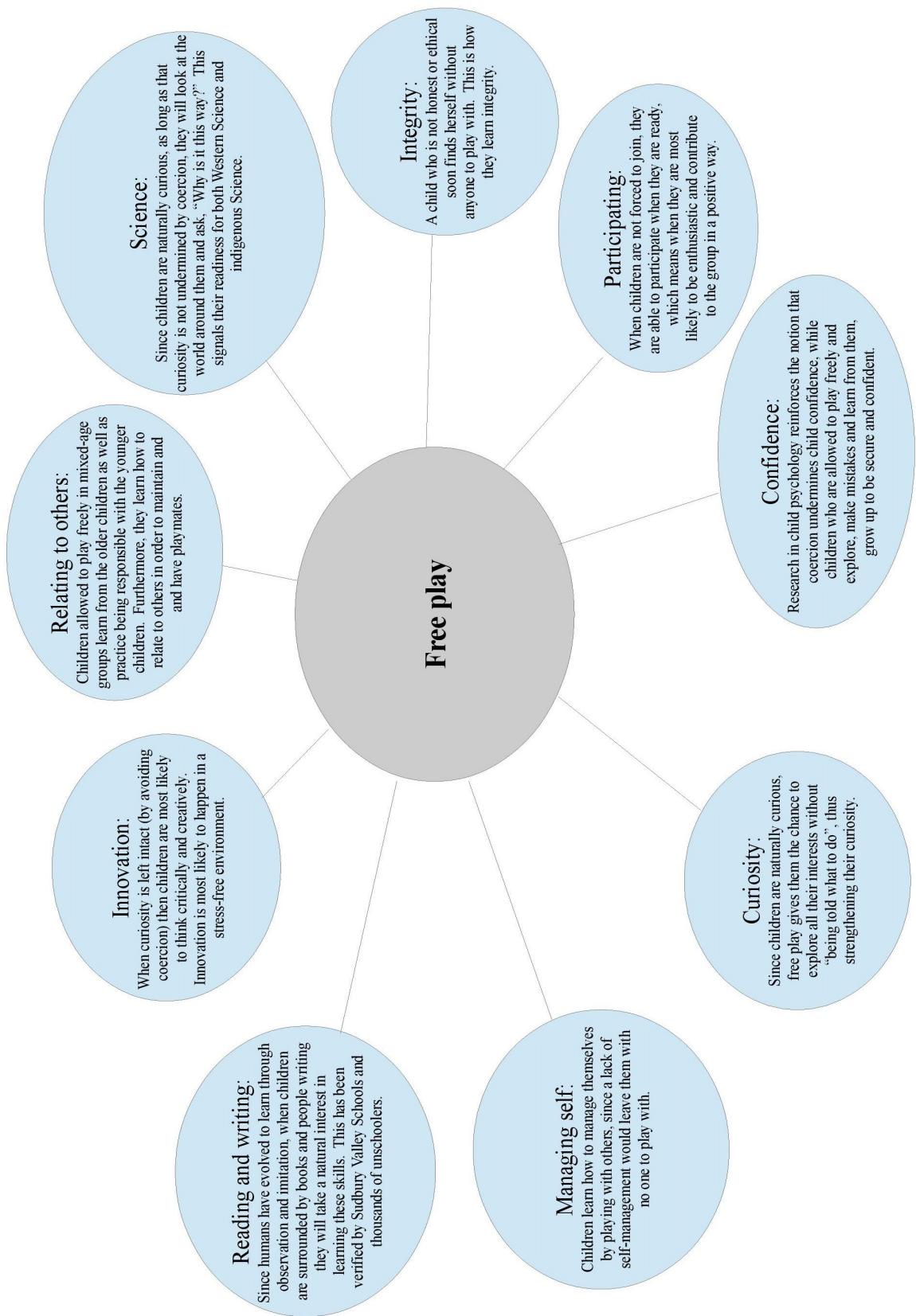
Have I done everything I could to earn
my grandchild's fondness?

- Chief Dan George, Tsleil-Waututh

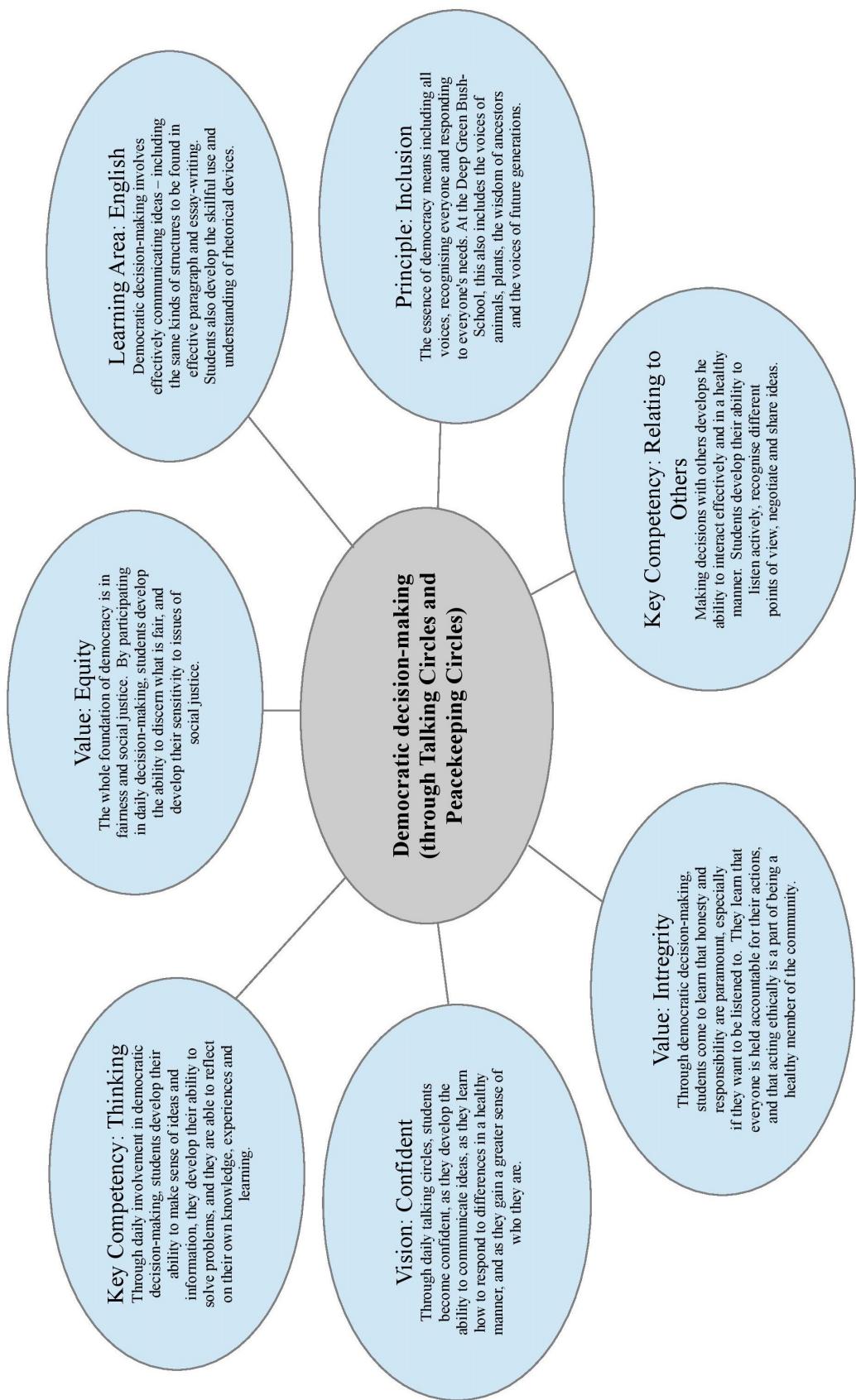
APPENDIX:
Mind Maps – How the Deep Green Bush-School
Supports the NZ Curriculum

Free Play
Democratic Decision-Making
Tech-Free Learning
Organic Permaculture
Exploring Climate Change
Identifying Plants

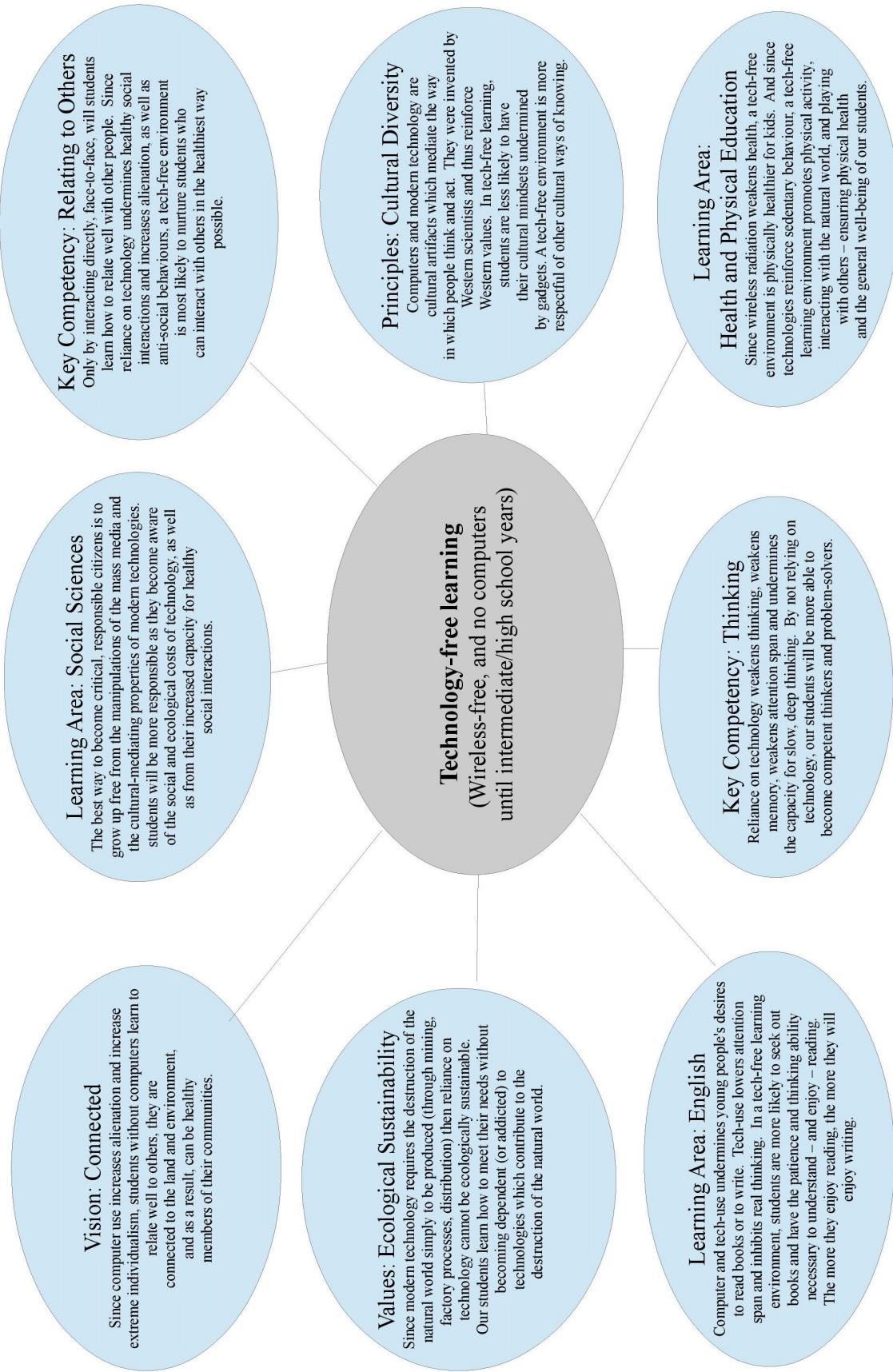
How the method of *free play* supports the NZ Curriculum: a few examples



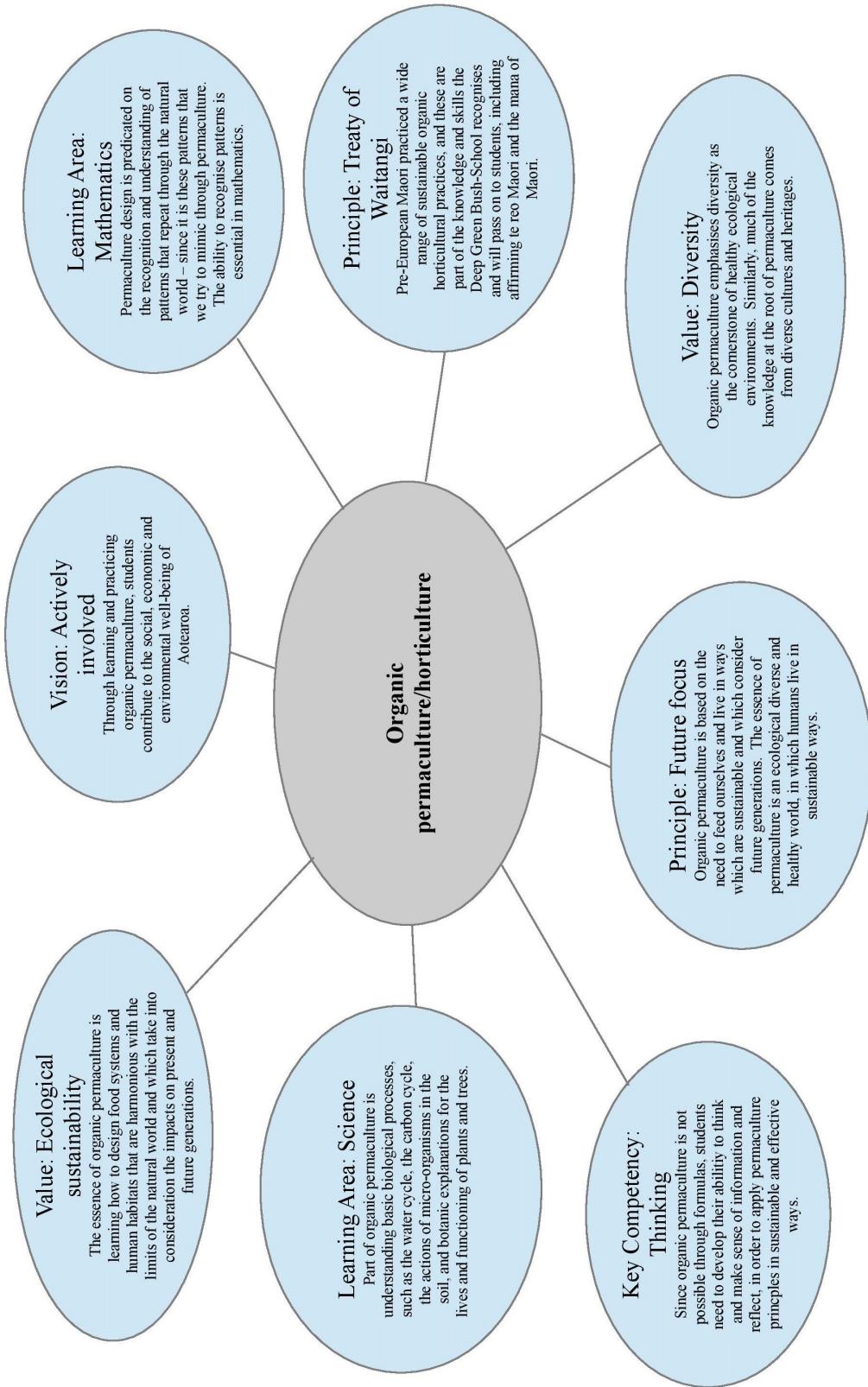
How *democratic decision-making* supports the NZ Curriculum: a few examples



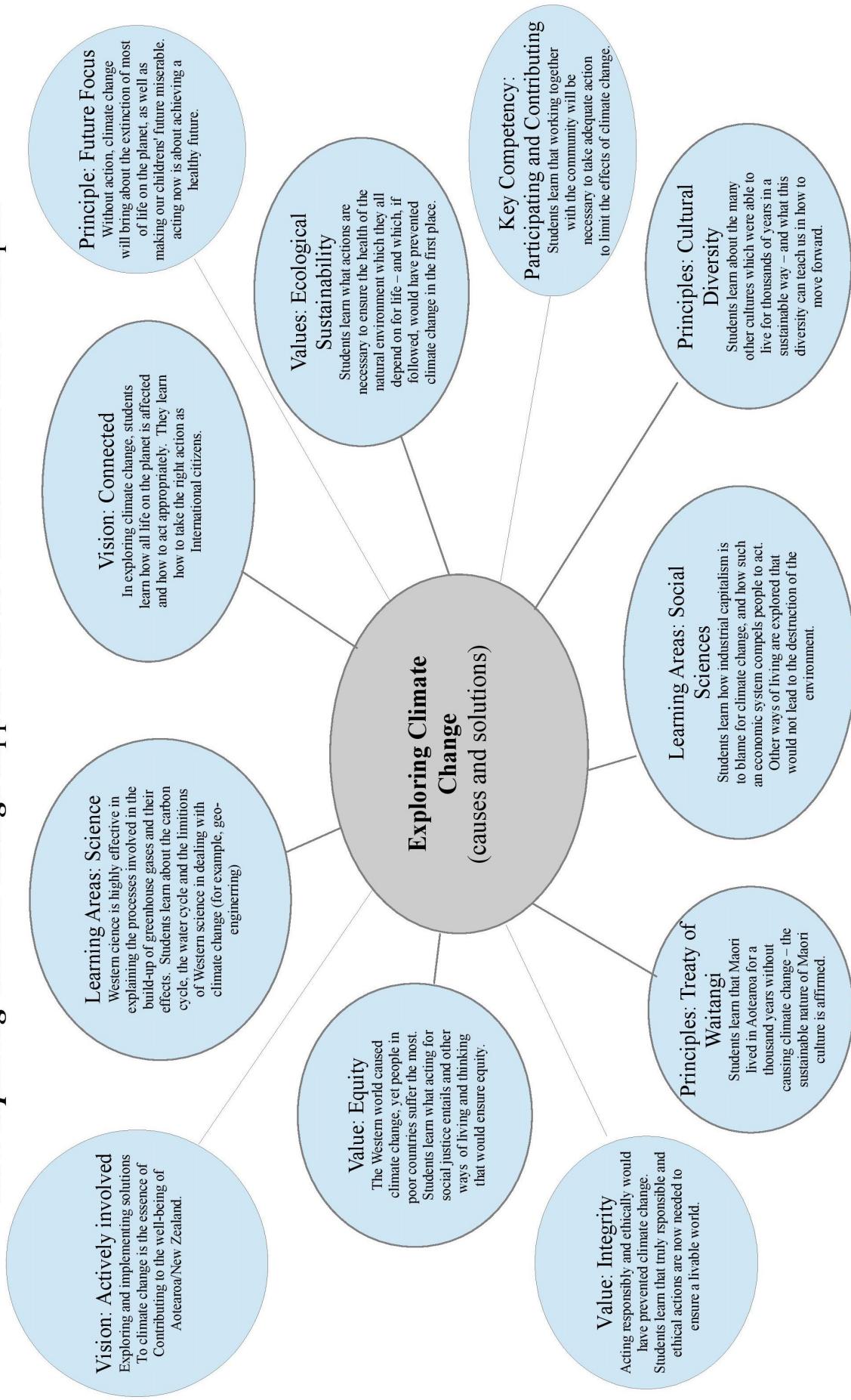
How **technology-free learning** supports the NZ Curriculum: a few examples



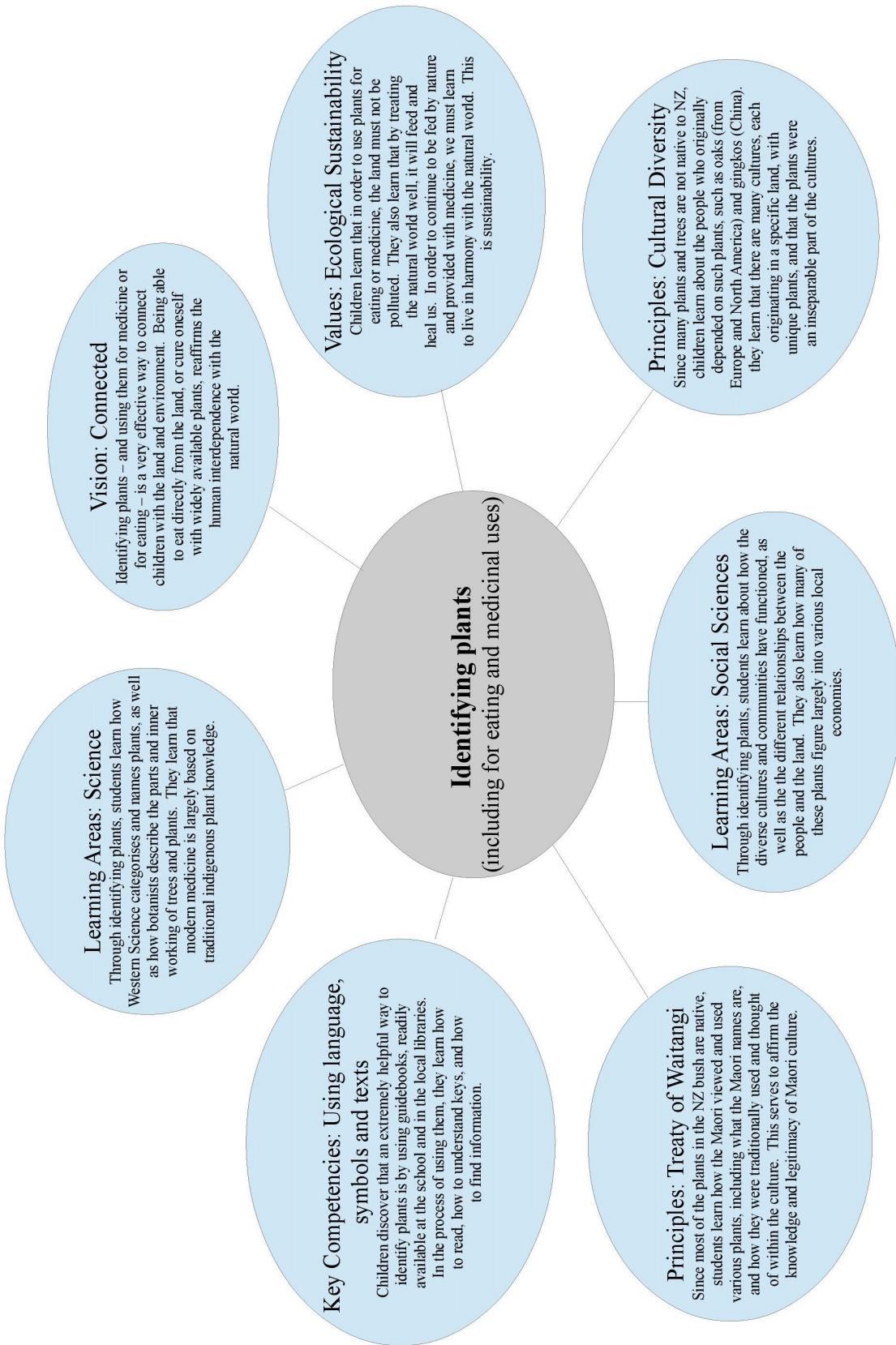
How *organic permaculture/horticulture* supports the NZ Curriculum: a few examples



How *exploring Climate Change* supports the NZ Curriculum: a few examples



How *identifying plants* supports the NZ Curriculum: a few examples



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A man's life is short. Make yours a worthy one.
- John Fire Lame Deer



**"What do parents owe their young that is more important
than a warm and trusting connection to the Earth...?"**

– Theodore Roszak, *The Voice of the Earth*