

Active Outdoor Learning Spaces Case for Support

PROJECT OVERVIEW & SUMMARY

In recent years, The Study has undergone transformation in achieving financial autonomy thanks to the generous support of our Study community. Building on this distinction, The Study continues to explore innovative ways to enhance and enrich its students' experiences, by embracing dynamic and impactful pedagogical strategies.

The Study's Active Outdoor Learning Spaces is an ambitious project that aims to blend innovative approaches in pedagogy that include immersing students and teachers in the natural environment, while incorporating trends in sustainable design principles within the historical context of the school's heritage property in Westmount.

The Study is pleased to invite you to join us in our efforts to embark upon a truly innovative and visionary outdoor spaces development project that will:

- Reinforce emerging pedagogical research that addresses the importance of outdoor learning for optimal physical activity, health and wellness through immersion in natural outdoor green spaces
- Support The Study's strategic commitment to repurpose existing facilities, and create new learning spaces that enhance the cognitive development and mental health of our students through experiential learning
- Address the emerging societal imperative to provide additional green spaces and nature zones in urban settings, with an emphasis around school properties
- Position The Study as leaders in the area of urban environmental education and stewardship
- Show leadership in environmental design using sustainable principles in architecture for optimal educational practices, while honouring the historical context of the space and surrounding buildings.

WELLNESS AND EMOTIONAL HEALTH: THE CRITICAL ELEMENT TO A WELL-ROUNDED EDUCATION

The rapidly declining mental health of today's students is a crisis. We can hypothesize that some of the reasons for this may be linked to the increasing demands of school and homelife, the adverse effects of social media, or the changing nature of relationships due to increased use of technology. This is especially apparent during the current conditions related to this pandemic.

It is, however, the responsibility of schools and the community to come together and to improve this alarming situation. Schools have greatly increased their efforts and funding in this area, adding school wellness support staff, counsellors, and providing access to mental health professionals. All this while also offering more flexible scheduling and customized learning plans. Teachers and staff are given enhanced professional development to learn how to better recognize and support students struggling with their mental health, and schools are charged to work more closely with parents to create a stronger connection to support the child. Yet, an element that appears to be greatly missing is that of our students' learning environment. It is imperative that schools and their communities begin to invest more significantly in creating alternate learning environments that support positive mental

health. Afterall, healthy students are happier, more focused, and able to perform better academically.

'Nature Deficit Disorder' Amongst Children: The Importance of Learning and Living with Nature in an Urban Setting

The relationship between nature and individuals in urban settings has become increasingly distant – urban dwellers often live with little to no contact with nature. There is an emerging body of research that points to the emotional and psychological impact of this 'nature deficit disorder', and that without regular access to nature, researchers have noticed a negative impact on the emotional and physical well-being of such individuals, with a more pronounced effect on children.

However, the negative effects of a lack of nature can be reversed with increased connection and immersion in nature. Nature's impact on the emotional and psychological well-being of the individual is real and immediate, from enhanced physical activity and increased attention, to improved sleep and reduced stress.

"Today, more than ever before, school-related stress is taking a toll on the physical and emotional health of our students. From standardized tests, to bullying, to increasingly rigorous safety drills, stress is a very real problem for the younger generation. Left unchecked, it can lead to everything from sleeplessness, headaches, and stomach problems to depression and aggression."

 National Wildlife Federation Blog: <u>https://blog.nwf.org/2018/08/reducing-student-stress-</u> <u>through-nature/</u> Accessed on Friday, January 8, 2021.

"Experiences in nature led to improvements in attention span, self-discipline and physical fitness, all while reducing stress."

 CBC Nature offers serious benefits to our physical and mental health, research suggests: <u>https://www.cbc.ca/news/health/nature-health-1.5128482</u> Accessed on Friday, January 8, 2021.

"We hear more and more about how children are nature-deprived. The combination of urban living, time spent on devices and fearful parents is not only robbing children of an appreciation of the amazing diversity of life on this planet, it is missing an opportunity to reap the benefits nature can provide to the mind."

 Bob McDonald, CBC Radio Host: How to improve education: move the classroom outdoors <u>https://www.cbc.ca/radio/quirks/how-to-improve-education-move-the-classroom-outdoors-</u> <u>1.5058244</u> Accessed on Friday, January 8, 2021.

"When nature is used as a classroom, it has a positive effect on learning among children in at least eight different ways..."

 Bob McDonald, CBC Radio Host: How to improve education: move the classroom outdoors <u>https://www.cbc.ca/radio/quirks/how-to-improve-education-move-the-classroom-outdoors-</u> <u>1.5058244</u> Accessed on Friday, January 8, 2021.

While society, as a whole, is responsible for ensuring that our common urban areas are interlaced with natural spaces, schools have a critical role to play, whether it be to naturalize their outdoor play spaces, incentivize and encourage teachers to use outdoor spaces as their classrooms, and encourage nature lessons and environmental stewardship. This philosophy is especially important for city-center schools and urban educational institutions and represents an on-going opportunity for schools such as The Study to play a leadership role.

"Of course, not all schools have a forest nearby. Nor can they afford to make too many bus trips to the country. But scientists suggest that school yards could be made a lot more green..."



 Bob McDonald, CBC Radio Host: How to improve education: move the classroom outdoors <u>https://www.cbc.ca/radio/quirks/how-to-improve-education-move-the-classroom-outdoors-</u> <u>1.5058244</u> Accessed on Friday, January 8, 2021.

Knowing About Nature & Developing Respect for It

"Il faut un lien affectif pour vouloir protéger l'environnement. Les enfants ont besoin d'un contact sensuel. Comme quelqu'un de brillant a eu à dire : pour protéger, il faut aimer; pour aimer, il faut connaître. À l'école, on parle trop de protéger « la planète », c'est trop général, ça ne nous touche pas du point de vue affectif. Et une photo d'un oiseau n'est pas assez. Il faut en voir un vrai, entendre ses sons, voir ses mouvements, et ainsi passer dans l'émotion....Il faut une expérience affective forte et idéalement lorsque nous sommes jeunes. Une fois que le lien affectif est établi, c'est facile d'aller chercher des connaissances."

- The Nature Project, Executive Summary, Pg. 4.

It is the responsibility of schools to ensure that experiential learning about nature occurs – not in a fourwalled classroom, but in nature itself. Experiential learning is a progressive pedagogical approach that lends itself very well to imparting concepts related to the natural world and environment as students are immersed and surrounded by it.

While this seems simple, it poses a challenge for schools and educational institutions that are urbanbased. Many urban-based schools are focused on keeping children 'safe', usually inside concrete walls and uninspired play spaces.

But, while this may still be the case, The Study, a city-center school, sees this as an opportunity to challenge this situation with a progressive and visionary design for its outdoor spaces, transforming them into flexible and active outdoor learning spaces. Students will become better acquainted in nature, developing a stronger connection to, and respect for the environment, while also improving their overall mental and physical wellness. Teachers and staff will finally have the flexible outdoor teaching spaces to inspire, guide, and embolden our students as they work towards fulfilling their overall academic potential and personal development. What a wonderful way to learn about nature and to develop a respect for its beauty, its simplicity, its magic, and, indeed, its power to play an important role in an individual's overall wellness!

As a neighbour and member of the Westmount community, The Study also looks forward to contributing to the City of Westmount's mission to enhance its municipal green spaces and natural beautification in its residential neighbourhood.



THE STUDY'S ACTIVE OUTDOOR LEARNING SPACES Embracing the Crossroads of New Research in Pedagogy and Wellness

Run, Jump, Slide, Skip. Sing, Dance, Debate, Orate. Laugh, Think, Read, Breathe.

The Study has a unique opportunity to respond to these aspirations by rethinking and redesigning its outdoor spaces and transform its landscape into fun, inspiring, and creative venues to be used by students of all ages. Not all hustle and bustle — they will offer distinct moments for physical movement and emotional well-being through intimate and immediate connection with nature.

The Outdoors Experience – A New Frontier in Education

Learning by experience, learning through play and movement, and learning in small groups are keystone pedagogical elements that support our faculty's innovative teaching philosophies. Over recent years, there has been a growing need to support these progressive pedagogical pillars with outdoor spaces that can adapt to meet multiple pedagogical needs.

Today's new research in pedagogy highlights the importance of outdoor learning for optimal health and wellness. When combining this research with the emerging societal imperative to provide additional green spaces and nature zones in urban settings and schools, The Study recognizes the opportunity to be pioneers in the area of sustainable design. By being proactive in repurposing existing, and creating new, learning spaces and nature zones, The Study is empowered to both enhance the cognitive development of our students through experiential learning and immersion in nature, while providing environmental education and stewardship.

The Study's current curriculum already expands into the outdoors – a pedagogical practice that is already becoming entrenched amongst our faculty and staff. Physical education classes choose to go outdoors, onto Mount Royal, or one of the neighbouring parks, and the occasional math class or science class ventures outdoors to count or practice division, look at tree varietals or plant seeds in the school's vegetable garden. Indeed, our faculty have the remarkable capacity to imagine and apply unique and creative ways to use our school's outdoor spaces, often borrowing a space on the hill, under a tree, in an outdoors nook, or in the grass. Wouldn't it be exciting for our students and faculty if they could be provided with an outdoor learning environment, a few steps from their traditional indoor classrooms, that is fully designed for their purposes and destined for greater use?

This new project proposes formalizing that which is beginning to happen already at The Study – reuniting people with nature. The plan incorporates spaces that double as play structures and places to have quiet thought, or structures that are historically relevant while offering seating for either small groups or for classes. Guided by these design principles, every space is carefully thought out with multiple uses factored into their design.

The school's mountainside property offers exceptional untapped potential to define varied spaces nestled into the slope: slides, climbing surfaces, play structures, amphitheatres, running track and shady 'sousbois' rain garden seating...

In keeping with Study founder, Margaret Gascoigne's desire to 'Teach things that really matter', intertwining and aligning exterior play and pedagogical spaces with the ecology of The Study's rich natural setting, right in the heart of the city, fundamentally supports our educational pillars and sustainable aspirations while ultimately inspiring spontaneous and nature-based curiosity and creativity.



The Study's Active Outdoor Learning Spaces for Innovative Pedagogy and Environmental Education will:

- A. Provide our students and teachers with **outdoor classrooms and flexible seating** within its architecture
 - Amphitheatre-style seating in both the upper and lower outdoor spaces, large enough for a full sizes class, will be built into the natural slope of the sites hill using natural materials
 - A 16-foot stone table will be installed to support seminar-style classes, and will also serve as an outdoor lunch table



- The balustrade will be installed at a height that will allow casual-style seating for small group gatherings and classes
- B. Offer a much-needed connection to the natural environment and respite from the stimulation of their day with new "Chill Zones", reflection gardens and natural seating in wooded areas
 - A reflection nest for staff and faculty, situated just steps away from the senior school staff room, will serve as a much-needed outdoor retreat for staff to use for health breaks
 - Stone and wooded benches will be nestled in, and around, the gardens to support the need for small group gatherings, quiet contemplation, and respite from the day's busyness
- C. Inspire creative thinking and independent, selfdirected play with ageappropriate play spaces and structures that will fully maximize the advantages of the property's natural topography
 - Slides and climbing walls will be installed in the hill of the site's topography



 Play structures have been carefully selected to offer variety while maximizing the uses of them



- D. Foster environmental and 'green' education through immersion in nature with specifically designated 'natural' zones for use by students and staff alike
 - An 'edible garden' will be installed to support the school's Earth Club's organic vegetable garden growing activities
 - An Arboretum is being planned by a senior school science teacher to expand students' understanding and appreciation for native tree and plant species
 - The Enchanted Garden, Magic Rock Garden and The Evergreen Nook will offer fun and natural spaces for students and staff to use and enjoy. Natural stepping stones and small stone benches will be installed to encourage students to play, hide, read, and think in these spaces.



"Plonger dans l'univers d'un livre, entre ciel et terre. Faire cercle autour d'un arbre pour débattre des enjeux futurs. Passer à l'action et apprendre par le geste. Ouvrir la classe à l'horizon. Construire et tester sur le terrain. S'activer, collaborer, se regrouper en communauté. Voilà un nouvel espace qui multiplie les possibilités."

- Julie Caron, Enseignante de français au secondaire.

"I'm excited about this project because of all of the endless possibilities that the space will have to offer our students, and how they will use their creativity and imagination to turn an extraordinary place into a magical space. I can already imagine the girls packing snow into the balustrade to turn the upper terrace into a castle.... I can't wait to see how the girls use these spaces in ways that we, as adults, have not yet even dreamed of."

> - Susie Levesque, Physical Education Teacher, Elementary School.



The Study's Active Outdoor Learning Spaces - Page 6 of 9



HOW THE COVID PANDEMIC HAS UNDERLINED THE IMPERATIVE FOR OUTDOOR LEARNING SPACES MORE THAN EVER BEFORE

"It is always our responsibility to be aware of any new circumstances that can create a shift in how we understand and view the potential of any learning environment. Being able to take advantage of a situation that we may have been forced into and turn it into an incredible advantage for the students is the best outcome of any opportunity."

- Erika (Flores) Ludwick '88, Chair, Board of Governors.

Since COVID-19 began almost a year ago, schools have been forced to re-think their learning spaces in order to allow for acceptable social distancing, and have been encouraged by the Ministry of Education and health experts to ensure that students spend as much time outdoors as possible, as a precaution and strategy to help reduce the spread of the virus.

We can appreciate that many schools are not currently outfitted with appropriate or functional outdoor spaces that can accommodate such needs, especially those in urban settings. For The Study, COVID has highlighted the importance of this meaningful and transformational project, by enhancing everyone's awareness of the need for thoughtfully designed and flexible-use outdoor spaces.

ENVIRONMENTAL STEWARDSHIP AND SUSTAINABILITY: A GREEN DESIGN

"Green school grounds are intrinsically progressive from an environmental standpoint."

- Sophie Robitaille, Project Lead, Robitaille Curtis.

In developing the concept design for the project, the challenge was threefold: incorporating all of the intended applications and uses for the space into one harmonious design; being progressive in the design while recognizing the property's existing heritage and historical context; incorporating sustainable and green principles in such a design.

Identifying the potential for sustainable design was, in fact, met with ease. The overall theme of nature and environmental stewardship remained at the core of design conversations and development, creating the right conditions for a simple integration of green architectural elements. That said, one of the major areas for sustainability emerged from the school's need to more effectively manage the excess water on its site – an ongoing challenge given the school's physical positioning on a hillside site punctuated with mountain run-off surface water, spring water, and even old underground wells.

With sustainable principles in mind, the project design will:

- Manage storm water on-site with our engineered rain gardens and water canals
- Conserve healthy soils and appropriate vegetation
- Support local habitats for insects, birds, and animals
- Increase the overall amount of green space on the site, absorbing green-house gases, contributing to carbon sequestration
- Provide zones with natural shade from the sun using native plants and trees
- Apply natural and local materials, including stone and wood, wherever possible, to provide structures for play, sitting, and elements of visual interest and exploration
- Protect and maintain cultural and historic places
- Provide optimum site accessibility and safety
- Offer site durability adding to the project's overall long-term sustainability
- Support physical exercise and emotional health
- Reduce energy costs and decrease waste with the use of LED lights



WELLNESS AT THE STUDY

The Study is deeply committed to the overall health and wellness of its students and staff, and how to balance the rigours of a Study education, while preserving an overall balanced and 'well' lifestyle. The school's approach permeates across disciplines, inter-departmentally, and throughout the curriculum, as students and teachers alike appreciate and understand that overall wellness supports both the individual's ability to perform academically or professionally, and contributes to a positive environment in which personal balance is valued and respected. 'Late start' days for the senior school girls, longer play times outside, mindfulness practice, gratefulness projects, 'Just Dance' dance breaks, running clubs, athletics programs, integrated projects, environment clubs, yoga practice for faculty, and mental health days are only a few of many examples of initiatives that are embedded in the school's ethos. The Study continues to work towards improving, adjusting and growing its wellness practices, as reflected in this Active Outdoor Learning Spaces project.

RECOGNIZING THE HISTORICAL CONTEXT AND HERITAGE VALUE OF THE STUDY'S PROPERTY

The Study has deep roots in Westmount, having moved from Seaforth Avenue to 1 Braeside Place in the Spring of 1960. The building is considered, by the City of Westmount, to be a Category 1 heritage site and has an illustrious history of its own. Built in 1914 and designed by Robert Findlay, this house was designed in the Italianate Revival style for Thomas Bassett Macaulay. Author Colleen Gray writes in her book No Ordinary School, The Study 1915-2015: "The house was empty for four years after the onset of the great depression and was rented from Macaulay's son to George Spinney, president of the Bank of Montreal." Page 73. In 1959, the house was sold to The Study Corporation, and Westmount architect F. David Mathias was hired to present a design that would convert the great mansion into an



"Caimbrae," 1 Braeside, designed by Robert Findlay for Thomas Bassett Macaulay (1911-1914)

educational facility. "Mathias' commitment had been to turn the building into a modern school while preserving the character of a dignified house in keeping with its residential surroundings". (pages 74-75)

Over 60 years later, the school's Active Outdoor Learning Spaces project highlights the school's ongoing commitment to its historical context in a residential neighbourhood, and has worked closely with its project's local and knowledgeable landscape architects and designers to ensure that every aspect of the design resonates with its property's heritage, and the City of Westmount's determination to preserve its historical buildings and structures.

The Study is proud to commit to preserving its original structure, and to restore some of its original historical elements. Examples of this would be the revival of the original carriageway that was originally along the upper terrace of the lower outdoor space. What was once a space for carriage and horses will now be a newly expanded area that will improve the flow of foot traffic around the building, host outdoor classes and recess periods for students and staff, offer a premiere place for outdoor events and celebrations, and present a beautiful and welcoming element to the overall appearance of the property when viewed from The Boulevard. Framing the curvature of the carriageway's path is the reappearance of the balustrade, complete with the fine detailing and ornamentation that was common in the time that these properties were originally built.



TIMELINES & BUDGET

The Active Outdoor Learning Spaces project has three (3) major phases, with the first phase as a preliminary/deferred maintenance phase to address some of the school's foundational work and waterproofing around the property, in preparation for the second phase of this project. Much of the preliminary work took place over the summer and fall of 2020. Please see below in the Annex for further information on this preliminary part of the project.

Phase	Timeline (pending funding)	Budget	Comments
Phase 1: Preliminary phase - complete	Summer and Fall, 2020	\$1,000,000	Funded by the school's capital budget
Phase 2a – East Path	Summer 2021	\$1,000,000	Funded by the school's capital budget
Phase 2b – Lower grounds (facing The Boulevard)	Spring, Summer and Fall 2022	\$1,500,000	Currently \$500,000 in commitments, with \$1,000,000 outstanding
Phase 3 – Upper grounds (facing Braeside)	Spring, Summer and Fall 2023	\$1,500,000	Fundraising will begin for this once phase 2b is fully funded

AN INVITATION TO JOIN US AS A FUNDING PARTNER

"Over the lifeline trajectory in the evolution of a school there are legacy moments that bring the community together to dream and create something larger than the moment itself. This is one of those moments — an opportunity to define and take full advantage of a unique and exceptional aspect of our garden-city setting defining exterior learning grounds to support and inspire the Study girls of today and of tomorrow. This bold initiative offers much and varied potential to have a profound impact on our students and our community — this is exciting and inspiring to me in my roles as a Study parent, a Study Old Girl, and a Board member. I hope you will join me in supporting this exceptional expansion project."

- Samantha Hayes '86, Project Chair for The Study's Active Outdoor Learning Spaces

We believe that having an innovative pedagogical green space as presented above, The Study will remain on the cutting-edge of education, while becoming leaders in the areas of sustainable design and environmental stewardship. We hope you will join us today as a valued funding partner.

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