landED

TEACHER'S GUIDE TO OUTDOOR LEARNING:

SUMMER

little bluestem
landscape architecture

Little studio, deep roots.

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Winnipeg, Manitoba, Canada
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ABOUT landED

As landscape architects, we are responsible for the design of beautiful, livable outdoor spaces. At Little Bluestem Landscape Architecture (LBLA) this responsibility often translates to working with community groups in education, healthcare, and daycares. But we feel that there is potential beyond the construction of landscape designs for programming that establishes a key connection with nature. This belief led to the development of landED, a program through which we reveal the intricacies of landscape systems, and guide our communities to engage with outdoor space to its full potential. We have worked closely with the Manitoba Curriculum and local educators to ensure all our lesson plans and workshops can fit within the framework laid out by our province.

A source of inspiration for our team has come from the Landscape Architecture Foundation's *21st Century Call to Action*. This declaration critically examines the power of landscape architecture to respond to the global experience of climate change, urbanization, management of vital resources like water, and global inequities. Through our work, we join a passionate community working to answer the call to action at this critical time when the talents and services of landscape architects are so vitally needed.

We believe outdoor education is critical, especially in youth. So in 2019 we established landED: a landscape enrichment program by LBLA. landED is committed to helping communities engage with their environment. We offer land-based design and environmental learning through lesson packages, placemaking toolkits, and interactive outdoor workshops. Our focus on nature programming extends to all seasons of the year, adapting to the drastic landscape changes we experience in our northern climate.

landED programming takes into consideration the different scales of landscape availability, from hardtop schoolyards, to forest and field exploration. Our programming offers safe and inclusive lesson plans and activities that promote risky play through nature-based exploration. No matter the outdoor space, age, or skill level, landED offers programming that works to meet your needs. LBLA's design clients also have access to content specifically tailored towards activating the landscape spaces designed by our firm. With our knowledge and passion for landscape architecture and the design of ecological systems, our team is excited and ready to help you enliven and connect with your outdoor spaces.

LANDSCAPE + EDUCATION = landED

INDIGENOUS ALLYSHIP AND LAND ACKNOWLEDGEMENT

We at LBLA acknowledge that the Indigenous people of Manitoba and North America have been providing land-based education to their children for centuries. We recognize that due to the history of colonialism and residential schools, the tradition of land-based teaching has been systematically disrupted. As signatories of Winnipeg's Indigenous Accord, we are committed to acknowledging the history and impacts of colonization, while consulting and engaging with Indigenous Peoples to address the need for ongoing land reconciliation. We believe in the importance of incorporating Indigenous pedagogy into educational practices, and cultivating places that are reflective of Indigenous worldviews. At landED we are dedicated to creating programming for individuals to engage in design-focused educational practices that reflect a spirit and intent of reconciliation, while advocating for landscapes that acknowledge and celebrate Indigenous teachings and practices.

We are a small business on Treaty One territory in Winnipeg, Manitoba, filled with passionate, professional nature-lovers who are very committed to improving the environment. In order to support our local business so we can keep doing the work we love, please pay and download content for your own classroom use only. Honour system in full effect!

We would love for you to share updates using the hashtag #landEDMB, so we can be a part of your journey to integrate landED in your classroom. Your reviews and feedback help us grow, so please reach out to us on any of our social media platforms:

@landED.MB

@littlebluestemLA

littlebluestemla.com/landED

Thank you for your support!

CHANGING SEASONS

INTRODUCTION

As we shift into a new season, now is the time to assess your outdoor classroom practices, see what is working for you, and plan for the months ahead.

In this seasonal guide we will discuss safety measures, summer brainstorming, discussions, and activities.

CLIMATE AS A GUIDE

Manitoba's drastic seasonal changes provide a clear framework for students to conceptualize the passage of time.

Students can create a seasonal notebook, to use at school or home to record the changes of the season. It is particularly important to suggest investigations that can take place whether learning is at school, or remote.

THINK ABOUT IT

Living in the earth's northern hemisphere, we experience summer weather mainly in June, July, and August. What are these months like in the earth's southern hemisphere? How would your life be different if you lived in another hemisphere?

SEASONAL CHANGES STUDENTS CAN ADDRESS MAY INCLUDE:

- What changes outside let you know that spring is over and summer has arrived?
- How do you feel when you are outside in summer, and is it different from how you felt in the spring?
- What plants do you only see during the summer months?
- What animals are particularly active in summer?
- Have you ever heard someone say that summer is "short"? Do some seasons of the year actually last longer than others, and if so, why is that?
- How have the temperature and weather patterns changed during my lifetime? During my grandparents?

SEASONAL RISK ASSESSMENT

Run a risk-benefit assessment with students, considering seasonal risks such as dehydration, sunburns, and heat exhaustion.

HEAT WAVES

SAFETY MEASURES

Now is the time to work with parents to update outdoor safety kits for each student. Summer safety kits will be similar to spring and may include additional items like a brimmed hat, SPF lip balm, sunscreen, sunglasses, protective clothing and bug spray.

CLASS DISCUSSION

In addition to the physical items in their safety kits, have students consider how their outdoor habits/ choices can help them stay safe. These behaviours may include going outside earlier in the day before the sun is at its peak, and setting the class discussion space in a well-shaded spot. Have students consider the school ground or their home learning environment, and determine what areas will be more comfortable when it is hot outside and why. Discuss the influences of solar exposure, wind direction, and ground cover materials (e.g. a shaded spot on the grass will be cooler than a shaded spot on asphalt).

ACTIVITY IDEA

Discuss with students how different animals, including humans, avoid overheating in the hot summer sun. Get students to research the adaptations of specific animals and present their findings to the class. As a class, discuss how people could learn from and apply these animal adaptations.

When people mimic strategies found in nature to solve human problems, this is called biomimicry. Consider looking at the cooling strategies of animals such as prairie dogs, termites, pigs, koala bears, pelicans, and hares.

Updating this kit can be done in collaboration with the students, as a brainstorming exercise on how to stay safe in hot, sunny weather. Continue to be aware of different insects like mosquitoes, ticks and wasps. It is also a good time to reassess what you should be bringing outdoors as a class. For example, you may wish to provide a large water jug for students to refill their water bottles. Considering implementing a "tick check"

SCHOOL'S OUT

ABANDONED SCHOOL YARD

For the majority of the summer, both students and teachers are not present at the school. What can you do if your class just spent the spring and early summer creating a garden or establishing new plants in the school yard? Ignoring them and hoping for the best will likely result in disappointment come September. To avoid disappointment, consider these options:

- Create a Summer Gardening registry. Interested families of students sign up for one day during the summer (1-2 families per week) to perform basic gardening tasks such as watering and weeding garden beds. This registry can be discussed at PTA meetings, and creates a sense of communal responsibility for each family to do their part in maintaining the school yard.
- Create a Buddy Gardening system. Encourage mentorship and a sense of welcoming by coordinating incoming and outgoing classes each year. Each senior year student will partner with a student from the incoming class to perform routine maintenance on the outdoor space. This is best done in groups of 3-5 buddies one day per week. If the younger incoming class helps the older students with, for example, a fall harvest, they will be more invested in creating and maintaining a garden for the students that come after them.
- Hire a local landscaping firm. A common summer job for young adults, landscaping can be done by a commercial company if they are properly briefed on the needs of the school before summer begins. This may even lead to former students coming back to care for their old gardens!
- Hire a "Green Team" to handle maintenance activities. There is funding available through the Government of Manitoba. The Green Team program creates summer employment opportunities for youth aged 15 to 29 years. Participating employers provide a variety of community development projects that improve neighbourhoods, promote community involvement and help develop young leaders. The employment period is between May 1 and August 31.

If you have a summer maintenance plan that works for your school, we would love to hear about it, and share your innovation with the community. Tag us on social media @landed.mb

SUMMER BRAINSTORMING

EXPERIENCE THE CHANGE OF SEASONS

Establish a checklist of routines, with individual responsibilities that students can perform either at school or at home. These routines may include:

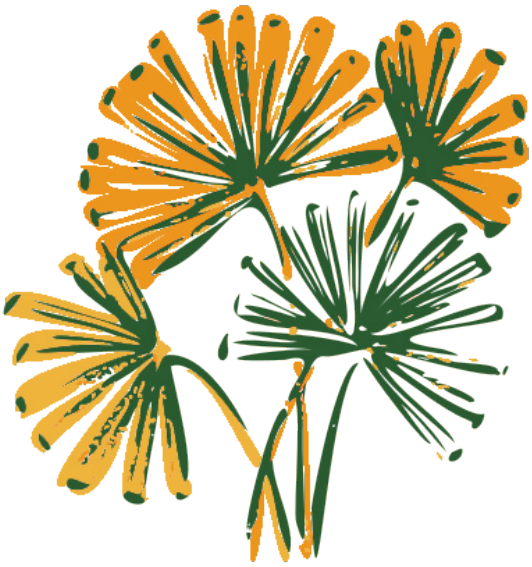
- Tracking the weather: temperature, rainfall, storms. Do storms happen more often in the summer? Why might this be?
- Viewing the same garden over a series of weeks. What life cycle stage are plants at in the summer? Are all plants at the same point in their growth? What vegetables and fruit ready to harvest?
- Observing pollinators and flowers in full bloom. How does the growth of the plants relate to what insects we can find?

URBAN HEAT ISLAND

Due to humanity's building development, the air temperature in cities is significantly warmer than in surrounding rural environments, typically between 3-10°C. Large areas of dark-coloured surfaces, such as asphalt and rooftops, trap and release heat into the air. These higher temperatures in cities have a negative effect on the people living in them, and on the environment as high temperatures lead to increased energy used for cooling.

Urban heat island effects can be mitigated through design by increasing the use of vegetation, permeable surfaces, light-coloured ground materials, and by incorporating water (a natural temperature regulator) into the landscape.

SUMMER BRAINSTORMING



ACTIVITY IDEA

Gather a variety of material samples in different colours such as plain white paper, metal, tile, and rock. Place the materials outside in a space that gets direct sunlight during the day. At set intervals, measure the temperature of the materials with a temperature gun. If you do not have access to a temperature gun, you can comparatively measure the temperature of the materials by touching them and recording your findings using descriptive words.

When handling materials, be sure to instruct students to hover their hand over top of the material first to test how hot it is and avoid direct contact burns. On particularly high temperature days, use gloves or tongs to handle the materials. Further experiments may include a compare and contrast exercise with materials in the shade, or testing materials in other states, like soaked in water.

ONLINE EXTENSION

Students will examine an area on google maps and draw where higher and lower temperatures would be during the summer, based on what they have learned about sun and its interaction with various materials, and the urban heat island effect. If possible, have students test the accuracy of their predictions by visiting these places in person to see if they can detect a difference in temperature. If they have access to a regular ambient thermometer, this can also be used to test the students' hypothesis.

ACKNOWLEDGEMENTS

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