

# Research

## R E P O R T

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Saskatchewan School  
Boards Association  
400-2222 13th Avenue  
Regina, Saskatchewan  
S4P 3M7  
Fax: (306) 352-9633  
Email: [admin@saskschoolboards.ca](mailto:admin@saskschoolboards.ca)

Look us up on our website  
[www.saskschoolboards.ca](http://www.saskschoolboards.ca)

## School Community Gardens School Ground Greening

by  
Kelly Berlinic

This report was commissioned by the Saskatchewan School Boards Association to provide guidelines for school garden or greening projects.

Study this resource to learn more about:

- ✓ The rationale and benefits of school garden or greening projects.
- ✓ Promising practices to guide your project.



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## Introduction

This report was developed by the Saskatchewan School Boards Association for School Community Councils, school administrators and staff and Boards of Education to utilize as they consider school gardens and greening projects within their school or division. It is intended to serve as a resource to encourage and assist them as they develop initiatives to enhance the school green-space.

There is an increasing trend towards school ground greening projects in Canada. Educational stakeholders are recognizing the value in transforming barren asphalt surfaces into growing landscapes that educate and inspire. School ground greening projects provide students with more engaging playground spaces, increased environmental awareness and shade to protect against ultraviolet radiation (UVR).

School community gardens offer students the opportunity to engage in experiential learning and promote the concepts of ecology. Integration of the school garden into the curriculum encourages lesson plans that literally take the students from seed to table. Students learn all aspects of the food cycle and are exposed to the environment, food production, nutrition and ecology. School gardens teach children where their food comes from and encourages good eating practices by fostering an appreciation for natural foods.

Ethno botanical gardens provide an excellent opportunity to teach students about plants traditionally utilized as food, materials and medicines by First Nations. Students can experience hands-on First Nation cultures and traditions such as planting a *Three Sisters Garden* of corn, beans and squash.

Ecological literacy is gained by understanding natural cycles and the interdependence of all living things. A plot of wheat can teach students the full cycle as they plant, cut, and stook, thresh, grind and eventually bake the bread. This activity not only fosters eco-literacy, but encourages a healthy respect for the early settlers by exploring crop production as it was done by pioneers.



School gardens and greening projects provide healthier living spaces for the entire community. By encouraging student, parental and community involvement in the planning and maintenance, the school community garden fosters a shared sense of ownership and pride in the school grounds.

*By what is included or excluded we teach students that they are part or apart from the natural world.*

— David Orr, 1991

## 1. Benefits

There are many benefits to school community gardens and school ground greening projects. These spaces provide opportunities for experiential learning and expose students to the wonders of the natural world. They teach the interconnectedness of all living things by giving students hands-on experience with growing and nurturing both plant and animal life.

Teachers are given new and expanded opportunities to bring the curriculum to life within a school garden. Interaction with students in the garden can positively reinforce relationships in the classroom.

When parents and community members are given the opportunity to partner with the school in the planning, design and maintenance of the school garden, this partnership fosters ownership for the school property and encourages adult volunteerism and participation within the school.

In *Grounds for Action: Promoting Physical Activity through School Ground Greening in Canada*, authors Anne Bell and Janet Dymont found that green school grounds support a wider spectrum of play activities which in turn foster physical activity. They suggest that there is an opportunity for school grounds to be “sites of intervention”. The study contends that school ground greening projects promote healthier activity on a regular basis and should be considered when developing school-based preventative strategies for overweight and obesity. Their findings draw a distinct correlation between school ground greening and health promotion.

School-based nutrition programs are supported by school food gardens by providing hands-on experience in the food production. They also offer students opportunities to harvest and consume nutritional food and educate them on the many varieties of native and seasonal produce.

*Nature has been for me, as long as I remember,  
a source of solace, inspiration, adventure, and  
delight; a home, a teacher, a companion.*

— Lorraine Anderson



## **Nature Nurtures**

*Nature Nurtures: Investigating the Potential of School Grounds*, was commissioned by Evergreen in 2000. This comprehensive review examines the benefits of school ground greening.

The benefits cited in this review include:

For students:

- *More meaningful play and learning*
- *Safer and less-hostile outdoor environment*
- *More gender-neutral play spaces*
- *Lower exposure to toxins*
- *Practical and hands-on opportunities that reflect the curriculum*
- *Better understanding of cultural differences*

For Teachers:

- *New curriculum connections*
- *Increased morale and enthusiasm for teaching and learning*
- *New reasons to go outside*
- *Reduced discipline and classroom management problems*

For Community:

- *Stronger sense of community and community satisfaction*
- *Active involvement for parents in children's school*
- *Healthier natural environment*
- *Financial savings*

For Schools:

- *Curriculum connections*
- *Reduced disciplinary referrals, absenteeism and dropouts*
- *Reduction of anti-social behaviour on school grounds*

***Tell me and I'll forget;  
Show me and I may remember;  
Involve me and I'll understand.***

— Chinese proverb





## ***Twenty Good Reasons***

Below is the *Edible Schoolyard List of 20 Good Reasons to Have a Garden and Kitchen at Your School* as posted on their website at <http://edibleschoolyard.org>

1. The garden and kitchen provide a context for understanding seasonality and life cycles.
2. It's an opportunity to work cooperatively on real tasks.
3. Sensory experience becomes part of a child's day at school.
4. The garden and kitchen offer opportunities to honor the cultures comprising the MLK school community.
5. They provide opportunities for informal one-on-one time for teachers and students to talk.
6. They create common experience to build on in multiple settings – from classroom to celebration.
7. Students understand the role of food in life – the kitchen and garden allow us to improve nutrition and highlight healthy foods.
8. Students learn about where food really comes from.
9. Kitchen and garden experiences reinforce classroom curriculum.
10. They provide opportunities for community involvement – the kitchen and garden provide a link with neighbors, volunteers, parents, and community businesses.
11. They offer opportunities to teach life skills such as gardening and cooking.
12. The kitchen and garden setting helps broaden the way teachers look at both curriculum and their students.
13. The garden and kitchen are beautiful spaces that connect students to their school.
14. They provide a context for rituals and celebrations.
15. A kitchen and garden promote risk taking, such as trying new things...foods, activities and making new friends.
16. Students value the garden – their sense of pride and ownership discourages vandalism.

17. The kitchen and garden offer opportunities for students to practice their observation skills.
18. In the kitchen and garden students build vocabulary... both small and large.
19. The garden and kitchen offer opportunities to integrate curriculum across subject areas.
20. In the kitchen and the garden, students can observe all of the Principles of Ecology in practice.

*Food is our common ground, a universal experience.*

— James Beard



## **2. Challenges**

School gardens and greening projects do not come without challenges. Proper planning and involvement of all the stakeholders during every stage of development will assist in overcoming these barriers. A “team” approach will help to ensure the longevity of the project. The vision may well have been ignited by a single individual but it requires the support and enthusiasm of many people if the project is to be sustainable.

Some of the issues that you will need to address are:

### **Safety**

Careful planning is necessary to ensure the safety of everyone within the garden during all stages of development

### **Funding**

A well thought out business plan and long-term budget will help to ensure the success of the project

### **Liability**

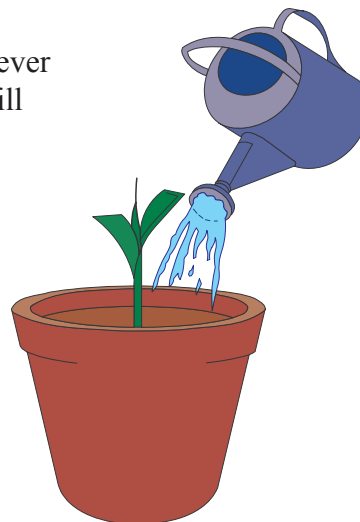
Proper research of policies, bylaws, rules, regulations and insurance should be thoroughly investigated before the project begins

### **Providing for all the needs within the school ground**

Recreational and educational needs, high activity areas and spaces that can sustain high usage must all be considered in the development of your plan

### **Vandalism**

Many project stewards report that vandalism of school property decreases with the development of the school green space, however careful consideration of this issue by the planning committee will help to ensure success



**Community use**

School yards are often open to the community and school gardens and green spaces promote this shared utilization. Community usage needs to be considered when planning

**Maintenance**

An ongoing long-term maintenance plan is crucial to the lasting success of the project.

Examples of school greening projects that successfully overcame these challenges and more can be found at [www.evergreen.ca](http://www.evergreen.ca)

*“Weeds are flowers too, once you get to know them.”*

— Eeyore, from A. A. Milne’s *Winnie the Pooh*



### 3. Types of School Gardens and Greening Projects

The range and variety of school gardens and greening projects are limited only by the imagination. Consideration for climate, drainage, native species, funding, volunteerism, curriculum goals and aspirations are all part of the creative process. The stated dreams and desires of stakeholders work in tandem with their needs and abilities to shape and create the school green space. Projects often utilize integrated designs that include multiple elements and consist of more than one designation.

Using the most general terms, projects can be defined by four main categories:

#### Habitat Restoration and Naturalization Projects

Sample Projects:

- |                 |               |
|-----------------|---------------|
| Forests         | Nesting areas |
| Wetlands        | Refuge areas  |
| Meadows/prairie |               |

#### Theme Gardens

Sample Projects:

- Food gardens
- Native wildflower/butterfly gardens
- Multicultural gardens
- Heritage vegetable and flower gardens
- Planter box gardens
- Herb gardens
- Pond and bog gardens

#### Spaces for Active Play

Sample Projects:

- |                        |                |
|------------------------|----------------|
| Mounds                 | Movable pieces |
| Slopes                 | Amphitheatres  |
| Seating                | Pathways       |
| Hardy shrubs and trees |                |

#### Landscapes to Enhance Stormwater Management

Sample Projects:

- Dissipation areas
- Swales
- Streams





## **4. Seeds of Success**

As with all great projects, there is no one way to design for success, however there are some simple guidelines that will help to ensure your project grows and thrives for years to come.

### **Form a Committee**

Involve students, teachers, parents, administrators and the community at large. School Community Councils are a natural fit. Look for members who are passionate about starting a school greening project. Do you have a resident botanist or horticulture club in your community?

### **Brainstorm Ideas**

Allow everyone to dream- the best plans often come from surprising places. What are the hopes for the project? What do you intend to achieve?

### **Develop a Plan**

Early planning is critical to the success of your project. Develop common themes and prioritize around them. Involve all the stakeholders to ensure widespread support. There are many wonderful examples of school green spaces already in existence. Take a look at what is out there and how it was done to assist in your project development.

### **Research**

Consider all the potential benefits and barriers to your project and research strategies to address the issues. Incorporating indigenous plants and wildlife that will thrive in your school green space will help to ensure success. Drainage, safety concerns and liability are just some of the issues that require investigation. Proper research will help you to overcome these challenges while maximizing the benefits of your school greening project.

### **Draft a Written Proposal**

This proposal should include a concept plan and detailed designs for your green space.

### **Create Partnerships**

Are there people or organizations that can assist the project? Business, government and N.G.O.s can be a tremendous resource.



**Acquire Permission**

Before proceeding with your plan, ensure that the proper permission has been acquired. Legal agreements such as letters of understanding, maintenance plans and sunset clauses may be necessary. Boards of Education, municipalities and others need to be included in this process and their bylaws and policies should be carefully considered before development begins.

**Secure Funding**

Funding can make or break a project. Financial contributions and in-kind donations of materials, equipment and labour should be securely in place before moving forward with development. Consideration is required for long-term maintenance costs of the project.

**Develop a Maintenance Strategy**

Successful projects require long-term maintenance strategies that survive the initial outpouring of enthusiasm shown by students, volunteers and teachers. Who will care for the garden during the summer months when school is closed? How will regular weeding and watering of the project be handled? These and many more important questions need to be answered prior to development.

**Plant**

Developing the project will bring stakeholders together as they engage in exciting activities that will give life to months of planning. Consider starting out small and growing your project as enthusiasm for your garden increases. Publicity for these activities might garner further support.

**Enjoy**

Potential within the school community garden is limited only by the level of creativity of its stewards and those who utilize the space.

**Evaluate**

A proper evaluation process will help to build capacity and ensure long-term success.



### ***Toyota Evergreen Learning Grounds Program***

Evergreen is a national non-profit environmental organization whose mandate is to bring nature to our cities through naturalization projects. In partnership with Toyota Canada Inc. they have created the Toyota Evergreen Learning Grounds Program. Through this program they are working to ensure school environments are nurturing. They aim to contribute positively to the health and well-being of future generations by educating children about the importance of restoring and preserving the environment.

Expert assistance is available on how to get a greening project started, planning, design, plant selection and fundraising.

Grants of \$500 to \$2000 are available to financially support publicly funded Canadian schools (K-12) who want to undertake greening projects.

Resources are available to provide information on all aspects of school greening projects. Teachers can access lesson plans and techniques for teaching outdoors as well as a library and section entitled *curriculum connections*.

For more information, visit their website at [www.evergreen.ca](http://www.evergreen.ca)

***Unless someone like you cares a whole awful lot,  
Nothing is going to get better. It's not.***

**— Dr. Seuss, from *The Lorax***



### ***The Edible Schoolyard***

The Edible Schoolyard is a first-rate example of the potential benefits of integrating a school garden into the curriculum. At Martin Luther King Junior Middle School, students are provided with a one acre organic garden and kitchen classroom. Students learn to plant, grow, harvest and prepare nutritious foods. By overcoming the disconnect between what we eat and where it comes from, they are providing their students with lasting life skills and a true appreciation for nature.

To learn more about the Edible Garden and the Principals of Ecology, visit their website at <http://edibleschoolyard.org>

### ***PFRA Shelterbelt Tree Program***

This program is available through Agriculture and Agri-Food Canada. The Shelterbelt Tree Program distributes seedlings to assist in the planting of shelterbelts in Saskatchewan and throughout Western Canada. Trees and shrubs are available free of charge. Applicants must provide their own transportation, planting and maintenance costs.

While intended for farmers, governments, charitable organizations and Band Councils, publicly funded schools might also be eligible to apply. The plant material must be planted on school grounds and should not be given to students for use at their home residences. PFRA recommends that the seedlings be used for perimeter planting around the school property.

For more information on how you can order native trees and shrubs contact the PFRA Shelterbelt Centre, Indian Head, Saskatchewan  
(306) 695-2284 Email: [pfratree@agr.gc.ca](mailto:pfratree@agr.gc.ca)  
Website: [http://www.agr.gc.ca/pfra/sbcprog\\_e.htm](http://www.agr.gc.ca/pfra/sbcprog_e.htm)

***If you want one year of prosperity, plant corn  
If you want ten years of prosperity, plant trees.  
If you want one hundred years of prosperity, educate people.***

— Chinese proverb

## **5. Conclusion**

School community gardens and greening projects provide many benefits to students, teachers, parents and the community at large. These spaces afford opportunities to expose students to the wonders of the natural world and help to teach them of the inter-connectedness of all living things. School gardens and green space can enhance student physical activity, ecological literacy, knowledge of natural cycles and offer increased protection from ultraviolet radiation.

School gardens allow students to engage in experiential learning and provide teachers with expanded opportunities to bring the curriculum to life. Interaction between teachers and students in the garden can positively reinforce relationships in the classroom.

When parents and community members are given the opportunity to be involved in the school garden, the partnership fosters ownership for the school property and encourages adult volunteerism and participation within the school.





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