



School Trees from Seed which was subsequently named [Be an Oakville Tree Hero](#) program is a tree education and planting program that was offered to schools and youth groups in Oakville for the period February 1 – June 30, 2019.

The program provided students with an opportunity to learn through multi-faceted hands-on activities about the importance of growing native trees and their impact on the environment. It engaged students in environmental stewardship through learning about the benefits, challenges and threats our urban forest is facing and through participating in a native tree seed growing activity. The action-oriented approach of the program included a number of outdoor tree stewardship events and participants were invited to plant locally-grown native tree seedlings from local seed sources back into the community and therefore, increase urban forest canopy and diversity.

Be an Oakville Tree Hero included the following modules:

- Calling All Tree Heroes – Students learned more about Oakville’s urban forest and unique tree species via in-classroom PowerPoint presentations combined with interactive learning and were inspired to take action, enjoy, care for and protect trees around their school and community
- Grow Your Own Super Tree - Engaged students in environmental eco-action by participating in a NATIVE TREE SEED GROWING activity and interactive presentation about the life cycle and types of trees. Seed growing materials and supplies provided. Students learned how to care for tree seedlings, monitor growth and understand the benefits of growing a native tree from a local seed source.
- Join the Tree Walk Challenge - Students participated in an Oakville-wide TREE WALK CHALLENGE that expanded their tree knowledge. They explored the urban forest led by Oakvillegreen staff person around their schools and neighbourhoods, and learned tree identification skills, interesting facts about native trees, threats that invasive species pose, and how to become local community tree stewards.
- Plant to Enhance Oakville’s Urban Forest – Students participated in a Spring tree planting event in the community, as well as invasive species removal, mulching and tree care for schoolyard trees. Students continuing to care for their young tree seedlings at home will be invited to Oakvillegreen’s public fall community tree planting event.

Promotion of program and acknowledgment of CTF support

Information about the program was posted on Oakvillegreen website and on all social media channels to promote and acknowledge participation. A one-page poster, acknowledging program funder CTF was developed and disseminated within schools and the community. To support our programming at schools we developed the following educational learning resources useful for future programming: presentations, planting guide, and species info and aftercare instructions hand-outs. Throughout the program: funders were also acknowledged and program promoted via community festivals, Glen Abbey Home Show, Oakvillegreen newsletter, Oakville Seed Library and Seedy Sunday events. Support of Canadian Tree Fund through Jack Kimmel Grant has been acknowledged on Oakvillegreen [website](#), social media, presentations, and written educational materials.

Multiple partnerships and in-kind contributions have been involved in the project, including: Town of Oakville, Parks and Open Space Department, Conservation Halton, Wellington County Green Legacy Program, the Neighbourhoods program of the Elora Environment Centre, and A.M.A.Horticulture Inc.

Outcomes

The project benefited Oakville's urban forest because students were involved locally in environmental stewardship by planting and caring for trees, and they gained a better understanding of the benefits of trees and their care and maintenance. Trees planted adjacent to schools or in nearby parks contributed to enhancement of ecosystems and provided additional environmental benefits. The program resources, learning materials, and seedling growing logistics that were developed and tested can be used for program continuation in future years. This program worked well in connecting indoor presentations to outdoor eco-actions, and providing valuable interconnected learning opportunities for students. Teachers sought the programs because Oakvillegreen provided environmental education that teachers alone could not easily provide. The programming was modified according to students' grade level and interests and allowed student-driven action component that was supported by Oakvillegreen, such as invasive species removal, litter pick-up or mulching.

To measure outcome, we performed an evaluation survey (Table 1) with teachers participating in the program. We also looked at metrics (Table 2), social media engagement, case examples, quotes, photos and other informal feedback. We have surpassed our initial target of reaching out to 500-1000 students and reached 1,230 students. Many of the related social media posts had higher engagement than average. Through the program we were very successful in engaging various school groups and multiple grade levels as well as community youth groups, such as Scouts groups, a youth leadership group and a youth hockey team.

Satisfied with the program delivery	Program being age appropriate	Relevant to Ontario Curriculum	Increased participants' environmental awareness	Students were more encouraged to protect the urban forest
100%	100%	80%	100%	100%

Table 1. Evaluation survey results offered to participating schools in the Be an Oakville Tree Hero Program

# of students reached	# of school presentations delivered at schools	# tree walks led with students and youth groups	# of trees started from seed at schools	# of tree planting and stewardship events held with school groups	#of trees planted
1,230	31	21	383	5	200

Table 2. Students, presentations, tree walks, trees started from seed, tree planting events, and trees planted

“Thank you for sharing your tree knowledge and expertise with our children and adults! We have all come away knowing something useful, whether it be about the dreaded buckthorn or the pretty tulip tree.”

4th Trafalgar Scout Group

“We thoroughly enjoyed our visit from Oakville Green today! Our students were very engaged and learning!”

St. Mildred’s-Lighbourn School

Key Learning and Next Steps

Successes: *Be an Oakville Tree Hero* program has struck a very positive response within the Oakville schools. Both teachers and students particularly liked the fact that the focus of the program is on the local urban forest, the threats it faces and the actions that could be taken locally. There was a big demand and interest in the hands-on planting activity. For this activity we supplied native tree seeds from the following species: red oak, bur oak, red maple, and eastern redbud. Germination rate was high with the red oak, bur oak and red maple, and not as successful with the eastern redbud. Monitoring and comparing the growth has been a key learning feature for the students as well as our staff.

Challenges: Seedlings are a small size after one season, so the odds of survival in high traffic school areas are lower than if they were planted in a private yard or within a woodland setting. However, the “slow” rate of growth while in student care, emphasizes that larger trees cannot be taken for granted ~ Lesson: trees take generations to grow into a mature tree canopy!

Future: For future projects we would seek potential partnerships among high schools with greenhouses, so seedlings could benefit from longer growth times before planting out. As continuation of this program, a monitoring protocol for already planted trees could be developed and distributed to participating students so they can continue maintenance and citizen-science monitoring as part of their environmental stewardship activities. There is potential to create instructions and incentives for students/schools to implement a school wide Mulchfest - could add value to students’ learning and promote ongoing tree care maintenance principles.

