



Bee the Change

There is a hive of Deep Learning happening at Bessborough School. When Nick Mattatall, principal, and his lead team attended the NPDL Capacity Building Institute, they were inspired by a Deep Learning task that was conducted in a Grade 3 class more than 1,200 miles away. That task encouraged students to embrace competencies like Citizenship, Collaboration, and Critical Thinking by exploring the dwindling bee population.

Mattatall and his team examined the task and redesigned it for their school.

Grade 6 teacher Julie Gautreau asked the students how they could protect the bees. The students buzzed with ideas. She says, "When the students realized that one third of everything we eat comes from pollinators, the students decided that they had to do something to raise awareness." So, the class set off to conduct research and communicate their learning. They created 3D models, Minecraft bee hive tours, and bee hotels. They led a showcase to parents, partnered with other classes, and even replicated bee dances using Spheros (a robotic sphere). All students, even those struggling with attendance issues, were excited about the learning. Gautreau says, "The students were fully engaged. . . . This was their baby! My role as a teacher changed!"

Another class learned about the UN 17 Sustainable Development Goals and collected more than 20,000 single-use plastic bags and applied a design process to prototype something useful. Students got creative and made mats, chairs, kites, hair accessories, flip flops, kites, and lamp shades. They even made plastic bag clothing and hosted a fashion show for the rest of the school.

Soon, the whole school was stung by the Deep Learning bug. In the following year, Mattatall led a schoolwide gardening day involving partners from Tree Canada. They transformed their school grounds by planting fruit trees, berries, rhubarb, tomatoes, and flowers. Fruits and vegetables were then shared with their neighbours and foodbanks and used in the school's breakfast program. The students made bi-weekly floral deliveries to the local seniors' residence. Seeds were harvested, dried, and used in bird feeders. Families watered the gardens through the summer months. The schoolwide Deep Learning experience quickly evolved into communitywide engagement and learning.

Throughout these Deep Learning experiences, the Bessborough teachers fulfilled the curriculum expectations. For example, in Grade 7, students learn about sustainability. In Grade 4, students learn about habitats. And, math was not forgotten. Mattatall explains, "Some classes took a field trip to the local apiary and learned about bee keeping. They learned how to make algorithmic calculations to maximize pollination. Talk about real-life math!"

They say that when a bee finds a good source of nectar, it returns to the hive and does a "waggle dance" to communicate its location to its bee peers. In the New Pedagogies for Deep Learning global network, this example gives rise to our own kind of "waggle dance" and encourages all of us to be the change we wish to see for all kids in the world.

"Failure should not be the end. It should be the beginning of the learning." Student

"This challenge was a great opportunity for creative people to thrive, but also a terrifying experience for noncreative people." Student