

# Success Story



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## Spongelab Interactive | Toronto

# Spongelab and OCE create a different “cellular” experience

## New interactive video game gets students excited about plant biology

“When an organization like OCE that is integrated with successful businesses and the evolution of technology in Ontario, says ‘Wow, that’s fantastic, we want to get involved,’ there’s no greater endorsement.”

Jeremy Friedberg  
Co-founder  
Spongelab Interactive

With video games so entrenched in youth culture, Spongelab Interactive believes their appeal as well as their interactive component should be harnessed for the classroom. So instead of blasting aliens, the Toronto-based company has designed an educational video game that gets students excited about biology.

Spongelab has created Genomics Digital Lab: Plant Cells (GDL), the first in a series of GDL games that cover and integrate connected topics in biology [www.genomicsdigitallab.com](http://www.genomicsdigitallab.com). GDL: Plant Cells teaches students about what a plant needs in order to survive and thrive. It’s a much-needed tool for Ontario classrooms, believes Jeremy Friedberg, a former teacher, and one of Spongelab’s founders.

“If you look at biology as a whole, students are uninspired,” he says. “And this seems to filter across all science courses – we’re seeing a drop in enrolment. For cell biology, it boils down to the fact that we’re trying to teach three-dimensional concepts with two-dimensional tools,” says Friedberg, who holds a PhD in molecular biology and molecular genetics.

In designing GDL: Plant Cells, Spongelab first held extensive discussions with teachers and students and learned that there were no digital resources to support teaching plant biology for Ontario teachers (and other regions).

Filling that gap, GDL: Plant Cells uses colourful three-dimensional graphics to create a virtual lab that allows students to alter the plant’s environment (air, light and soil) and then venture

into the plant’s cellular processes, such as converting sunlight into energy. Through different levels and challenges, a student can literally watch the plant come to life cell by cell.

With Spongelab’s games mirroring OCE’s efforts to instill passion for sciences in Ontario’s students, OCE supported Spongelab by investing in the company’s development and supporting promotion and marketing initiatives through its Science and Technology Awareness program. “Just as importantly, OCE reaffirmed what we were doing would make a difference,” says Friedberg.

The game is as flexible as it is fun. Some teachers use it as a demonstration tool. Others let their students learn and fend for themselves or divide their classes into groups with teams responsible for the nucleus, chloroplasts and mitochondria, for example.

The game is also designed to spark broader discussions about how plants are intertwined with our environment. Friedberg envisions the game being the perfect segue for larger discussions about how plants affect the air we breathe, the food we eat and the fuel we use to power our cars.

GDL: Plant Cell’s popularity was powered solely by word of mouth. With no formal marketing or promotion, the game already has close to 200 users across 22 countries. “Teachers are saying, ‘This is incredible, I want more,’” says Friedberg.

