



# genomics digital lab: plant cells

Overview

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## Overview for Administrators

Genomics Digital Lab: Plant Cells (GDLpc) is a premiere computer application and computer game that gives you an 'inside' look at general plant physiology. It does this in two ways. Firstly, by allowing students to use the computer as a 'digital microscope,' they can understand the anatomy of a plant on a cellular level. GDLpc gives students an overview of the function of the three major plant cell organelles and how they interact with each other to produce a healthy plant. Secondly, our 'virtual laboratory' allow students to self-discover the basic environmental requirements for plant sustainability. Students can adjust environmental conditions such as soil liquids, gases, and light on the fly, and immediately see its effect.

GDLpc is wonderful tool to incorporate into your teacher's classroom or school computer lab. Not only does it give students a visual approach to a sometimes abstract topic, but it also allows you to keep students interested by incorporating educational games and computer technology into your educational approach. Using the GDLpc in conjunction with regular classroom instruction will provide students with a greater understanding of plant biology, giving them the necessary tools to excel in both this unit and the remainder of your course, while helping to reinforce their computer skills.

The GDLpc has been developed by a team of scientists, educators, game designers, and experts in the field to solidify key concepts taught in the biology classroom.

To help with integrating GDL into your classrooms, we include a number of teaching assets. In the package you will find:

1. Detailed lesson plans for GDLpc based on the current Ontario curriculum and organized by grade and academic level.
2. Tips and strategies on how to successfully teach to different levels of student ability.
3. Grade appropriate quizzes to reinforce the ideas presented within the GDLpc.
4. Activities and labs that can be used to reinforce content and provide you with much needed alternative assessments.
5. Additional teaching assets to help integrate GDLpc into your current teaching approach.