

Mission: Integrating a Living Organism into the Montreal Biodôme

Activity developed at Collège Lionel-Groulx

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Students are invited to respond to a fictitious request for proposals from the Montreal Biodôme, asking them to analyze the potential of integrating a new living organism into one of the ecosystems in the current exhibition. Students divide into teams of three or four to create a company that will determine the potential of integration of a new species into the Biodôme. They will respond to the request for proposals by submitting an analytical grid (list of requirements). The Biodôme selects a company (it actually selects them all!), and assigns it a specific living organism. Each company will study the possibility of introducing that organism into one of the ecosystems in the exhibition. To this end, each team must formulate a hypothesis about the possible introduction of the species, and find out about the natural niche environment of the living organism. Afterwards, they verify the potential of integrating it into an artificial ecosystem by visiting the Biodôme and meeting with on-site specialists. Results of this assignment are submitted as part of a mini-conference, via oral presentations using PowerPoint slides, as well as in a research file. Students are evaluated by the teacher and their peers.

While field trips are difficult, the Biodôme is a very interesting option to provide a hands-on learning experience in ecology. The activity brings students to understand the main concepts specific to ecology in an active and concrete setting, discover the Biodôme, and recognize it as a natural heritage conservation site. The originality of the activity lies in the students' self-directed approach, where they are required to organize their work and schedule for four weeks. Regular tutoring sessions with the teacher help verify the teams' approach and keep track of their progress.