Murphy recommends reducing mental and physical stimulation after a concussion and a gradual return to school and sports. Rest allows the brain to heal, he says, and once the symptoms of a concussion have subsided, the patient can begin to reintroduce daily activities in small intervals with rest breaks in between.

"This also involves stressing the importance to kids of being able to return to school without symptoms first, before trying to play in a hockey or soccer game."

many different careers," says Ann Vandergust, one of the event's organizers and a research assistant in the Department of Chemistry. She says students often drop science courses in Grade 11 or 12 when they are no longer mandatory, but they may not realize they need science to pursue various types of careers.

"We try to keep the doors open as long as possible, so when they're making decisions about college or university they have those courses," she adds.

Students also develop skills they can apply to their future careers, regardless of whether they pursue science.

"Problem solving, leadership, critical thinking skills — those are the keys to success no matter what subject or career they end up pursuing," says Vandergust.

Stefan Weber

Biologist Helps Protect Rare Plants

As urbanization encroaches on natural habitats, Stefan Weber is trying to help prevent rare plants from becoming even scarcer. He works as a restoration biologist at St. Williams Nursery & Ecology Centre in St. Williams, Ont., where he manages more than 100 acres of grasses and wildflowers. The seeds from these plants are being used to restore natural areas.

"There's a huge demand for native plants and restoration," he says. The largest project he has worked on so far is phase one of the eastern expansion of Highway 407, which runs south of the environmentally sensitive Oak Ridges Moraine. Working with the Ministry of Transportation and the Ministry of Natural Resources, he's helping to restore one hectare of land for every hectare that is paved for construction.

Before restoration can begin, Weber must first conduct a site assessment to evaluate soil conditions, moisture levels and topography. He also looks at the types of plants that are growing in the surrounding area and consults regional species lists, herbarium records and seed-zone guidelines to determine which plants are the most suitable for the area. The site is then cleared, and the soil is tilled and seeded mechanically or by hand.

"The hardest part is to restore plants that don't produce a lot of seed in the wild," says Weber, B.A.Sc. '09 and M.Sc. '11. Some plants such as serviceberry are in such high demand that they can't be propagated fast enough.

Growing plants from seeds rather than stem or root cuttings promotes genetic diversity, he adds, which helps plants adapt to climate change and other threats. Urbanization is one of the biggest dangers facing rare plants. "Every square inch of southwestern Ontario is a managed human environment," he says. "We have to actively manage and restore these landscapes as natural habitats."