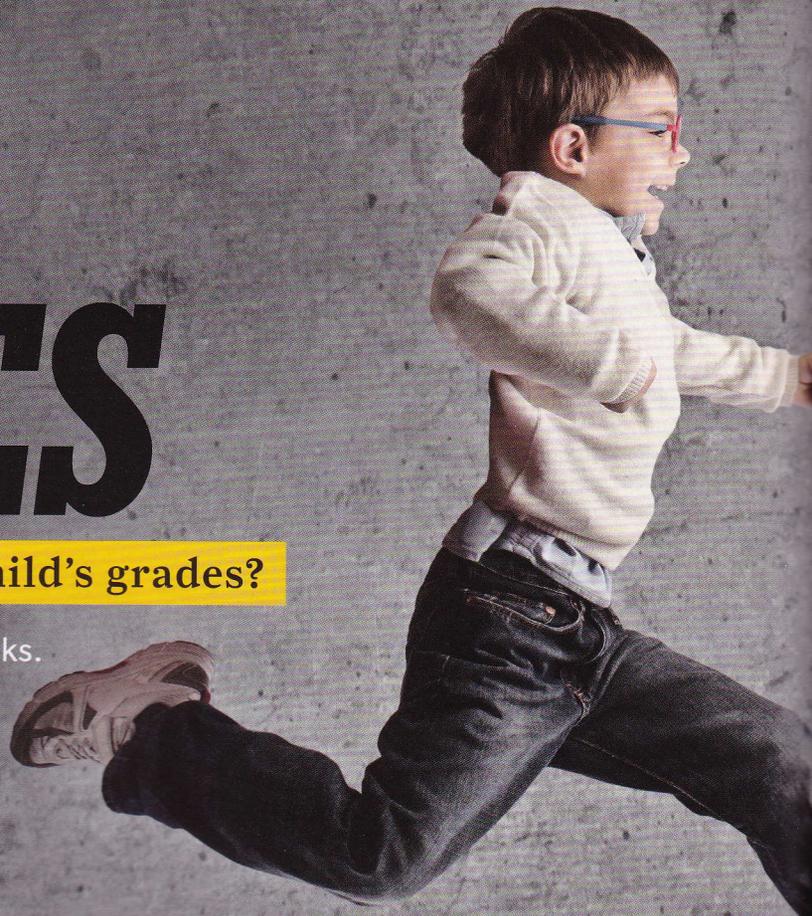


# SMART MOVES

Want to improve your child's grades?

Try hitting the gym instead of the books. Research shows it could be a great way to help your child succeed in school.

BY LISA EVANS





**if**

**you were to peek into Jennifer King's** Grade 3 classroom at St. Gabriel Catholic School in Ottawa, you'd likely see students running in place beside their desks, flinging their arms around while dancing to upbeat music, or stretching their fingers up to the sky in yoga-like postures.

Jennifer is among a growing group of educators who have found daily physical activity (DPA) is the key to learning. She is using Go Noodle – an online application that provides two-and-a-half to three-minute bursts of physical activity or “brain breaks”. Jennifer credits the blood-pumping activities with changes in attitude, behaviour and even academic performance in her 18 students. “When they come back to their desks after a Go Noodle session, it’s as though they’re looking at their work with fresh eyes,” she says. Jennifer has seen her students’ grades improve since introducing physical activity. “They’re more alert and engaged so their scores are going up,” she says. Behaviour problems have also been alleviated. Students who previously would have begun acting out when bored or frustrated now approach her and ask to put on a Go Noodle. “They’re recognizing that this helps them to focus,” she says.

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## THE SASKATOON SOLUTION

### treadmills in the classroom

While working with a group of high-risk students at City Park Collegiate in Saskatoon, special-education teacher Allison Cameron decided to introduce physical activity into her classroom to help deal with some of the behavioural issues she was facing. The goal of her program, called Movement Matters, was to help kids find the focus they needed to stay engaged in class. What Allison discovered was spectacular – not only did students' behaviour improve, their grades did, too!

Allison first recognized that physical activity impacted behaviour when she was asked to deal with a Grade 7 student who was kicked off the school bus for fighting and inappropriate behaviour. The boy's mother had to drop him off at school early each morning on her way to work. Not knowing what to do with him for the hour before school started, Allison, a cross-country coach, asked him to run with her before class. Soon after, she noticed improvements in the boy's behaviour. "He was more focused in class and he was calmer," she says. When other teachers began commenting on the boy's improved classroom performance, Allison wondered if it was connected to his morning runs. She put together a spreadsheet of all of the kids on her cross-country team and asked teachers how these kids were performing academically. "Even for the kids who didn't have behaviour problems, staff were reporting that things were better on the days when we did these runs," she says.

The next year, Allison began taking her classes on walks and runs daily. The result? Her students performed better on their academic tests and the class' graduate rate increased. "My graduation rates that year were the highest I'd ever had," she boasts. Allison knew she was onto something. She relocated desks to make room for donated treadmills and stationary bikes and put her Grade 8 class on 20 minutes of cardio three mornings a week (corresponding with their English class) and strength training the other two (corresponding with their math class). Only once their blood was pumping did Allison ask them to crack open their books. Suddenly, kids who used to have trouble concentrating were turning in completed assignments. "Students who weren't able to sit still or stay awake were now focused for three hours. Their general demeanour changed. They were much more pleasant to deal with," says Allison.

Devon Nagy, now 20, was one of Allison's first students to use the treadmills. "I think I told her she was crazy," he says, recalling the first day Ms. Cameron asked him to run on a treadmill in English class. Devon's opinion of the treadmills quickly changed once he saw his grades improve. "I was getting 50s and 60s before they brought in the treadmills. After, my grades went up to the 80s," he says.

Devon wasn't the only student whose grades improved. Allison says some progressed six full grade levels in reading and writing. The remarkable success of her Movement Matters program attracted the attention of teachers across North America and has now been rolled out in over 100 schools.

More and more, teachers are realizing that hitting the books for hours isn't the path to academic success, and they have a mountain of research to back up their claims. A 2013 study at the University of Illinois showed that kids who participated in aerobic fitness were better able to recall a list of names and locations on a map of a made-up region than students who sat at their desks. Another recent study in the *British Journal of Sports Medicine* found students who engaged in moderate to vigorous physical activity had better academic performance in math, science and English. Girls, in particular, saw huge gains in their science scores.

Perhaps the greatest proof that academic performance is enhanced by physical activity is a 2009 study out of the University of Gothenberg in Sweden. Researchers examined 1.2 million boys over a 26-year period. At age 15, the boys were evaluated aerobically, their IQs were measured and they were asked

to write cognitive tests. When they were re-evaluated at age 18, the researchers noticed IQs and performance on cognitive tests were higher for those boys who had improved aerobic function. Those who did not improve their aerobic function saw their IQs and performance on cognitive tests either stay the same or actually decrease – suggesting the lack of aerobic activity made them less smart.

Years later the researchers evaluated the same boys as adults. Men in the group who had improved their cardiovascular function had gone on to earn more post-secondary degrees and had a higher socioeconomic standing than the group who had lower scores on their aerobic tests at 18.

### CAN EXERCISE REALLY MAKE KIDS SMARTER?

Dr. John Ratey, professor of psychiatry at Harvard Medical School and author of *Spark: The Revolutionary New Science of Exercise and the Brain*,

says yes. He likens exercise to fertilizer for the brain. "When we're exercising, we're using more of our brain cells than in any other activity," he says. Exercise creates an environment that optimizes brain function – just like a fertilizer – by causing brain cells to grow and new cells to form.

After reading several studies probing the link between exercise and smarts, Dr. Ratey began the Sparking Life non-profit organization, which aims to restructure physical exercise practices in schools. He says fitness for learning differs from regular gym class, which tends to focus on competitive sports. In the Sparking Life program, students' heart rates are raised up to 65 percent of their maximums for 20 minutes in the first period of the day, causing brain cells to be recruited and neurological connections to be strengthened in a way that prepares the brain to learn new information. "After exercise, your attention system is better, your impulse control is better, your anxiety is lessened and your general feeling of well-being is better," he says.

Stephen Berg, an assistant professor at the University of British Columbia who specializes in education, argues physical education is just as important as math and worries when he sees studies such as the "2014 Active Healthy Kids Canada Report Card on Physical Activity for Children and Youth". Canada received a D-minus for overall physical activity; only seven percent of five- to 11-year-olds and four percent of 12- to 17-year-olds get the recommended 60 minutes of moderate to vigorous activity daily.

"We hear a lot about how we need more language arts or that we need more math," says Stephen. "I'm not saying we don't, but I'm advocating that physical education is equally important." ○

Lisa Evans is a Toronto-based writer, cyclist and yoga student who finds a good workout makes writing easier.

Learn more about being active at [ParentsCanada.com/activekids](http://ParentsCanada.com/activekids)

## TOO BUSY TO BE ACTIVE?

### USE TECH TO YOUR ADVANTAGE

Download programs such as Go Noodle to use at home. Jen Stuart, a parent at St. Gabriel Elementary in Ottawa, began using Go Noodle at home with her two kids after hearing about the success of the program in Jennifer King's classroom. "It's a better break for them than watching TV," she says. Websites such as Go Noodle can be used to break up homework time, giving kids a brain boost when they get stuck on a problem.



### ENCOURAGE VARIETY

Provide a variety of physical activities to keep kids engaged in being active. This doesn't mean you have to pack your child's schedule with organized activities. Twenty minutes of jumping rope or going for a jog around the block is enough to get kids' hearts pumping and brains working so they'll have no problem plowing through that homework pile.

### WALK OR CYCLE TO SCHOOL

Most of us remember the days when we walked or cycled to school, yet today, 62 percent of Canadian parents admit to driving their five- to 17-year-old kids to or from school every day, according to the 2014 Active Healthy Kids Canada Report Card. This past May, the Toronto District School Board held its first Bike to School Day to encourage active transportation. Other school boards and cities across Canada have also held similar Walk or Bike to School days to allow for some extra activity in kids' school days. If you don't live close enough to your child's school to walk or cycle the whole distance, consider parking a few blocks away and walking the rest.