

REGION OF WATERLOO GRADE 3 CURRICULUM SUPPLEMENT *YOU CAN CLEAR THE AIR*

PROJECT OBJECTIVES:

- encourage children and their parents to evaluate the way they travel (to school and for other trips) and make the wisest travel choice;
- help children to see how choices about transportation and land use affect how their community looks and works;
- introduce children to using public transit; and
- foster the development of environmental and health-driven travel choices early in a child's development.

RESULTS:

- to date nineteen Grade 3 classes including 488 students have heard the messages delivered as part of *You Can Clear the Air*;
- strong working relationships have been built between the Region's TDM program, Grand River Transit (GRT), and local school boards, with all of the project partners excited to work on the next curriculum initiative (Grade 5);
- the media continue to be very supportive of the project;
- community awareness of transportation and land use issues has increased; and
- teachers have a tool to teach environmental stewardship.

PROJECT COMPONENTS

Teacher's Guide includes exercises, games, resources, black line masters (for copying), draft letters to parents and a possible assessment tool as well as:

- background information on greenhouse gas emissions, climate change, air quality, health impacts of transportation, web links and a student reading list;
- activities like "Put a Sock on it" (a tailpipe that is) and constructing "Pollution Catchers" to demonstrate what gets in air and how;
- instructions on how to book a GRT Tour which brings a GRT bus with Facilitator and Driver to the school to deliver an in-class segment on transit use and safety, followed by a bus tour of their neighbourhood where the children discover the traffic and land use impacts of transportation choices;
- family Travel Audit tool to record current travel choices over a 7 day period and identify opportunities for behavioural change;
- Eco-tracking exercise to monitor walking and cycling trips to school;
- a culminating task that asks students to educate others about what they learned;
- information on how to submit children's artwork to "Our KIDS Say...TravelWisely" – a promotional campaign which uses results of the culminating task exercise and places the students artwork on the exterior advertising boards of GRT buses and in other Regional publications; and
- a promotion plan to keep the program "top of mind" for teachers.

PROJECT BACKGROUND

The project was initiated by the Region of Waterloo as a way to educate the community about the issues related to the use of automobiles for an ever increasing number of trips and help them to make a shift to appropriate choices. Since travel behaviours are often well established by the time children reach driving age (16 in the Province of Ontario) the intent is to raise a community that is much more aware of the impacts of their travel choices.

Like most medium-size communities, Waterloo Region has been noted as having poor air quality, increasing traffic congestion, and worsening incidences of obesity and asthma – aspects of urban environments that have become associated with excessive automobile use. As a way to move toward more sustainable transportation, the Regional Transportation Master Plan update in 1999 proposed an auto reduction strategy which will be accomplished through transportation demand management (TDM) strategies focusing on public transit enhancement, cycling and pedestrian facilities and TDM supportive land uses. It targets a 7% reduction in the percentage of future total trips made by autos by the year 2016 and identifies educating the public regarding auto reduction and TDM initiatives as a key step in reaching the goal.

Principal activities undertaken to implement the project included:

- gaining stakeholder buy-in to the project, including Regional Council, the two local School Board, teachers, as well as GRT management, marketing, drivers and maintenance staff;
- development of the original draft unit by the project partners;
- piloting the draft unit with a group of teachers (19 volunteers);
- gathering feedback from the teachers during the pilot and using it to adjust and improve the content and design, and to help market the program to other schools and teachers;
- launching the program Region-wide by ensuring resources are easily available and the program details are easy to understand; and
- monitoring and revising the program as it continues to be implemented.

INNOVATION

The *You Can Clear the Air* grade 3 curriculum supplement is innovative for the transportation field by its approach to project development. The working group consisted of Program Coordinators from each of the School Boards (Waterloo Region District School Board and the Waterloo Catholic District School Board), Regional transportation planning staff, Grand River Transit (GRT) staff (owned and operated by the Region), and an environmental educational consultant – most of who would not consider themselves “working in the transportation field”.

In this regard, there is also the issue that typically the message about using travel options is brought to the community by government bureaucrats, who tout the “greater good” and “making decisions like the environment matters”. In the case of *You Can Clear the Air*, the message is coming from teachers – leaders in the community who have the opportunity to expose their students to new concepts and different ways of thinking. Some would say this technique is a unique application of community based social marketing – a concept identified by experts as a significant tool in behaviour change. And by partnering with the School Boards, not only is the message brought directly, but it is brought to a much larger audience than the Region could reach on its own.

The project does not stop at simply educating about the reasons “why” walking, cycling and taking transit are wise, it includes tools to foster behaviour change. Materials are provided that

allow students and their parents to identify their current travel choices, discover ways to reduce their impact on the air and the community, and encourages them to make a change.

Finally, the project had a much greater impact than just educating the students and has created an environment dramatically different from the typical educational process. In this case, the students educate their parents about the benefits of wise travel choices and the impacts of high automobile usage and single occupant vehicles – an approach used in water conservation and waste management, but not witnessed in the transportation field.

PROJECT SIGNIFICANCE FOR WATERLOO REGION

Early discussions identified the Province of Ontario curriculum provided few opportunities to deliver messages about environmental stewardship. Yet with a quick review of the guidelines, several curriculum strands were identified where messages about sustainable transportation could be delivered, including grade 3 social studies, math and physical activity. A scan of other educational initiatives across the country identified that approaching this age group in such a comprehensive manner had not as yet been achieved.

The significance of this project also lies in the possibilities it presents, including:

- a heightened awareness and level of commitment to reduced auto use;
- a greater sense of environmental stewardship among teachers, students and their parents, which transcends beyond how we treat our air, to our forests, our streams and each other;
- a greater sense of tolerance for people taking different modes of transportation;
- tremendous personal health benefits achieved by walking or cycling to school;
- increased transit ridership;
- a greater awareness of their neighbourhood and how the students relate to it;
- improved safety during the trip to school and conditions in front of schools; and
- to date, 488 students have heard the messages delivered as part of *You Can Clear the Air*. If only 10% of these students make a change to their travel habits, even just for the trip to school, an estimated 750kg of emission equivalents would be kept from the air we breathe every school year. If these habits spill over into other trips made, the impacts of reduced greenhouse gas emissions are even more significant.

Developing this tool also dramatically increased the awareness of TDM in Waterloo Region and let the school system know they have access to a champion who can assist them and/or lead initiatives to reduce automobile use. Some schools have even carried the theme of “being good to the earth” throughout the year with school skits and pageants.

This project supports the Regional Official Policies Plan, the Waterloo Region Clean Air Plan, and the GRT 5-year Business Plan, which identify increasing the awareness of the benefits of public transit aimed at increasing ridership. It also contributes to the Region’s Sustainable Growth Strategic Direction which says: *to provide and enforce strong, effective policies that ensure responsible and sustainable growth which recognizes the varying needs of our urban and rural citizens and communities*. And finally, the program will also assist the Region to achieve the “compact urban form which encourages transportation choices”, identified in the recently adopted Regional Growth Management Strategy which identifies where, when and how future residential and employment growth will be accommodated.

The community will continue to hear about the project. Each year, the Region will prepare a press release announcing the winners of the “Our KIDS say...TravelWisely” initiative, use the culminating task materials in the GRT bus board campaign and other Regional publications and continue to spread the message about wise ways of travel.

LESSONS LEARNED

Many components worked well, with the key ones being:

- achieving senior management buy-in at each organization early on and keeping them informed enabled the project to move through any “sticking” points;
- forging strong partnerships for this project positively impacts future possibilities (including future planned grade 5 and 8 programs);
- champions create other champions in the community who together have a greater impact on affecting behaviour;
- take-home exercises ensured parents would hear the message, but often the students shared their excitement for the topic early in their learning; and
- using similar graphics throughout ensured product recognition for all parties.

Some components were considered points to grow on, including:

- the walk and bike to school activity was not widely tested during the pilot as a report of a local incident around that time heightened the concern about child safety in the community;
- teacher input is critical to achieving a product that will be used in the classroom, but due to teacher workload, lengthy time periods are needed to achieve their feedback;
- newspaper clippings were included in the pilot unit, but since teachers and students want to stay current, such resources should instead continually be posted on the Board servers; and
- the information session provided by the GRT facilitator and driver was first conducted outside by the bus. Once the children queued to board the bus it was difficult to gain their attention for any learning experience and was later moved to inside the classroom.

SUSTAINABLE PROGRAMMING

In June 2003, a hard copy of the *You Can Clear the Air* Teacher’s Guide was catalogued in the teacher resource library at each elementary school in the Region. The binder format allows for easy access for copying purposes. A digital copy of the Teacher’s Guide can also be downloaded from the two School Board servers (including any updates) and manipulated further to meet individual teacher/student needs. Once a year, teachers are invited to attend a workshop to discover more unit details and are given a personal copy of the materials on cd-rom. A communication plan has been established to keep teachers aware of the unit, but the best tool has been word of mouth.

The program is comprehensive in that the main messages are delivered several times:

- in the classroom during activities and exercises of discovery;
- at home during the family travel audit;
- by parents organizing group walks and bikes to school accompanied by a parent/guardian or older sibling;
- in the classroom during a mapping activity using GRT maps (30 laminated copies are provided to each school board);
- to parent volunteers who accompany the class and teacher on the GRT bus tour event; and
- in the classroom and at home when the take-away package is distributed at the end of the school day – including an activity book, a “Be Safe and Be Seen” reflector button, and a GRT magnet for easy posting of a bus schedule.

You Can Clear the Air is a significant change from previous curriculum projects undertaken by the Region. By moving away from a complete curriculum to a “curriculum supplement”, costs were reduced from \$75,000 to a budget of \$25,000 for initial project development and implementation (over approx. 18 months). For other communities looking to implement the unit in their school boards, the costs would be significantly less.

Operating budgets are provided for ongoing project costs which include the student take-away package and the annual update of GRT map sets, while the rest are in-kind services. If all of the over 300 grade 3 classes in the Region signed up for the GRT Tour, additional resources would be needed.

Further, since the unit consists of a series of optional exercises, additions to the program can easily be made. In fact, plans are already in place to introduce an additional learning tool called a “Resource Lab” which is an interactive tool for children to learn about the Federal Governments upcoming One Tonne Challenge, including the messages about wise transportation choices.

ENHANCING SUSTAINABLE TRANSPORTATION IN OTHER COMMUNITIES

The interest that the project has generated to date among TDM professionals suggests the project fills a need identified in other communities across Canada and will have a broader impact on these common problems. The program can be easily transferred to other communities with a smaller subset of individuals but by establishing similar partnerships. Applications outside the Province of Ontario would require a review to confirm links exist with mandatory curriculum requirements. The Region of Waterloo continues to share this valuable resource with other communities and has created a brief document to guide use of the resource outside of the Region. Thus far, the results have been inspiring. All project stakeholders are excited about the opportunities the project created and continue to be champions, the media continue to be very supportive of this initiative and most importantly, the unit has been embraced by teachers and students.

APPENDICES

A – The GRT Bus Tour

B – Community Reaction

C – Teacher’s Guide