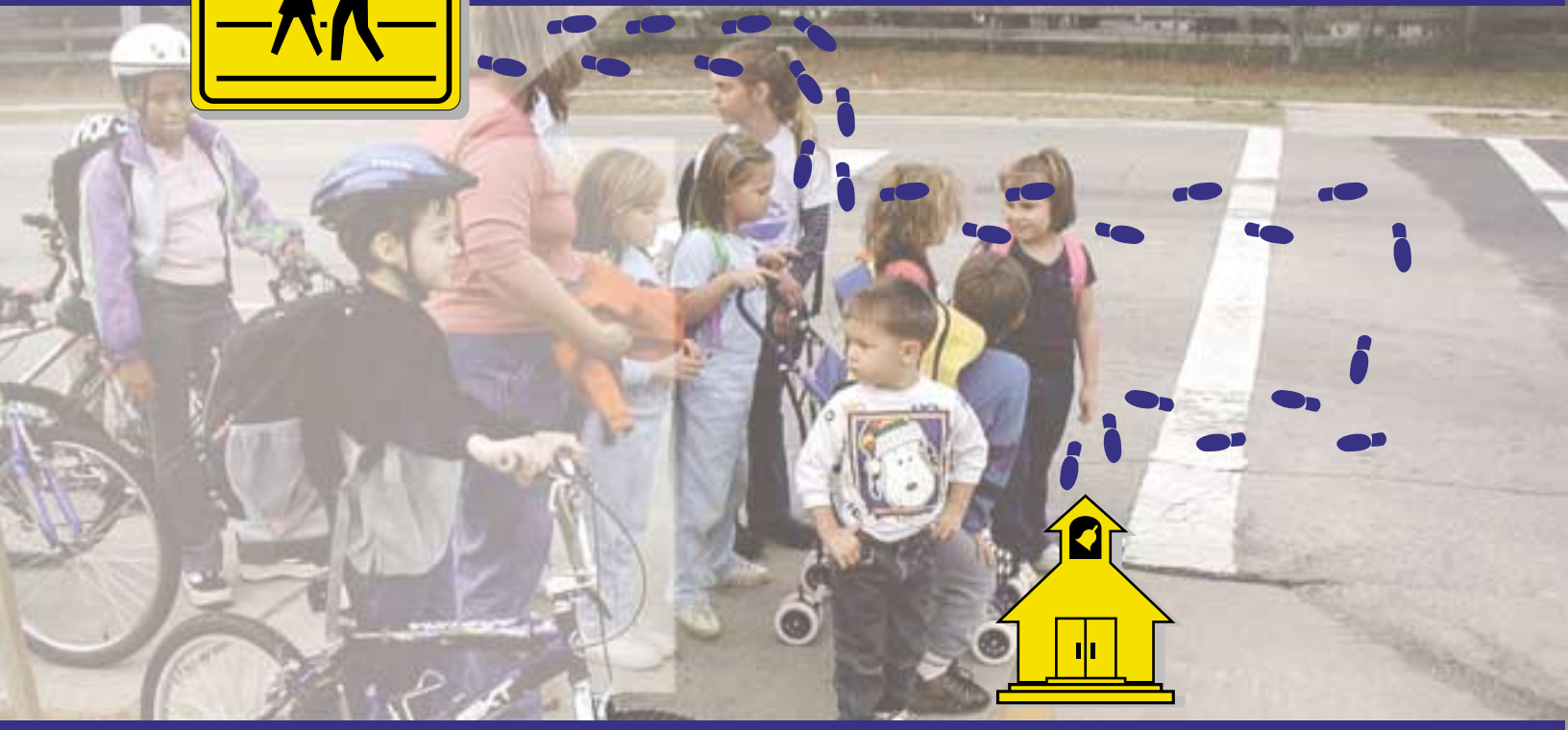
# SAFE ROUTES TO SCHOOL









U.S. Department of Transportation
National Highway Traffic Safety Administration

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# Overview

## FOREWORD

In August 2000, the Marin County Bicycle Coalition and Walk Boston, with funding from the National Highway Traffic Safety Administration (NHTSA), began to develop a national model Safe Routes to School program. Congressman James Oberstar, the ranking Democrat on the Transportation and Infrastructure Committee in the U.S. House of Representatives, endorsed the program as a means to reduce traffic congestion around schools and promote healthy alternatives.

Marin County is a picturesque community north of San Francisco with numerous historic small towns and miles of open space. Despite its low population growth, traffic congestion has grown increasingly worse with 21 percent of the morning commute resulting from parents driving their children to school.[1] In fact, surveys indicated that 73 percent of students commuted to school by car; 14 percent walked; 7 percent biked; and 3 percent arrived by bus.

To demonstrate the benefits of the Safe Routes to School program, the Marin County Bicycle Coalition recruited nine pilot schools in four locations. Each school received guidance, forms, newsletters, and other promotional materials. In two jurisdictions, schools were grouped to form citywide Task Forces to study engineering solutions to increase safety on routes to schools. A transportation engineer was hired to assist in developing these plans. Every school held periodic Walk and Bike to School Days and participated in the Frequent Rider Miles contest which rewarded children who came to school walking, biking, by carpool, or by bus. At the end of the pilot program there was a 57 percent increase in the number of children walking and biking to school and a 29 percent decrease in the number of children arriving by car (those not in a carpool).

This toolkit resulted from the experiences of the Marin County pilot program and from other Safe Routes to School programs in the United States, in the Canadian province of British Columbia, and in the United Kingdom.

We offer this toolkit to others who wish to start a Safe Routes to School program in your school or community.

Wendi Kallins
May 2002

*1. Marin County Congestion, a report by the Marin County Congestion Management Agency, January 2002.*



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# Overview

## INTRODUCTION

Did you walk or bike to school when you were a child? Thirty years ago, more than 66 percent of all children walked to school.[2] Walking or biking to school gives children a sense of freedom and responsibility, allows them to enjoy the fresh air, and provides opportunities to get to know their neighborhood while arriving at school alert, refreshed, and ready to start their day. Yet most American children are denied this experience; in fact, only 13 percent of American children walk or bike to school.[3]

Recent research indicates that 20 to 25 percent[4] of morning traffic is due to parents driving their children to school. As a result, traffic congestion has increased around schools, prompting even more parents to drive their children to school. The health consequences to our children and to the well being of the community are extensive. (See Resources.)

A successful Safe Routes to School (SR2S) program integrates health, fitness, traffic relief, environmental awareness, and safety under one program. It is an opportunity to work closely with your school, your community, and your local government to create a healthy lifestyle for children and a safer, cleaner environment for everyone.

## THE TOOLKIT

This toolkit has been designed to assist you in initiating and implementing a SR2S program. Many successful SR2S programs began with just one or two volunteers organizing a Walk and Bike to School Day, using the energy generated from a single event to build a SR2S program. Other SR2S programs were created through a community-wide Task Force organized by public officials to address traffic issues. There is no "right" way to start the program. Customizing your program to the needs of your community will ensure the success of your program but your chance of success will increase if you follow in the footsteps of the pilot programs.

Successful SR2S programs in the United States have incorporated one or more of the following approaches:

The Encouragement Approach uses events and contests to entice students to try walking and biking.

The Education Approach teaches students important safety skills and launches driver safety campaigns.

The Engineering Approach focuses on creating physical improvements to the infrastructure surrounding the school, reducing speeds and establishing safer crosswalks and pathways.

The Enforcement Approach uses local law enforcement to ensure drivers obey traffic laws.

Although each element can stand alone, the most successful programs have integrated elements from all four approaches. Each time the program is adapted, new ideas emerge. Use research data, innovation, and imagination to develop a program that best suits your school and community.

## HOW TO GET STARTED

### Who is Involved?

- *The Champions*

  Champions are individuals whose passion and enthusiasm will give life to the program.

*2./3. Kidswalk-to-School, Department of Health Services Centers for Disease Control and Preventions. 2000*
*4. Marin County Congestion Management Agency*

# Overview

The basic components of the Safe Routes to School program outlined in this toolkit are:

- Activities and Outreach
- Mapping the Routes to School
- Classroom Lessons

The overview section of this toolkit describes the basics of a SR2S program. The Promotions Toolkit provides ideas about events and contests, as well as other tips to generate interest in the program. The Safe Streets Toolkit helps you map routes to schools in your community and provides information on practices used to ensure traffic safety. The Classroom Lessons section provides ideas that will encourage students to reflect on their transportation choices and teach them basic safety skills. The toolkit also supplies you with sample SR2S forms, press releases, posters, and other resources.

Every SR2S program needs at least one champion. The champion can be a teacher, a principal, even a child, but usually the champions are parents who want to ensure a safer environment for their own children. Often they are avid walkers or bicyclists and set a positive example with their own travel behavior. Champions are the key organizers of the program, overseeing activities at their school and working with champions from other schools to share ideas.

- *The Safe Routes to School Team*
  A SR2S team, organized by the champion(s), consists of parents, children, teachers, principals, and neighbors of a single school. The team should seek to gain official school status, either as a committee of the PTA or as a part of the school's Site Council or Safety Committee. The team gathers information about their school through surveys and traffic counts, organizes incentive-based events and contests to encourage students to try new modes of transportation, and promotes the program through school newsletters and other means to reach parents and students.

- *The Safe Routes to School Task Force*
  SR2S teams within a common geographic area are often more successful and have a wider sphere of influence when they unite to form a community-wide SR2S Task Force. The SR2S Task Force should involve neighbors, city and school staff members, and elected officials. This community-wide Task Force can produce a comprehensive document for the whole community that can be easily reviewed and addressed by the public agency responsible for street improvements. This SR2S Improvement Plan can include recommended infrastructure enhancements to the areas surrounding the schools, increased traffic enforcement, and community education to promote safety.


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## Fitting a Team Together

The community-wide Task Force serves as an access point to these officials. If your program is not a part of a Task Force, notify city officials yourself. Officials from your local municipality are important partners because they can provide resources, are effective in building community support, and can influence policies that will lead to improved bicycle and pedestrian travel facilities. Contact law enforcement personnel, city council members, and public works and public health staff members and describe your plan to form a SR2S team and what you hope to accomplish through this program. Invite them to your first meeting and continue to keep them informed.

In your letters to these community leaders, outline the resources you need. Traffic engineers and the public works department can provide maps and help to evaluate the safety conditions near your school (See the Safe Streets Toolkit). Law enforcement can patrol your event and provide safety training for the children. Elected officials can help make key decisions and build community support. Tell these partners how their efforts will meet their department's goals, that it will be a useful public relations tool, and will improve the health and safety of the community.

Your program should involve the following stakeholders:

- Parents
- Students
- Teachers
- Neighbors
- School Staff Members
- City or County Staff Members
- Elected Officials
- Businesses
- Community Groups
- Law Enforcement/Crossing Guards

## Create Agreements

It is important to have the cooperation of all agencies responsible for implementing a SR2S program. Get partnership agreements from your local municipality, the school board and principal of your school (see Resources for samples). These agreements should indicate that the agency supports the program and will participate by providing staff resources. City governments need to provide police enforcement for events and enlist the cooperation of the public works department in mapping the routes and identifying safety improvements. The principal and school board need to set aside some class time for the program and be willing to help promote events and contests.

## Collect Information

The first step for any SR2S program is to collect your baseline data through surveys and traffic counts (See Promotions Toolkit for details) to learn how students currently arrive at school.

Student surveys will enable you to determine how children get to school. A quick daily show of hands during homeroom is often enough to get a feel for student travel habits at your school.

Traffic counts will supplement this information by determining how many vehicles enter school grounds to drop off children.

Parent surveys measure attitudes and identify obstacles and opportunities for changing behavior.

Traffic and crash data, which can be obtained from your state's department of transportation and department of public health, will help to convince officials of the project's importance.

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## EVENTS

Walk and Bike to School Days are a great way to inaugurate your program and generate enthusiasm (see Promotions section for details on organizing this event). International Walk to School Day, held the first Wednesday in October, offers an opportunity to plug your school into a successful worldwide movement. Schools across the nation have used this event to launch ongoing and permanent safety and education programs, and secure funding for street improvements. Schools that have success with International Walk to School Day can keep the energy alive by organizing Walk and Bike to School Days, either weekly or monthly. Even if you start with a small number of ongoing participants, continue to promote your events and they will have a cumulative and lasting effect. Other event ideas are described in the Promotions section.

## CONTESTS

Contests are an ideal way to get children's attention and motivate them to try something new. Contests can take many forms. Children can think about real world issues through art projects or essays. Challenge students to travel to school in different ways and reward them either individually or reward the entire class. The ultimate goal is to engage students through a contest to discover the value in walking or biking to school, without receiving an award.

## TEACH CHILDREN IN THE CLASSROOM

Teaching children basic pedestrian and bicycle skills is vital to the success of your SR2S program. Rodeos and obstacle courses are examples of fun activities for students. Teaching health, fitness, and the environmental consequences of various transportation modes enhances children's ability to make healthy choices in their lives, which will have a positive impact on the community and our Earth.

## MAP THE ROUTES

The Safe Routes to School Task Force focuses on developing a Safe Routes to School Improvement Plan. The SR2S Task Force will identify a focused area surrounding the schools, mapping the routes that children currently take to school, suggest safer routes when necessary, and recommend improvements. Walk the routes in groups and identify safety issues, using the Safe Routes Checklist and locating them on a map. Involve the students and have them map the routes themselves. Those who walk and ride regularly already are familiar with their streets, while those who do not, will begin to learn about their neighborhood. Working with local government staff, develop a SR2S Improvement Plan for addressing such safety issues as speeding cars, dangerous intersections, and missing or ineffective crosswalks, sidewalks, and bike lanes.

## ESCORT PROGRAMS

Many parents would like to allow their children to walk or bike to school but are afraid of letting them walk or bike alone. Escort programs address the immediate need for safety and complement more permanent infrastructure improvements. The "Walking School Bus" (or "Bike Train") involves adult volunteers who accompany children to school, stopping at designated locations where children can join the "bus" or "train" at pre-arranged times (see more about the "Walking School Bus" in the Safe Streets section). Escort programs require a commitment of volunteer resources and good coordination.


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A crossing guard program can train volunteers to help children cross the road. School districts should be encouraged to place guards at particularly dangerous crossings. Other escort programs provide monitors on the street or find neighbors to offer their homes as Safe Houses. This is a form of community participation that urban visionary Jane Jacobs called "Eyes on the Street," and is particularly useful in urban areas where crime is a major concern.

## CARPOOLS AND BUSES

Many children live too far from school to expect them to walk or bike to school. This is especially true for children who attend private schools. Some schools offer a bus program, using yellow school buses or through agreements with city bus services. If so, include a carpooling and bus component in all your SR2S activities and encourage parents to form carpools with special incentives such as preferred drop-off areas for carpools. Hold neighborhood coffees at the beginning of the school year to help parents meet their neighbors and arrange carpools. In addition, create special contests for parents who carpool, with awards such as free baby-sitting or romantic get-a-ways. Organized "Walking School Buses" and "Bike Trains" can become carpools on stormy days.

## KEEP YOUR PROGRAM ALIVE

It takes time to develop new cultural attitudes about transportation. Be sure to reintroduce your program every year at the beginning of the school year. You should:

- Hold a kick-off event or assembly to get students excited.
- Notify parents by including information about the program in the parent packages that are mailed home at the start of the school year.
- Hold regular SR2S team meetings at a time when most interested people can attend.
- Meet with the principal and teachers at the beginning of the year to plan in-classroom activities for the year.
- Hold neighborhood coffees to encourage parents to form "Walking School Buses," "Bike Trains," and carpools.
- Keep your school community up-to-date on the latest street improvements. Every new success builds increased support for the program.
- Keep measuring your success through new surveys. The greatest satisfaction comes from seeing the increase in the number of children walking and biking to school and the reduction of cars entering the school grounds.
- Be sure to inform your community through press releases and newsletter articles.
- Join government advisory groups and attend city council and school board meetings.
- Reward yourselves and celebrate every success, large or small.


# Promotion

# Promotion

## PROMOTION TOOLKIT

This Toolkit provides information about activities designed to encourage children to walk and bike to school. The purpose of a Safe Routes to School (SR2S) program is to foster a culture where walking and biking are celebrated and encouraged. Festive events and clever contests will make biking and walking to school attractive and enticing.

### Establish a team

Establishing a network is necessary for launching a successful SR2S program. The SR2S Team should be started at your school with the goal of obtaining official status with the school administration. This can be done through the PTA or as a school subcommittee. Start by finding parents, teachers, administrators, and students who share your enthusiasm for walking or biking and are concerned about traffic safety.

### The Team Players

*Parents*

Parents are the most active SR2S participants because of their concern for their children. They form the majority of the SR2S teams to help organize events, contests, and classroom activities, while also publicizing the program and recruiting other volunteers. They have detailed knowledge of their neighborhood and have a wealth of information about safety hazards in and around the schools in the community.

*Students*

Children are the heart and soul of any SR2S program. When children are inspired, their enthusiasm is infectious. Students often serve on the SR2S teams and use classroom assignments to help gather information for engineering improvement recommendations.

*The Principal*

An enthusiastic principal can be a great motivator for a SR2S program. The principal ensures that contests and events are compatible with the school calendar and helps set aside time for SR2S classroom lessons, assemblies, and bike rodeos.

*Teachers*

Teachers can offer tremendous support for a SR2S program by bringing information into the classroom, reminding students of special events, and assigning student activities. Active teachers often set an example by walking or biking to school themselves.

*Neighbors*

Often there are neighbors without school-aged children who are equally concerned about traffic safety in the community. Neighbors are also knowledgeable about safety issues in their community and can serve as volunteers for events and classroom lessons. Often neighbors volunteer to be crossing guards or participate in other Escort programs.

*City or County Staff*

A close relationship with local law enforcement as well as public works and public health departments is essential to a successful SR2S program. Law enforcement can provide extra patrols and escorts on Walk and Bike to School Days, help to gather speed and injury statistics, assist with classroom lessons and ultimately can implement a long term enforcement strategy. Public Works staff can work with the community Task Force to assist in evaluating the streets and creating a SR2S Improvement Plan that can then be used as a blueprint for making physical improvements.

*Elected Officials*

The city council and school board are the key participants on a SR2S Task Force, even if they are not active members. The city council will ultimately decide on street improvements, when to




allocate local resources, and when staff members should apply for grants. Elected officials often enjoy participating in events, enhancing publicity.

### BUSINESSES AND COMMUNITY GROUPS

The local chamber of commerce and area businesses can assist a SR2S program by providing donations of food and prizes. Businesses also can help publicize your program and provide staging areas for Walk and Bike to School Day events. Those businesses that are located adjacent to schools will want to participate in the mapping process, because reduced traffic benefits their customers and employees. Senior groups, walk and bike clubs, and community organizations can provide expertise, connections to elected officials and staff members, and volunteers for events.

In your search for team members, you can:

- Write an article for your school newsletter and invite people to come to an informational meeting.
- Circulate flyers throughout the neighborhood and write a press release (see sample in the Resources section). Many neighborhood residents are equally concerned about traffic congestion, safety issues, and lack of good sidewalks.
- Make a presentation to the PTA, walking and biking clubs, senior citizen groups, and other community organizations.

## Getting Started

In the early stages, you may be active in outreach activities and only have a handful of people to start the SR2S team. Don't let that discourage you. Your work is important and even one or two people can plan a small event such as Walk and Bike To School Day or a classroom contest.

As the program increases its visibility in the community, people will realize that this program is fun and important and more people will want to join your team. Go ahead and start with a small group but keep searching for additional members who can help the team.

Your first meeting will be an ideal opportunity to introduce the program and get to know your fellow team members. Be sure to set time aside in the beginning for people to introduce themselves and talk about their reasons for participating. Discuss your goals for the program and establish a list of tasks and a timeline for achieving those tasks. Your first activities will focus on gathering information (see below). Safe Routes to School depends on volunteers. Have a number of small tasks available for those who have limited time to devote to the team. Remember, no job is too small and even the smallest efforts are appreciated! If you decide to start with a kickoff event, see "Events" (page 18) for more detailed information on how to proceed. If your initial efforts will focus on safety improvements, consult the "Safe Streets" (page 29) section of the toolkit.

The following tips will help ensure uniform involvement by all members of your team:

- Establish a regular meeting time when most people can attend.
- Make sure everyone involved receives meeting announcements.
- The personal touch always works best – make phone calls to team members.
- Set agendas and stick to them.
- Make your meetings concise and productive.
- Create a warm and welcoming environment.
- Start with small and achievable goals.


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- Grow your program out of the special needs of your community.
- Set a schedule of events and tasks.
- End each meeting with a review of task assignments and set the next meeting date.

## Gather Baseline Data

Surveys generate baseline data that can help shape your SR2S program. Surveys can be administered visually (such as counting the number of bicyclists), verbally or in writing, to individuals or to groups. Surveys can be short and concise or extensive with data gathered over a number of days, such as a one-week travel diary. A well-designed survey will provide unbiased information that can help to identify the current level of biking and walking to schools, the physical and perceived problems, and opportunities for biking and walking in your community.

Before and after surveys can be useful in evaluating the program's accomplishments. For example, counting the number of bicyclists and walkers before, during, and after SR2S events can help quantify the impact of your promotional activities. This type of information is valuable when trying to obtain funding or to show the importance and effectiveness of your work.

Designing and evaluating the surveys in order to get baseline data can be time consuming yet rewarding. Surveys should be designed so that data capture specific information in an unbiased manner, requesting a desired level of detail while ensuring the method you use is easy to code and evaluate (sample surveys are found in the Resources section). Someone must administer the survey and then enter the responses into a database so that the data can be analyzed. This should provide an accurate snapshot of your target audience's behavior, so be sure to share the findings with the community as a way to generate support for the program. If this task overwhelms you, ask a math teacher, local traffic engineers and transportation planners, or the county health department for assistance in developing your survey.

### *Student Surveys*

Student surveys, which reflect how students travel to school, are essential to determining your program's success. These surveys can be done by students (see Classroom Activities section) or by volunteers from the team. An oral survey asking for a show of hands in each homeroom is simple and easy. Ask how many students walked, biked, bused, carpooled, or were driven by parents or siblings to school. You can also include a category for skateboarding, scooters, and other transportation modes. Be sure to explain the definition of a carpool – two or more families who share driving. It's best to conduct this survey for a week at a time to get an accurate picture of students' travel behavior. (Take note of potential variations in travel behavior because of weather and other seasonal variables.) At the end of the school year repeat this survey using the same parameters to determine any changes in student travel behavior. Older children may be asked for more detailed information about their transportation choices. Middle and high school students can develop and administer their own surveys. (See Classroom Activities.)

### *Traffic Counts*

Traffic counts measure the number of vehicles arriving at school. A simple traffic count involves volunteers at each school entrance counting cars arriving during the half-hour before school begins. More complex counts could tally the number of cars passing the school and/or the number of students biking and walking to school. A simple way to measure biking is to count the




number of bikes in the bike rack after school starts. You also could count the number of children getting out of each car at the various drop-off points around the school. Ask school bus drivers to count the number of children on their bus. At the end of the school year and/or during SR2S events, repeat this traffic count the same way to determine any changes in traffic patterns around the school. Students also can conduct this traffic count survey as a classroom activity (see Classroom Activities section).

## Parent Surveys

Measuring the attitudes of parents can give your team insight on the reasons behind students' travel behavior. Ask parents how their children currently get to school and why this travel mode was chosen. If parents drive their children to school (and most will), ask why. Then ask what might get them to allow their children to walk and bike to school. This information will help you design your program to address the safety concerns of parents. Be sure to ask them if they want to volunteer, and provide space on the survey for their name and contact information.

Parent surveys are distributed to parents either by mail or sent home with students. Surveys also can be conducted by phone using a random sampling (choose parents from the school directory at random). The method of distribution might influence survey length and design.

Other data that will strengthen your program:

- School population with a breakdown by grade
- The location of all the students' homes in a database and/or on a map
- The number of non-English speaking students and the first languages spoken by these students
- The number of families in your school
- The number of out-of-area families (greater than two miles)
- The number of students who attend before and after-school care/programs
- Students eligible for free or reduced-price lunch programs
- Demographics: race, ethnicity, family make-up

### COMMUNICATE WITH YOUR COMMUNITY

After the Safe Routes Team has collected and analyzed the baseline travel data, present it to the wider school community. Publish it in the school newsletter, and/or develop your own newsletter or flyer. Speak to the PTA, neighborhood groups, and the city council. Invite the community to a special SR2S forum to present the data, discuss issues revealed in the survey, and explain the SR2S program. After people understand the need for the program, you can schedule community-wide meetings. Create a warm, welcoming feel, offer refreshments and provide childcare, if possible, to increase attendance. Post notices, advertise in your school newsletter, and e-mail or call everyone who has expressed interest. A personal contact will make people more likely to attend.

As a word of caution, avoid setting up an adversarial process. Certain individuals may resist aspects of the program that require a change in their behavior. While these people can challenge the program, they can also contribute to its success. Do not identify these people as a group or faction. Try to facilitate a positive process where all concerns are heard. Criticism and dissenting opinions often lead to the development of an improved program. If you approach all individuals with respect and consideration, everyone can be a strong ally.

# Promotion

The project team also is responsible for promoting the SR2S program and making its goals known to the wider community. Outline the variety of problems that the SR2S program addresses and request input and feedback from those affected by the program so your activities can be modified, as necessary.

## EVENTS

Special events promote and stimulate walking and biking. Events such as Walk and Bike to School Day give people the opportunity and motivation to try something new for a day, in the company of others. Once children and parents discover the joys of walking and biking through such events, they are more motivated to continue on their own.

### WALK AND BIKE TO SCHOOL DAYS

In 1997, National Walk Our Children to School Day began with a walk in Chicago sponsored by Partnership for a Walkable America. By 1999, 300,000 children from 170 cities across the United States were participating. On October 4, 2000, the event officially went global with International Walk to School Day, which included nine countries and more than 2.5 million participants. By 2001, the number of participating countries had doubled.

A Walk and Bike to School Day event can be beneficial for a number of reasons:

- To encourage physical fitness through a healthy and active lifestyle
- To share the joys of walking and biking
- To reduce traffic congestion and speed near schools
- To teach children safe walking and bicycling behavior
- To teach children independence and self-confidence
- To reduce air and water pollution
- To reclaim neighborhood streets

A Walk and Bike to School Day can be simple or elaborate, depending on the needs of your community. Design an event that your team can handle and that suits your community. Be sure to give your team sufficient time to plan your event. It usually takes 4 to 6 weeks to organize the first Walk and Bike to School Day, but some communities have created events in just a couple of weeks.

Here are some tips for organizing a Walk and Bike to School Day:

- Hold a meeting to organize volunteers.
- For your first event, try to work within an existing organization like the PTA or a neighborhood association that has the community contacts to recruit volunteers.
- Involve as many people as possible to build excitement that will spread to others; involve school staff to help promote the event internally.
- Invite local senior groups, biking and hiking clubs and other community groups to join in.
- Get celebrities and local officials to come walk with the kids.
- Ask for a sheriff or police escort to be present at the event.

### Planning the Event

At your first meeting, determine the goals for the event. Is the focus on fitness, or is this a way to bring attention to a needed improvement such as a crosswalk? Whatever your goals, discuss them




and write them down. This will help you in designing your promotional packages.

Decide the scope and structure of the event. You can invite parents and children to walk on their own and create a welcome table at the school. You also can create staging areas where parents can drop off their children to walk or bike with a group. A nearby shopping center or church might allow you to use its parking lot or there may be a park near the school where children can gather. Encourage neighborhoods to organize their own "Walking School Bus" or "Bike Train" (see escort programs in the Safe Streets Toolkit).

Make a list of all tasks and assign them to members of the team. If the attendance is low, then recruit other people who might be able to help, and assign tasks to them. At the end of the meeting review the tasks and responsibilities one more time.

## Children's Safety

Ensuring the children's safety is essential for any event. Adequate and competent supervision is critical. Recruit adults to meet children at predetermined locations or staging areas and walk or bike with them to school. If walking, try to have at least one adult for every 12 children (or more if the children are in kindergarten through second grade); if biking, include more adults, approximately one adult for every seven children. Ask parents to walk with their own children, especially if they're young.

When traveling on busy streets, it can be helpful to have extra supervision. Some communities have adults stationed at strategic places along routes to school. Often schools provide crossing guards at busy intersections near schools. Local law enforcement is usually willing to participate and may provide one or more officers for the event. Some police departments even have bicycle patrols that can bike alongside the children.

If you are organizing "Bike Trains," make sure that children are properly equipped and sufficiently trained for safe cycling. Every child must wear a properly fitted bike helmet. Conduct traffic safety training before the event to ensure that children understand the rights and responsibilities of cyclists. Limit participation to those children who are old enough to negotiate traffic on a bike unless they are accompanied by their parent.

Use the opportunity of a Walk and Bike to School Day to encourage people to get to know their community and identify safety concerns. The Safe Routes Checklist (see Resources) is used to assist in mapping the community to evaluate routes. Pass out the checklist no later than the day before and ask the children to use the list with their parents as they walk. Passing out the checklist earlier will give families an opportunity to walk the route in advance of Walk and Bike to School Day. Have the children draw maps and display them around the school. Publish the results of the checklists in the next school newsletter and use the information as part of your Task Force mapping process. Use this as an opportunity to recruit more volunteers.

## Create a Celebration

Creating a celebratory atmosphere is an excellent way to increase energy and make the event fun for everyone. Decorate the routes to school with banners or signs. Greeting children with banners, balloons, flags, or even the school band, creates a festive occasion. Free treats and other refreshments offer an incentive for children to participate.

In many instances, the materials needed to organize a celebration can be acquired for free or at low cost. Students can make signs, banners, and flags. Law enforcement agencies, city transportation departments, and health organizations often have trinkets to give away. Local grocery stores usually have a budget to donate healthy

# Promotion

treats but be sure to give them a few weeks notice.

Advertising is important to set the tone and recruit participants for the event. A festive promotional tool, such as a banner at the school, will constantly remind students that a celebration is coming. (See the Safety Art lesson in Classroom Activities.) Backpack mail, school newsletters, distributing flyers at school drop-off points, and news media press releases are all effective ways to advertise your event. If your school has a communications system, such as an e-mail list or classroom phone trees, make use of that to promote your event. Ask the principal to make announcements over the loudspeaker in the days leading up to the event, and have teachers remind their students. (See the Resources section for a Walk and Bike to School Day Checklist.)

Classroom-based activities are another way to promote the event while providing educational value. Find teachers who are willing to hold classroom activities prior to the event. Volunteers also can go to classrooms to conduct safety and/or art lessons. An exciting assembly that includes bicycle-riding demonstrations will delight the children.

## Ideas from Other Communities Make it Fun!

The bobcat is the mascot for Bonita Elementary School in Bonita Springs, Florida. For International Walk to School Day, the community of Bonita Springs painted a two-mile path of blue paw prints leading to the front entrance to the school. Children from Queen Mary Elementary School in the Canadian province of British Columbia drew the longest hopscotch in the world and followed it to school. Whole Foods staff helped out Whittier Elementary School in Boulder, Colorado, by dressing up in fruit and vegetable costumes on International Walk to School Day.

## Use the Day to Promote Traffic Safety

At Bryn Mawr Elementary in Renton, Washington, "Walk Smart" became the theme and rallying cry of the day. Weatherproof signs with the message "Walk Smart, Drive Slower, Our Children Want to Grow" were fashioned on T-shirts, flags, and umbrellas, as well as used to line the route to school. In Capital Heights, Maryland, more than 100 children walked together singing safety songs.

## Bring People Together

In Broward County, Florida, Walk to School Day was combined with Broward Navy Days. Sailors, dressed in Navy whites, walked with students to school. Physical education students at Virginia Tech in Blacksburg, Virginia, planned and participated in Walk to School Day at three area elementary schools. In Clarkston, Georgia, children from a refugee resettlement community used the opportunity to create a cross-cultural experience. Waving handmade pedestrian safety signs written in several languages, they all joined hands to walk together.

## Other Innovations

- Hold a class-by-class competition – Reward the class that has the greatest percentage of students walking and biking with a breakfast, an extra recess, or a pizza or ice cream party using food donated by local businesses.
- Hold a "Best Ways to Get Your Parents to Walk/Bike to School With You" contest—Have students come up with one-sentence ideas for getting parents to walk with kids. Get a panel of local celebrities or radio, TV, or news




journalists to judge the contest. Reward both creativity and feasibility. Publish a list of winners.

- Have students draw a memory map (cognitive map) of their walk to school. Ask them to keep a diary of their walking trips. Invite them to write or draw what they saw, what was beautiful, what would make the walk safer, and what changes would make them more likely to walk again soon.
- Hold a treasure hunt by asking students to identify certain landmarks on their way to school. These can be fun items such as houses with garden gates, certain trees, and common flowers. You should also include street signs, important buildings, and other landmarks that are important for children to know. Have them map out where they found each item. Give out prizes for those who complete their maps. (See Classroom Activities.)
- Have students decorate their sneakers. Give out prizes for the most original. Ask them to wear their decorated shoes to school during the walk.
- Create themes. For instance, in February, use the theme of a healthy heart to promote physical fitness. Invite the school nurse or other health professionals to give talks on the importance of good health. Invite the local hospital or the heart association to give out information. Hold a health fair at the school.

### Variations

- Hold a Walk and Bike Home From School event. Assemble the students and have everyone walk home together in a parade.
- Organize a walk to a community event. The Vista Community Clinic in Vista, California, organized a walk to the community's annual Cinco de Mayo celebration. Organizers had special booths at the festival alongwith a bike rodeo.
- Organize a special nature walk home from school. Invite a local naturalist to take the children on a walk home through a natural area like a park or by a creek. Teach the children to identify plants and trees in their neighborhood.
- "Footsteps in the Neighborhood" is the brainchild of the "Way to Go" program in British Columbia. Provide each participating class with a piece of colored chalk, footstep stencil, and spray paint or chalk. Invite each person in the class to mark out his/her route to school using the materials supplied. Make sure you get permission from your local government if you are going to use any marking that will be permanent.
- Declare a Car Free day. Each family in the school is challenged to give up their cars for one particular day. Have the students keep a diary of how their family traveled that day. Produce a chart to calculate how many pounds of pollution were avoided.
- Hold a walking festival. Set up booths that promote traffic safety, walking for health, walking for the environment, and walking for the good of the community. Invite other organizations to set up information booths.
- Have a bicycle rodeo (see Classroom Lessons). Create obstacle courses, safety courses, and other ways to teach children bicycle safety skills.

## CONTESTS

Challenge students to change their behavior through contests and competitions. Contests and

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competitions are fun and children are motivated to win prizes. Contests are effective in encouraging the students to act beyond their normal experience and try out new ideas and activities. Yet, be cautious not to overdo a good thing. For example, a yearlong contest might cause children to lose enthusiasm. Keep changing the themes to keep students interested. Not all contests reward participants with prizes. Sometimes the students' reward is seeing their work published or used for a community education campaign.

## Frequent Rider Miles

The Frequent Rider Miles contest was originally conceived by GO GERONIMO, an alternative transportation program in the San Geronimo Valley in Marin County, California, and adapted by the Marin SR2S program of the Marin County Bicycle Coalition (See Resources). Children are issued tally cards to win points for walking, biking, carpooling and busing. Every time they walk or bike to school they earn two points. Every time they carpool or take the bus they earn one point. When they earn twenty points students turn in their card for a small prize and get another card. At the end of the contest, hold a raffle drawing of all the completed tally cards for major prizes. Contact local businesses and ask them to donate prizes.

In Marin, Specialized Bicycles, Schwinn, Diggler, and Bell Helmets have donated prizes including helmets, gloves, hats, T-shirts and a new bike for each of the nine pilot schools. This contest had tremendous success in getting students to walk and bike on a regular basis.

## Greening of the Trees

In the "Way to Go" contest (British Columbia), each child comes to school and colors a leaf. The color of the leaf is determined by the child's travel mode. Walking and biking students color leaves green. Those who arrive by bus and carpool get a different shade of green leaf. If a child traveled by car part of the way, but walked at least a block, the leaf is half yellow or brown and half green. Students who arrive by car (but not in a carpool) get a brown leaf. The leaves are then mounted on a tree, and the more the children walk or bike to school, the greener the tree becomes. Give a prize to the class with the greenest tree.

## Walk and Bike Across America

Another "Way to Go" Initiative, this contest allows students to get a broader perspective on the freedom provided by walking and biking. Students keep track of the distance that they walk and bike to school by calculating how far they live from school and multiplying that by the number of one-way biking and walking trips. If children are dropped off at staging areas near school they calculate the distance they travel from there. Similar counts are made from home to the bus stop.

Each week at a designated time, the students add up the distance that the whole class traveled during that week and plot it on a map. Then they "travel" to a destination chosen by the class within those miles. Students become aware that they can travel great distances on foot or by bike. As your class continues to accumulate miles, the class can research new destinations around the country. At the end of a designated time, the class that has traveled the farthest gets a special reward, such as a video or pizza party.

In a variation on this contest, you can include carpools and bus passengers by adding bonus miles for every child who uses those modes. Note that students using motorized transportation can




travel farther than those going on their own power. To include the actual miles would defeat the purpose of the exercise. Add one mile to the class total for every child who carpools or rides the bus to school.

### Art Contests

Art contests give children the opportunity to develop safety slogans and art while learning about better safety practices. Their artwork can then be used as signs or banners as part of a community-wide safety campaign. Students in Hertfordshire, England (United Kingdom), saw their own artwork transformed into "gateway" signs to alert drivers entering roads around schools.

### Essay Contests

Essay and creative writing contests give students an opportunity to address how transportation affects their community and the environment. Middle school students at the Lagunitas School in Marin County, California, met with school instructors to develop an essay that looked at two different scenarios. What would the world be like in 20 years if everyone drove as much as Americans? They were then asked to contemplate a world where everyone rode bikes, walked, or used transit. The outcome "Nightmares and Sweet Dreams" was a thought-provoking essay on the choices the students face in their future. The essay was published in a number of different newsletters.

### Other Contest Ideas

Organize a Treasure Hunt by creating a list of objects, safety signs, and special landmarks and ask the children to locate them on their walk to school. Those who find all the items get a prize. (See Walk and Bike to School day and Classroom Activities.)

Hawthorne School in British Columbia created a classroom game board. Every time the majority of the class walked or biked to school, they stamped a square on the board. When the whole board was completed, the class qualified for a class prize.

A Walk-a-Thon is a way to promote walking and raise funds at the same time. Children solicit pledges for every mile they walk (or bike) to and from school. At the end of the period, the student who raises the most money wins a prize.

## PROMOTE YOUR PROGRAM

Repetition is the key to the continued success of your SR2S program. A SR2S program should be promoted by maximizing its visibility through repeated outreach to its potential "customers." The rule of thumb in marketing is that people need to hear and read about an event at least three times before they pay attention. Personal contact increases the likelihood of participation. The more times that children and parents hear about the program, the better the chances of participation. Specifically having teachers and respected adults and students promoting the events can greatly increase visibility.

### Flyers and Banners

Post flyers around the school announcing team meetings, events, and contests. Expand beyond the school and post them at local businesses. Make your flyers attractive by using eye-catching graphics (see samples in Resources section). Find a volunteer who has experience in graphic design to help you design your flyers. Be sure to include all the important information—who, what, where, when, and why, but don't load up your


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flyer with too much text because pictures often tell the story better. Make sure your flyers are easy to read and that the most important information is big and bold. You also can make large banners that can be placed in strategic places at the school and in the community.

## Backpack Mail

Most schools have a day every week when they send home notices with the students ("backpack mail"). This is an excellent and low-cost opportunity to communicate with parents on a regular basis. Send home your flyers as well as more detailed information on the program. This is one way you can do your parent surveys. Provide parents with fact sheets on the significance of health and safety for the children, for the community and for the natural environment (See Resources). Every piece of information sent out keeps your program visible.

## School Newsletters

Most schools have newsletters that are sent home periodically. Find out if you can include a regular column in the newsletter and get the deadlines for the submission of articles. Use the school newsletter as an opportunity to talk about the Safe Routes to School program and initiate discussion. Be sure to announce all events and contests in at least two separate issues of the school newsletter. Let parents know when classroom activities are scheduled, especially if the children need to bring their bicycles or other equipment.

## Media Alerts

The media love stories about children. Send out regular press releases to announce your events and contests. Publicize the results of your surveys. Stage a photo opportunity with students walking and biking but be sure to get model releases for the children used in the photo because they cannot be photographed at schools without parental permission. Follow up every press release with a phone call. Media outlets receive numerous press releases so a phone call will get their attention. Form a relationship with the editor or a writer and be sure to call them every time you have a newsworthy story. Don't forget to thank the reporter or editor if your event was mentioned in print. The editorial page is also an excellent opportunity to get more publicity for your program. Have team members write letters to the editor or longer opinion pieces.

## E-mail

E-mail is an excellent tool for communicating with busy people. At all meetings and events, collect e-mail addresses and develop a comprehensive e-mail list to keep your supporters informed. Include elected officials and school and city staff people on your list. Keep your e-mail messages short and to the point. Announce events, classroom activities, meeting reminders, and other updates. Many schools have created their own e-mail lists. You can often make use of these to announce your events, classroom activities and contests. These lists are also useful for recruiting volunteers.

You can also start your own e-mail list-serve within your school or with other teams in your community. List-serves are made available by private servers to allow multiple parties to have access to each other without having to enter individual addresses. These are usually free and allow for two-way communication within the group. This allows you to keep people informed about your activities and build support for the program. It is a good way to communicate with volunteers who don't attend meetings. You may want to suppress the address list to protect parents' privacy.


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## Web Sites

Many schools now host their own web sites. Ask if you may have a page on the school's web site. Cities also have web sites and you can ask for a page on that site. You can also set up your own web site to keep people abreast of your activities and then link it to the city and school sites.

## Phone Trees

Many schools set up phone trees for each class. You can activate these phone trees for your Walk and Bike to School Days and for classroom activities. Some schools even have sophisticated phone systems that can call all school parents with automated announcements. You can also set up your own phone trees within your group. Phone calls are the best way to get people to attend meetings and events. It is especially important to call everyone on your team before a meeting. Do not assume that they have it on their calendar or that they saw an e-mail update. Going the extra mile with a phone call will give you much higher attendance at meetings and events.

## Direct Mail

Send out a mailing to every parent at the school or a community-wide mailing to announce events or workshops. While direct mail can be expensive, your city or school may have the budget to include you in a mailing. Direct mail assures that everyone sees your announcement or survey. Mill Valley, California, sent out its parent surveys by mail and got a 50 percent response rate.

## School Announcements

Request that the principal make announcements over the loudspeaker for events and contests. For Walk and Bike To School Days, the students should be reminded repeatedly to participate. Put an announcement up on the reader board. Have the teachers announce it in the classrooms during homeroom.

## Classroom Activities

Classroom activities help to raise awareness and get students excited about the program. Combine classroom activities with your events so that they happen in the same week or in the week leading up to your event. This helps to build enthusiasm for the event. (See Classroom Activities.)

# KEEP THE ENERGY ALIVE

With contests and events, children will participate in SR2S programs in much greater numbers. However, they will return to their old habits without continued reinforcement. Use all of the above techniques to keep the energy alive. Continue to remind parents and children about the importance of reducing traffic and the health and environmental benefits of walking and biking. Work with your SR2S Task Force to improve the conditions of the streets to provide safer access.

Make sure you thank your volunteers often. Let them know they are appreciated. Give your team an opportunity to bond with each other. Empower them by giving them responsibility and decision making powers. Volunteers need to feel they have ownership of the program and that their ideas are valued. Treat each other with respect even when you disagree.

Have fun with your program. Walking and biking are thoroughly enjoyable activities. Make that evident with everything you do. People are attracted to those with positive attitudes. You will get more volunteers, more media attention, and more cooperation from your city and school officials when you are positive and upbeat. Remember, you're not only an organizer you're a cheerleader.

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## THE KEYS TO A SUCCESSFUL EVENT

### Involve the people who can create change.

Contact your mayor, city council representatives, school district superintendent and board, police chief and city traffic engineer to join you.

Think big—invite the governor, federal and state legislators, and state department of transportation officials to participate. Let them know that the media has been invited.

Urge them to take part in the event with their own children or others.

### Make it a community program.

Enlist the help of parents, teachers, local business people, neighborhood associations, and other community organizations when coordinating your event.

Contact parent/teacher organizations, local emergency medical services, and city police, fire, and public health departments.

Ask local businesses to donate prizes for participants.

Ask a local business near your school to let you use its parking lot as a staging area.

### Publicize and promote the event.

Use e-mail, backpack mail, phone calls, and flyers to get the word out.

Send a press release to the media.

Follow-up with phone calls to local media outlets. Let them know:

- What state or community leaders will take part in the event.
- The number of children and parents who are expected to walk.
- What other community groups are involved.
- Best locations and exact times to join the walk.

Call the media again the day before the event.

Send flyers home to parents well in advance of the event.

Be sure the Walk and Bike to School Day is announced daily at school the week before so that students will be ready and excited.

Have students draw posters advertising the event.

Take pictures and submit them with a press release to local papers immediately following the event.


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## SAFE STREETS TOOLKIT

In order to encourage more children to walk and bike, parents need to trust that it's both safe and convenient from a variety of perspectives. Traffic on neighborhood roads and streets is a large impediment to most children walking or biking to school.

To create a safe route for every child, there should be ample room to walk and bike, preferably separated from traffic. Every major road crossing needs a safe and visible crosswalk and sometimes traffic controls and crossing guards. You can address these issues by creating a Safe Routes to School (SR2S) Improvement Plan using the three Es:

Education programs teach motorists, pedestrians and bicyclists about their responsibilities and about traffic rules, while promoting activities that encourage walking and biking. Teach bicycle and pedestrian safety to students as part of their classroom curriculum. Develop a safety campaign that promotes safe driving through the use of banners, posters, promotions, and direct appeals to the community.

Enforcement enlists the help of local police departments to focus enforcement efforts in problem areas and increase community awareness of school safety issues. Beefing up enforcement around schools helps keep drivers on their best behavior. A consistent but random presence of law enforcement will encourage motorists to drive with care.

Engineering tools include a variety of street design techniques that can reduce traffic volumes, decrease speed, and improve safety. Some engineering solutions, moreover, don't require large expenditures, such as posting signs, re-timing lights, or re-painting crosswalks and bike lanes. Long-term engineering solutions will require a funding plan, which should be included in the SR2S Improvement plan developed by your SR2S Task Force.

### A Matter of Life and Death: 20 mph versus 40 mph

A little slower speed can mean a world of difference for pedestrians and bicyclists. Pedestrians hit by a car traveling 40 mph have a mere 15 percent chance of survival. At 30 mph, those odds increase to 45 percent. By contrast, a pedestrian has a 85 percent chance of survival if hit by a car moving at 20 mph.[5]

A cost-effective way to reduce speeds is "traffic calming," which focuses on design changes to streets and intersections. These changes include raised crosswalks and intersections, new medians, traffic circles, speed humps, and curb extensions that can slow traffic to acceptable speeds and better balance the needs of vehicle flow and traffic safety.

Sometimes streets need to be redesigned to improve safety, access, and mobility for pedestrians and bicyclists. With wider sidewalks (resulting in narrower streets), more visible pedestrian crossings, and slower traffic speeds, parents can feel more comfortable allowing their children to walk and bike on their own. When children have more independence, parents are freed from chauffeur duty and adults venture out more often on foot or bike.

Clearly marked bike lanes or separated bicycle and pedestrian pathways and trails are some of the most effective ways to encourage people to walk and bike. Once completed, they tend to fill quickly. Multi-use paths also are popular with nearby residents and, according to a Rails to Trails Conservancy study, have even helped increase property values and lowered crime rates.[6] Adequate bicycle parking facilities with

5. *UK Department of Transportation, "Killing Speed and Saving Lives."*
6. *Tunnels on Trails, April 2001.*




assured security on school grounds can also dramatically increase the number of children biking to school who may otherwise be concerned about theft.

## The Success of the Three Es

There are numerous success stories where school districts, towns, cities, states, and even countries have developed comprehensive programs that created safer streets around schools and increased the number of children and adults who walk or bike. The first pilot program was started in Denmark in 1976, when 45 schools identified specific road dangers to be addressed. They proceeded to create a network of traffic-free pedestrian and bicycle paths, established slow speed areas for certain roads, and complemented these with road narrowing and traffic islands. These improvements have now been implemented in 65 localities and crashes have fallen by 85 percent.[7]

The Sustrans SR2S program was introduced in England (United Kingdom) in 1995. Bicycle lanes, traffic calming, and raised pedestrian crossings have cut traffic speeds considerably making conditions much safer for pedestrians and cyclists. Lower speed zones in England (20 mph) reduced child pedestrian casualties by 70 percent and child bicycling casualties by 28 percent.[8]

Aggressive traffic calming programs have been implemented in such cities as Palo Alto and Santa Monica, California; Portland, Oregon; Seattle, Washington; and New York City. Both Berkeley and Palo Alto have made significant progress providing engineering solutions to make

PROFILE: *Community Decision Making*

In February 2000, the City Council of Mill Valley, California, formed a Transportation Committee to address the increasing congestion on the streets of this small town nestled at the foot of Mount Tamalpais, just north of San Francisco. The committee included representatives from the city, police, local businesses, schools, senior citizens, and other community members, along with staff support.

The Transportation Committee mailed out surveys to the parents of every school in the district, which garnered a 50 percent rate of return due to the concern of parents for the safety of their children. They discovered that 60 to 70 percent of all students were driven to school. The committee also found that 26 percent of morning traffic could be attributed to school-related traffic. In addition, the City of Mill Valley hired a consulting firm to analyze the street conditions and traffic volumes.

In Fall 2000, the City sponsored an open house on transportation attended by about 250 residents. The committee presented its findings and gathered more community input. In January 2001, the committee issued its recommendations, including education, enforcement, and engineering improvements. There was a special emphasis on pedestrian and bicycle needs around schools, and a new local transit system. Some of the recommended improvements were in place by Fall 2001, while others are pending.

7. *A Safer Journey to School, Transport 2000, England*
8. *Sustrans Routes for People 3-Year Review*


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streets more bicycle and pedestrian friendly. The City of Seattle reported a 77 percent reduction in traffic crashes after it implemented a citywide traffic-calming program that included 700 new residential traffic circles.[9]

## CREATE A SAFE ROUTES TO SCHOOL IMPROVEMENT PLAN

Why won't parents allow their children to walk or bike to school? In Marin County, California, nine pilot schools found that more than 50 percent of students lived within a mile of school yet 80 percent arrived by car in Fall 2000. Fear of crime and "stranger danger" worried many parents, but by far, the most common concerns were traffic safety. Parents stated that the roads were too congested, the traffic moved too fast, crossing conditions were unsafe, and sidewalks and pathways were inadequate.

A Safe Routes to School Task Force tackles these problems by mapping the routes to school and planning for a safe and attractive environment for pedestrians and bicyclists. Work with your local department of public works to make infrastructure improvements that will reduce congestion around schools, slow vehicle speeds, and provide opportunities for safe crossings, bicycle facilities, and sidewalks.

### Mapping the Routes

The Task Force begins with an inventory of the areas around the school, mapping out the primary routes used by children with the Safe Routes Checklist (see Resources) as a guide. Local law enforcement can provide speed, traffic volume and crash statistics. Task Force members walk the neighborhoods, identifying significant problems, and record their findings using photos and maps. Some schools districts, such as the one in Palo Alto, California, take the four-quadrant approach, which encompasses the entire neighborhood surrounding the schools. With a dense network of neighborhood streets, they want to ensure that all students arrive safely.

In addition to the checklist, other key elements to look for include:

- Are the surrounding streets equipped with sidewalks and bike lanes? Are the facilities continuous and maintained in good condition?
- Are there trails and pathways that provide a direct link between the school site and the surrounding neighborhoods? Is there an old railroad bed or overgrown footpath that could be converted to a public trail?
- What are the traffic volumes and average speeds on heavily used walking routes? Are there opportunities for traffic calming to slow or discourage through traffic?
- Are crossing points strategically located and well marked, including designated crosswalks at controlled intersections and mid-block crossings? Do the children have enough time to get across the street?
- Is there clear visibility for drivers to see pedestrians throughout the area? Can they see pedestrians under five feet tall?
- Is the school building easily accessible to pedestrians and cyclists? Are there parking lots and drop-off points blocking their paths?
- Are there conflicts between buses, cars, bicycles and pedestrians on the school site? Are there opportunities to provide each mode with its own designated area for traveling?
- Is there adequate and secure bicycle parking?

9. *Institute of Transportation Engineers*


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PROFILE: *Community Walks the Walk to Map School Routes*

In April 2001, the SR2S Task Force of Fairfax, California held a Charrette, or design workshop, to develop a SR2S Improvement Plan. A town-wide mailing helped to promote the event. The high-powered group of more than 40 residents included representatives from the town council, the planning commission, parks and recreation commission, the volunteer board, the police and fire departments, the public works director, and the chamber of commerce as well as parents and neighbors of the public and private elementary schools.

Parents from the schools had walked, inventoried, and photographed the town's routes to schools and presented their findings to the community at the Charrette. Middle school students described their bicycle commute to the audience with vivid descriptions of the conflicts they experience negotiating traffic. This was followed by a "Toolbox" presentation by transportation consultants showing examples of safe street techniques developed in other communities.

The group then dispersed into work teams, complete with maps, flip charts, and colored pens, to devise their own ideas on how to make Fairfax a better place for walking and biking, concentrating on school routes. Each group developed creative solutions in a flurry of activity. A number of innovations were discovered as a result of this effort, which will be refined and incorporated into the town's capital improvement plan.

When evaluating a potential safe route to school, it is important to remember the special needs of children. Children aged five to nine are not fully developed and cannot be expected to behave like "little adults." In fact, compared with adults, children in these age groups have one-third narrower side vision, are less able to determine the direction of sounds, and have a limited capacity to anticipate or focus. In addition, small children are often not easily visible to drivers.[10]

The school district and/or principal also can provide supplemental information, such as:

- Addresses of students plotted on a map
- The most favorable drop off points
- The areas that currently present the largest traffic problem during pick-up and drop-off periods
- Current parking
- Nearby schools, streets, or commercial areas that contribute to the school's traffic problems

Once a SR2S map has been completed, the findings should be presented to the general public. This can be done thorough publications, in public meetings, or both. This outreach will usually attract more volunteers for your program.

Be sure to separate your strategies into short-term, low-cost solutions, and long-term, high-cost remedies. Keep elected officials informed if they are not part of your Task Force.

## Helpful Hints

- Don't jump straight to solutions. First, identify the problems using data collected by the Task

10. *Washington State Department of Transportation*—A guidebook for Student Pedestrian Safety

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Force, then brainstorm solutions in consultation with public works staff members and other engineering consultants. Use the expertise of staff to work with you in developing the right solution for your specific problem.

- Work comprehensively. There are numerous ways to approach the problem of better bicycle and pedestrian access. But any long-term solution must rely on education, encouragement, enforcement, and engineering. Combining these complementary approaches will lead to a more viable solution.
- Educate the public through public health and safety campaigns.
- Get the police to enhance enforcement near problem areas.
- Think about improving sidewalks and creating separate paths for bicycles as well as on-street bike lanes.
- There are many ways to slow down traffic. Stop signs and lowering speed limits, however, are not always the most effective solutions. Putting obstacles in the path of cars can be a better solution. Even simple striping to narrow the streets can do the trick. Look for the solutions that best suit your area.
- Be patient with and respectful of city staff and elected officials. Your issue is only one of many that they must address. When you treat them with respect, they will repay you in kind.
- Public officials also need to treat citizens with respect. Parents and neighbors are experts on their community so do not dismiss their concerns out-of-hand. These are the spokespeople for your traffic programs. When you respect their opinions, they will work tirelessly to promote your program.

## THE TOOLBOX OF ENGINEERING TECHNIQUES

### Traffic Calming

According to the Institute of Transportation Engineers, "Traffic calming is the combination of mainly physical measures that reduce the negative effects of motor vehicle use, alter driver behavior and improve conditions for non-motorized street users."[11]

When done properly, traffic calming balances the needs of all users of a street: drivers, bicyclists, pedestrians, and others, helping to restore the safety and peace in neighborhoods that have been overwhelmed with speeding and/or cut-through traffic. Many traffic-calming enhancements have the added benefit of providing attractive landscaping for the street, establishing a greater sense of place, which entices residents to spend more time outside enjoying their neighborhood.

Most traffic calming initiatives focus on reducing the volume and speed of cars, either by changing the roadbed by raising it with humps or tables, or by forcing the cars to maneuver around circles or curves that block the long view of the road ahead. Some of these devices, such as traffic circles, have the added benefit of reducing some types of collisions on roads that were previously traveled at higher speeds.

*" Narrowing a street gives the perception of an enclosure. Plantings, street furniture, and other features that visually bound the space are one way of telling motorists that this street is designed with pedestrians in mind."* – Dan Burden, Walkable Communities

11. *Institute of Transportation Engineers*


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**Profile** *Directing Traffic*

School officials, the PTA, law enforcement officials, and community groups worked jointly to solve congestion and speeding problems surrounding Sabin Elementary School. Their objective was to minimize traffic congestion, decrease speed, and improve visibility and crossing safety. They installed semi-diverters (devices that close off incoming traffic to a street while still allowing cars to exit) to encourage a clockwise circulation around the school. The neighborhood was consulted through a written ballot, with 73 percent supporting the diverters. The work was completed in 1998, along with an added marked crosswalk and a pedestrian refuge island. The project successfully diverted traffic without sending it to other streets.

## Bumps, Humps and Tables

Speed bumps, which were commonly used in parking lots, earned a bad reputation because they can be hard on cars and create noise. Speed humps are the newer generation of speed bumps. Speed humps are parabolic or trapezoidal in shape, are longer than speed bumps (generally 12 to 14 feet long), are not as noisy, and are easier on cars. They consist of a rounded raised area placed across the road. Speed humps are a low-cost solution and tend to be the most effective in limiting speeds to 25 mph, when closely spaced along a roadway.

Speed tables are flat-topped speed humps that stretch across the road. They also can be used as raised crosswalks for pedestrian crossings. Speed tables bring the street up to sidewalk level making it pedestrian territory with slower traffic and better pedestrian visibility. Speed tables are more expensive than speed humps and may be too gentle to solve certain speeding problems. However, they are often allowed on arterial roads where speed humps are generally prohibited because of the needs of emergency vehicles. In Boulder, Colorado, speed tables are used extensively and help make streets safer. Fire and police departments have come to accept them as a positive aspect of the Boulder roadways.

Other communities have chosen textured pavements—roadway surfaces paved with brick, concrete pavers, stamped asphalt, or other materials—that produce enough vibration to tell the motorists to slow down. These solutions tend to be loud and can be as hard on bicycles and pedestrians, especially those with disabilities, as they are on cars. At best, textured pavement can be used as a visual cue to slow down.

## Barriers

Traffic diverters, medians, islands, and other barriers can discourage or eliminate through traffic on certain streets in the neighborhoods surrounding schools. Selected streets, designated as safe routes, are designed to decrease traffic and give pedestrians and/or bicyclists safer passage. While traffic is not totally eliminated, it is often partially diverted to discourage through traffic. Some schools use diverters to direct traffic in a circuitous route, funneling cars in one direction and pedestrians in another. It's important to test this solution before permanent implementation to ensure that diverted traffic does not create additional problems and that emergency access needs are not adversely affected.


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Other traffic-calming techniques narrow the roadways and use landscaping and curb extensions, roundabouts and traffic circles to create the effect of a narrow winding road. Bulb outs or curb extensions extend the sidewalk or curb line into the street, reducing the street pavement width. Traffic circles and roundabouts are often used instead of stop signs to slow traffic.

## Look Left Right Left

Marked crossings can identify the best places to cross the street. Clearly marked crosswalks, signage, special lighting, and raised crosswalks alert motorists to pedestrian activity and increase their willingness to yield. Typically, zebra-style or ladder-crossing designs are used for streets with higher traffic volumes while the simpler parallel lines are used for lower-volume streets.

Most engineers prefer to maximize the use of existing crossings and to minimize duplicate crossings. It's equally important to look at current usage and identify logical crossing needs. Mid-block crossings, while not encouraged by traffic engineers, are often used on school routes where large numbers of children need to cross the street.

If there are inadequate gaps in the traffic, (one gap per minute, on average), a pedestrian actuated signal and/or a center island refuge area can be installed. Given that signals only operate with foot traffic, they do not cause undue delay to vehicles during periods of low pedestrian use.

Center refuge islands are often more successful on some streets because pedestrians can cross the street in two stages and are not delayed by the traffic signal. Some other techniques include reducing the distance through curb extensions and creating more visibility through raised crosswalks.

## Signals

The City of Palo Alto, California, added a traffic signal at Walter Hay Elementary School that is

Profile: *Getting Results*

In New York City, the Transportation Alternatives Safe Routes to School project worked to create safe walking corridors at 13 Bronx elementary schools in 1997, adding another 18 schools during the 1998-1999 school year. The program has been so popular that schools are vying to participate. At Our Lady of Refuge School, parents seized their chance to make their children safer. They set up tables outside Our Lady of Refuge church and delivered surveys to entire apartment buildings. Ultimately, parents collected more than 200 surveys listing traffic dangers to their children.

In 1997, hundreds of surveys were collected from the 13 selected schools. Safe Routes to School used city and state pedestrian crash data and mapped routes using geographic information systems (GIS) software to put statistics behind the observations and experiences of parents. Along with engineers and planners from the New York City Department of Transportation, changes in signage, signal timing and traffic calming methods were planned, installed, and safe-walking routes created. The city's transportation department is installing speed humps and elevated crosswalks as a first step, and will install sidewalk extensions and other measures in the future.


# Safe Streets

Profile: *Bicycle Boulevard Attracts Students and Commuters*

Some cities have designated specific streets primarily for bicycles. For instance, the City of Palo Alto, California, successfully established a Bicycle Boulevard. Bryant Street was converted to a Bicycle Boulevard by installing traffic calming devices that prevent motorists from using the street as a thoroughfare, but still allows local residents access to their homes. Stop signs were removed to increase bicycle speeds.

The boulevard extends about three miles through residential neighborhoods and the downtown and past a number of schools, including a high school and middle school. Several barriers and landscaped islands allow bicycles and pedestrians to travel through but prohibit cars from using it as a through street. In one location, a bridge over a creek is too narrow for cars, but perfect for bikes. Traffic signals allow only bicyclists and pedestrians to go through one intersection while cars must turn right.

More than 600 bicyclists use Bicycle Boulevard daily. Residents are pleased with the results of the changes to the street and are willing to put up with the inconvenience of driving a little further to circumvent barriers in exchange for the serenity of living on a quiet street.

timed to remove the conflict between pedestrians and traffic. There is a split for the left turn onto the side street so that everyone is stopped, including people in the crosswalk. In Davis, California, the city purchased special signals for each mode – bicycles, pedestrians and traffic. The bicycle signal is a standard signal, but instead of balls, there is a bike icon. Bikes go on the green bike icon while motorists see a red light. The pedestrian signal lasts longer than the other two, giving pedestrians the extra time needed to cross the road.

## Bridges

Grade separated pedestrian overpasses are installed when it is necessary to physically separate the crossing of a heavy volume of pedestrians from a roadway with steady motor vehicle traffic. While often considered prohibitively expensive, a little ingenuity can sometimes greatly reduce the cost. When the City of Davis, California, was building the Covell Greenbelt Trail, it needed a means of crossing Covell Boulevard, a major arterial road. Staff tracked down an old bridge that formerly crossed over Interstate 5, but was removed when that portion of the freeway was widened. The bridge had been stored in a Caltrans (California Department of Transportation) maintenance yard and the city was able to get it at no cost. The only expenditures were for supports and installation. Now young children can safely ride their bikes directly from home to the Greenbelt, over the arterial, and into the park that borders the school playground. On another section of the trail, an old railroad car was reconfigured as a bridge and offered as another low-cost solution for a creek crossing.


# Safe Streets

Profile: *Bicycle Sheds Get Makeover*

The bicycle sheds at Huntington School in York, England, were dilapidated and locks were inadequate, making the bikes easily accessible to thieves and vandals. As part of its Safe Routes to School Program, the school chose to refurbish the sheds with the help of students and local artists. During the summer, new fencing, structural improvements, and sculptures were added to the sheds, incorporating students' designs. The following year, 200 bicyclists were riding to school on a regular basis—a 20 percent increase. The improvements have been welcomed as a practical facility for students, a visual focus for the Safe Routes to School project, and an environmental improvement for the school.

## CREATE A SPACE FOR EVERYONE

### Sidewalks are Pedestrian Territory

Parents feel more secure when their children have a place to walk, separated from traffic. Sidewalks alone do not reduce vehicle speeds; however, crowded sidewalks remind motorists that neighborhoods are designed for people. Even with traffic speeds of 15 to 20 mph, children, senior citizens, and people with disabilities walk more safely using sidewalks. A 1997 study by the University of Washington concluded that higher numbers of pedestrians were found in areas with more complete and continuous sidewalks, walkways, crossings, and other pedestrian facilities.

In many instances, rural and 1950's-style suburban areas lack sidewalks or, if available, the sidewalks have rollover curbs that allow parked cars to block access to pedestrians. Unfortunately, residents sometimes resist the installation of sidewalks in order to preserve their "rural" flavor. Ironically, the higher speed of traffic and general absence of lighting in rural areas makes the need for pedestrian pathways even more imperative.

Urban areas are not immune from sidewalk issues. Children in lower-income neighborhoods are more likely to be walking than their more affluent suburban counterparts, yet they negotiate more dangerous streets. In a study titled "Caught in the Crosswalk" (Surface Transportation Policy Project, 1999), it was found that Latino and African American children in California are disproportionately represented among all pedestrian fatalities and injuries among people under 21.

Sidewalks should be a minimum width to allow at least two people to walk comfortably side by side (standards outlined in the Americans with Disabilities Act, or ADA, recommend at least five feet). Where large numbers of children gather, sidewalks should be even wider with clear landscaped edges to separate them from the street. Sidewalks need to be flat, with curb cuts at corners, but without sloping driveways.

### A Bicycle Friendly Community

Adults should lead by example. In communities where the bicycle is more accepted and used extensively by adults for short trips, there will be higher levels of children bicycling to schools. For example, the City of Davis, California, has 30 miles of bike trails and 35 miles of continuous bike lanes, including 11 grade-separated intersections and special bicycle traffic signals; in Davis,


# Safe Streets

Profile: *New Jersey Rail Trail Offers Access for Students*

The 10-mile Henry Hudson Trail in Monmouth County, New Jersey, passes through eight towns and by 18 schools (two high schools, one vocational technology school and 15 elementary schools). While providing a safe route to school was not the primary objective driving trail development, the trail has since become one of the primary transportation corridors used by students to get to school. According to the Monmouth County Parks System trail planners, students use the trail extensively and foot travel has become the primary mode of travel for students. Three schools directly abut the trail and trail planners were careful to include direct pathway connections between the school and the trail in order to encourage trail use. In one case, the trail also is used as a primary access point between the school and an adjacent park, which serves as athletic fields for the school. In several informal trail user surveys conducted by the Park District, users repeatedly said that they perceived the trail to be a safer place to walk than sidewalks.

bicycles are used for more than 20 percent of all transportation trips with hundreds of bicycles crowding the bike racks at the middle school.

Bicycle facilities need to be developed in a comprehensive manner to provide continuous, uninterrupted access to all routes to school.

Schools can encourage more bicycling by teaching bicycle safety, offering bicycle repair classes, and providing adequate bicycle parking facilities that shield bikes from inclement weather and that guard against theft.

Bicycle routes are divided into three classifications:

A shared use bike path is entirely separate from the road. No motor vehicles are allowed on or near these paths, which also serve as multi-use pathways.

A bike lane marked in the road is four feet wide, or five feet wide if adjacent to parked cars.

A bike route is simply a route without any designated striping for bikes but has signs that designate it as a bicycle route. These facilities are usually on neighborhood streets without heavy traffic.

## Blazing Trails

Communities commonly use trails and pathways in parks and other open spaces as both recreational facilities and travel corridors. Many older neighborhoods still have footpaths from the pre-automobile era, which can be reclaimed by clearing away the brush and weeds. Newer developments are incorporating multi-use paths into their circulation systems. The City of Davis, California, requires all new developments to set aside 10 percent of the property for pedestrian and bicycle paths.

Abandoned railroad rights-of-way have become popular venues for conversion into multi-use pathways. Since 1986, more than 11,000 miles of rail lines have been converted to multi-use paths in the United States, according to the Rails to


# Safe Streets

Profile: *Drive Safely–Citizens on Alert*

Edna Maguire School in Mill Valley, California, produced Citizen's Warning forms and made the forms available at the school office. Anyone who witnessed a speeding or dangerous driver filled out a form and turned it in to the police department, who then sent out a warning letter to the registered owner of the vehicle. The letter notifies the vehicle's owner that they have been observed breaking traffic laws and warns them about repeating such behavior.

Trails Conservancy. These trails are an excellent way to provide separated paths for children to walk and bike to school, unimpeded by motorized traffic. Parents are more comfortable allowing their children to travel alone on these trails, because there are fewer potential conflicts with automobiles. Trails that are well lit can be used in the early morning and evening hours in winter. Trails that are heavily used also provide a safer environment for children with many more "eyes-on-the-street" to protect against "stranger danger."

Off-road trails require adequate connectors when schools are not directly on the path. The designation of specific routes that are less traveled by cars should be accompanied by easy-to-read signage and striping, where appropriate. Bright colors are helpful. Children need to know the exact safe route that will take them from the path through the neighborhoods to the school.

## WHAT YOU CAN DO NOW

Some improvements can be achieved with little planning and at minimal cost. For example, restriping existing crosswalks and bike lanes for better visibility only takes a coat of paint. Most infrastructure solutions, however, require more time and cost more. In the meantime, there are other measures that can be implemented immediately that will help make the streets safer.

### Enforcement

Your local law enforcement agency can begin to increase its presence around schools during the morning and afternoon hours when children are on the road. People tend to be more reserved in their driving when they expect the police to be present. Targeted law enforcement operations help to reduce speeds and encroachment onto crosswalks. The City of Oakland, California,

Profile: *Undercover Enforcement*

The City of Glendale, California, implemented an aggressive enforcement operation, using plain-clothed policemen as decoys trying to cross the street on foot. When they would get cut off by speeding cars, the offending motorist would be surprised to find that the pedestrian was, in fact, a plain clothed policeman. The city got the media's attention by allowing journalists to try it themselves. The technique paid off and pedestrian deaths were eliminated in the year following the program.




implemented a tactical operation aimed at motorists who refuse to yield to pedestrians in unsignalized crosswalks. In Los Angeles, an aggressive pedestrian safety law enforcement operation issued 7,200 citations in one year alone.

## Education

Drivers need to be constantly reminded to follow traffic laws. Too often, when people are in a hurry – such as when they're trying to get their children to school – they forget that they are driving a dangerous weapon. Even good drivers must watch out for children who may dart out in front of them. Educational tools about traffic safety issues also help raise awareness in the community and improve driving behavior.

Most communities start by placing additional signage on the roads leading to the schools. Banners and posters created with the children's participation will get people's attention. Combining signage with a comprehensive education campaign can increase overall effectiveness. Hold discussions at schools and send out driver's safety alerts to parents and to the surrounding community. Neighborhood groups can circulate "drive safely" pledges. Principals should clearly define the school's drop-off policies and then strictly enforce them.

## Escorts

Escort programs provide adult supervision for children walking and biking to school. A community's greatest resource is its people. These volunteers can provide the added protection for children that satisfy many parents' concerns. The most popular program used to date is the "Walking School Bus." This program, first introduced in Australia, recruits parent volunteers to accompany children to school. The parent(s), often wearing special clothing to identify them, pick up children at their homes or designated "stops" and they all walk to school together. Greater numbers of children are more visible to motorists and provide an additional safety factor. Often the adult pulls a wagon or cart filled with the children's book bags giving the kids freedom to enjoy their walk. This program can also be done with bicycles ("Bike Trains").

For more detailed information on how to start a Walking School Bus in your neighborhood, order Kidswalk-to-School, published by the Department of Health and Human Services' Centers for Disease Control and Prevention (www.cdc.gov/nccdphp/dnpa/kidswalk/index.htm).

Other escort programs place volunteers at strategic locations to act as monitors. In Southern California, many communities have introduced Safe Passage Programs to reduce crime and violence near schools. Lancaster, California introduced Project Safe Walk providing identified and monitored routes for school children to walk to and from their schools. Santa Ana's Safe Corridors program had volunteer parents patrol the routes to and from school in an area where children have experienced problems with gangs and thefts of lunch money. These parents carry cell phones programmed to reach the school and police and fire dispatchers. If parents aren't in the area, students can duck into identified houses where residents have offered shelter.

Crossing guards can act as added protection for children at controlled intersections and are vital at uncontrolled crosswalks. Many schools have a budget to hire crossing guards and police can provide assistance in training. Some schools organize volunteer crossing guards where funding is not available. Retired people often enjoy volunteering to help children cross the street. Even if crossing guards are volunteers, they should be trained.

# Safe Streets

## HOW TO FUND A SAFE ROUTES TO SCHOOL PROGRAM

As your program grows, you'll need to secure funding to continue the program. This brief funding guide outlines two major types of funding that will help your Safe Routes to School program become more successful: Capital Funding and Program Funding.

### Capital Funding

Capital funding is used to create infrastructure. Cities and counties are always seeking grants for capital funding to build sidewalks, create bicycle lanes, develop multi-use pathways, and to complete other projects identified in the "Safe Streets" section of this Toolkit. It is important to note that cities and counties generally must be the "applicant" for any capital funding projects that relate to changing civic infrastructure. By collaborating with your local jurisdiction, you can help them "find the money." Because funding programs vary state to state (and are always changing), the following list of funding sources is only intended as a general guide:

#### Transportation Enhancements:

In 1998, Congress passed the Transportation Equity Act for the 21st Century (TEA-21). There are many programs within TEA-21, one being Transportation Enhancements, which includes bicycle and pedestrian projects. Each state was given a share of Transportation Enhancements funds to distribute on a competitive basis, and local funding was also made available through Metropolitan Planning Organizations (MPOs).

#### Congestion Mitigation and Air Quality (CMAQ) funds:

CMAQ also was a TEA-21 funding program slated for use for projects that improve air quality (such as walking and bicycling).

#### State Funding Programs:

Several states have bicycle and/or pedestrian funding accounts that are available on a competitive basis. In California, for example, there is the Bicycle Transportation Account and the Safe Routes to School account.

#### Air Quality Management Programs:

Several states and local regions have Air Districts that are set up to protect and improve air quality. There are often competitive grant programs for which bicycle and pedestrian projects are eligible.

#### Metropolitan Planning Organizations (MPOs):

Every region within a state is legally required to have an MPO that acts as a conduit for distribution of federal transportation funds. MPOs are also responsible for creating long-term transportation plans and generally give priority to transportation projects already in the MPO's plans.

#### Local County and City Funding:

Most cities and counties adopt budgets on an annual basis. Many cities and counties have




included funding in their general fund budgets for bicycle and pedestrian projects. In addition, some projects are inexpensive and can often be handled without a grant (such as striping crosswalks, installing signage, and marking bicycle lanes on roads with adequate width).

### Sales Tax funding:

Many counties have passed transportation sales taxes that specify funding for transportation infrastructure. For example, in Alameda County, California, five percent of the county's transportation sales tax funding will go to bicycle and pedestrian projects.

## Program Funding

As you run your Safe Routes to School program, you may also find that you need funding to support the overall program, including hiring a coordinator, purchasing incentives, printing newsletters, etc. When looking for funding to run the program, be sure to emphasize that Safe Routes to School improves the entire community by relieving traffic congestion, improving the environment, creating alternative transportation routes, and improving the health of children and the community. In order to receive tax-deductible donations (which is important to most donors), you will need to affiliate your Safe Routes to School group with a non-profit agency or school district. The following provides some general sources of possible funding (always look locally to support your program):

### Corporations and Businesses:

Contact local corporations and businesses to ask if they will support your program with cash, prizes, and/or donations such as printing services. It's good to ask your parent leaders where they work; they often can help you get a "foot in the door." When contacting a company, ask for information about their "community giving programs."

### Foundations:

There are institutions throughout the country that provide funding to non-profit organizations. The Foundation Center is an excellent source of potential funding sources. Narrow your funding possibilities by first searching for geographic


# Safe Streets

region of giving. Look under categories for transportation, health, environment, and community building.

### Individuals:

Statistically, individuals give more money than corporations and foundations combined. You can begin a local fund drive by working within your existing network of team leaders, and outreaching to the larger community.

### Events:

Many programs have raised funds by holding special events. Use the Safe Routes to School theme to attract funding. Hold a walkathon or a bicycling event. You also can choose more traditional fundraising efforts, such as bake sales, concerts, talent shows, etc.

### Parent Teacher Associations (PTAs) and School Districts:

Many PTAs have funds to distribute to school programs and often schools have safety funding. Contact your local PTA and the School District to see if there is a method for applying for a grant.

### City and County Funds:

Some cities and counties have funds available to support Safe Routes to School programs. Some also allocate a portion of their local Transportation Enhancement funds to Safe Routes to School educational programs.

### State Highway Safety Funds, "402 Funds":

Each state receives Federal Highway Safety Funds also called 402 Funds. Although each state handles this program differently, most funding is available on a competitive basis for projects that increase road safety.

Ultimately, finding capital and program funding for your Safe Routes to School program will be an ongoing effort that requires cooperation with local government. Funding takes time, so don't be discouraged. You can start your program small and build on your successes.

## PUT IT ALL TOGETHER

Slower traffic and a comprehensive non-motorized network create a more livable community where more people can choose to walk and bike with ease. When you create a SR2S Improvement Plan, make sure that the entire community has an opportunity to participate and comment on the plan. The more people involved in creating the plan, the better the chances that it will be accepted by the community. Communicate often with the public by holding public workshops and forums and publishing your findings where people will read them. Work closely with elected officials and town staff and keep them apprised of your progress.

Combine your Safe Routes Improvement Plan with events and activities in the school. Engineering solutions take time—sometimes years—but short-term solutions and special events can generate immediate results. When people start to see more children on the road, the program will take on a life of its own. Most SR2S programs experience a wealth of support from their communities. When streets are safer for children, they are safer for everyone.




**Step by Step:**

# CREATING A SAFE ROUTES TO SCHOOL IMPROVEMENT PLAN

1) Form a Safe Routes to School Task Force that involves:
   a. Parents
   b. School administrators and teachers
   c. Neighbors and community organizations
   d. City officials and staff members
   e. Students

2) Evaluate existing conditions through:
   a. Parent surveys
   b. Student surveys
   c. Traffic counts
   d. Injury data
   e. Speed checks
   f. Safe Routes Checklists

3) Expand your circle by:
   a. Presenting findings to the community
   b. Holding a design workshop
   c. Having an open house
   d. Convening a strategy meeting

4) Develop a project list and accompanying map by:
   a. Identifying problem areas
   b. Setting priorities
   c. Grouping projects by geographic area
   d. Identifying short term and long term solutions
   e. Costing out your program
   f. Using the whole toolbox of solutions

5) Make it official by:
   a. Going through the regular planning process
   b. Having your plan adopted in the city plan

6) Get improvements funded by:
   a. Developing a funding program
   b. Identifying funding opportunities
   c. Working with your city to apply for grants

# Safe Streets

## GENERALIZED ASSESSMENT OF TRAFFIC CALMING MEASURES

| Measure | Reduces Traffic | Reduces | Noise | Loss of Parking | Restrict Access | Emergency Impacts | Maintenance | Cost |
|---|---|---|---|---|---|---|---|---|
| Traffic Education Campaign | Maybe | Maybe | No change | None | None | None | No | Varies |
| Speed Display | Yes | No | No change | None | None | None | No | $250/day |
| Neighborhood Sign | Maybe | Minimal | No change | None | None | None | No | $200/sign |
| High Visibility Crosswalks | Maybe | No | No change | None | None | None | Yes | $1K-$5K |
| Police Enforcement | Yes | Maybe | No change | None | None | None | No | $75/hour |
| Narrowing Lanes | Yes | Maybe | No change | None | None | None | Yes | $1K-$3K |
| Speed Limit Signing | Maybe | No | No change | None | None | None | No | $200/sign |
| Stop Signs | Maybe | No | Increase | None | None | None | No | $200/sign |
| Signing Restrictions | No | Yes | No change | None | Yes | None | No | $200/sign |
| Bike Lane | Maybe | No | No change | Maybe | No | None | Yes | $25K-$75K/ mile |
| Sidewalk | No | No | No change | Maybe | No | None | Yes | $20-$30/ foot |
| Median Island | Maybe | Yes | Decrease | Maybe | Yes | Yes | No | $10K-$75K |
| Gateway | Yes | Yes | Decrease | Maybe | Yes | None | No | $10K-$20K |
| Curb Extension | Maybe | No | No change | Yes | None | Some | Yes | $10K-$20K |
| Choker | Yes | Maybe | No change | Yes | None | Some | No | $15K |
| Speed Hump | Yes | Maybe | Increase | Maybe | None | Yes | Yes* | $5K |
| Raised Crosswalk | Yes | Maybe | Increase | Yes | None | Some | Yes* | $5-$10K |
| Raised Intersection | Yes | No | Increase | Yes | None | Yes | Yes | $25K-$50K |
| Traffic Circle | Yes | Maybe | No change | Yes | None | Some | Yes | $15-$25K |
| Intersection Channelizing | Yes | Maybe | No change | Yes | None | None | Maybe | $15-$20K |
| Chicane | Yes | Maybe | Maybe | Yes | None | Yes | Maybe | $20K-$40K |
| Creek bridge (short) | No | No | No change | None | None | None | Yes | $50K-$100K |
| Movement Barrier | Maybe | Yes | Decrease | None | Yes | Yes | Yes | $5K |
| Entrance Barrier | Maybe | Yes | No change | Maybe | Yes | Maybe | No | $15-$20K |
| One-way Streets | No | Yes | No change | None | Yes | Yes | No | $5K |
| Diagonal Diverter | Yes | Yes | Decrease | Maybe | Yes | Maybe | No | $15-$35K |
| Street Closure | Yes | Yes | Decrease | Yes | Total | Yes | No | $20-$35K |

*Compiled by David Parisi and Associates*


# Classroom Activities


# Classroom Activities

## CLASSROOM ACTIVITIES

Classroom instruction motivates children to participate in the Safe Routes to School (SR2S) program through fun activities that encourage them to walk and bike. The lessons teach students how their transportation choices affect their community, the environment, and their health. They also give students a better understanding of their streets and neighborhoods and ensure that they know basic traffic safety.

### Safety Skills are Essential

While most parents teach their children some safety skills, it takes time and practice for a child to retain that information. Every school that encourages children to walk and bike must ensure that each child has knowledge of basic safety rules, can identify traffic signs and understands how to behave safely and responsibly. Older children should be taught bicycle skills including basic traffic laws, proper equipment, and how to control a bicycle.

### Communication Method is Key

The method of communication with children is as important as the information itself. Teaching through hands-on experiences, including skill-building physical exercises, games that test their knowledge, and workbooks for practicing understanding, will increase retention and develop abilities that are real life skills. Bike Rodeos, Walk and Bike to School Days, and mapping exercises provide opportunities for children to try out their skills. Class projects will teach the health benefits of good exercise as well as the environmental improvements that occur when there are fewer cars on the road.

### Schedule Time with Teachers

Teachers have a full plate of required lessons and need plenty of notice in order to make time in the classroom schedule for SR2S. Schedule your classroom time early in the school year and try to schedule the entire year at one time. Safety training and related lessons fit nicely into a Physical Education (P.E.) curriculum. If your school does not have a P.E. program then you can make the case that these lessons will help the school meet its P.E. requirements.

### Engage Law Enforcement Assistance

Many law enforcement agencies have special programs that include traffic safety training for children. Check with your local police, sheriff, or highway patrol and see what they have to offer. There also are organizations that specialize in conducting Bicycle Rodeos in schools. They can bring an obstacle course onto campus that simulates traffic situations and provides an entertaining experience for the children.

## SAFETY TRAINING

### Pedestrian Training (for first and second-graders)

When developing a safety curriculum it is important to identify what children should learn as a result of the training. Pedestrian training programs should ensure that students understand, and practice, basic pedestrian rules. There are many ways to teach safety skills. There are videos available that give children a fun introduction to traffic safety (see Resources). You should always follow a video with an active class discussion. A hands-on exercise will further strengthen the students' skills and retention. Make the lessons fun and engaging by presenting the material as a game.

Basic pedestrian lessons should include:

When you walk, run, inline skate, skateboard or ride a bike, stop at the curb or the edge of the street before you cross.


# Classroom Activities

## BASIC LAWS AND SIGNS FOR BICYCLING

- Stop, look left, then right, and then left again before entering the roadway from a driveway.
- Stop or slow down, look left, then right, and then left again before crossing an intersection.
- Dismount and walk the bike across busy intersections.
- Always ride your bicycle on the right side of the road, with traffic.
- Yield to pedestrians.
- Stop for emergency vehicle sirens.
- Use right and left hand turn signals.
- Signal to slow and stop.
- Know the meaning of signs and symbols (Yield, One Way, Do Not Enter, Railroad, etc.) and always follow them.

Look left, look right, and look left again, turning your head to see over your shoulder, before you step into the street to cross to the other side.

Be aware that cars may not stop even if you have the right-of-way.

Step into the street only if you do not see any moving cars.

Never go for a walk with a stranger. Only walk with someone who your parents say is okay.

Walk on the sidewalk or a walking path. When there is no sidewalk, always walk facing traffic.

Listen for the sound of car motors, car doors, sirens, and horns before you step into the street.

Never run into the street to catch a ball or chase a toy, a friend, or a pet.

Never run across the street; walk when crossing the street.

Do not cross in the middle of the street unless there is a crosswalk and signal or a crossing guard.

Cross at corners and use crosswalks whenever possible; always stay within the lines of the crosswalk.

Use intersections with signals and pedestrian buttons whenever possible.

Know what the different signs and signals mean and always follow them.

Be careful around parked cars; stop, look left, look right, and look left again before stepping out from between parked cars.

Early in the morning or in the evening and at night, wear reflective and/or light colored clothing, carry a light, and/or wear a flashing light.

## Bicycle Safety Training (for third, fourth, and fifth-graders)

Children love to ride their bikes. Cycling gives them a sense of freedom and independence and

# Classroom Activities

The implications for EFFECTIVE BRAKING are as follows:

- Braking with the rear brake alone will avoid pitch-over, but it is not very effective.
- In theory, the fastest stop can be made with the front brake, but only the slightest error will pitch you over.
- The best system for a fast, safe stop is to use both brakes, which produces the optimum deceleration. If the rear wheel starts to skid, this indicates that you are un-weighting the rear wheel too much. Therefore when the rear wheel skids, ease up slightly on the front brake.
- When braking hard, slide your body back on the saddle as far as possible. You can transfer even more weight to the rear wheel by moving your buttocks straight back.

besides, it's a lot of fun. Although each school has its own policy, usually schools don't allow children to bike to school on their own until the third grade. Bicycling is more complicated than walking and requires knowledge of a more sophisticated set of rules and skills. A bicycle safety curriculum should ensure that children have a comprehensive knowledge of traffic safety because, as bicyclists, students have the same responsibilities as drivers to obey traffic laws. Cyclists also should have the right equipment, including a snug-fitting helmet and the right size bike, in proper working order.

Beginning bicyclists need to be given exercises that will help them learn to control their bicycles. Remember that children's depth, distance and speed perception, as well as their eyesight and hearing, are not fully developed. They need explicit instructions on dealing with traffic, such as not to ride into the path of oncoming vehicles.

### Bicycle Safety Lessons should include:

Wearing a helmet that fits properly and is correctly positioned

Riding in a smooth, straight and predictable manner

How to be in control of their bicycle at all times

How to scan the road by looking ahead, side to side and over the shoulder, to see from behind without swerving

Riding at a safe speed

How to stop quickly and remain in control

Traffic signs and signals

Right and left hand turn signals

Signaling to slow and stop

Proper bike fit

Bicycle mechanical safety checklist

Identifying and avoiding high-risk situations and behaviors

How to keep control of the bicycle when reacting to hazards

How to recognize and interpret communications from other road users and the importance of making eye contact

Safety equipment

Bicycle theft prevention

## Bicycle Rodeos

Bicycle Rodeos are used to teach safety skills while giving the children a fun exercise. They are usually layed out with chalk, traffic cones, stop signs and sponges to designate areas or create obstacles. Sophisticated courses have props of


# Classroom Activities

An excerpt from The Guide to Bicycle Rodeos
*by John Williams and Dan Burden*
"One surprising thing that we've learned from the crash studies is this: while the kids involved in car/bike crashes were most often at fault, they generally knew the traffic law they violated. They violated them anyway because of competing needs ('Got to get home or Mom will be mad') or faulty expectations ('No one ever comes down that street...why stop at the stop sign?'). For this reason, expecting kids to obey traffic rules simply because we tell them to is unrealistic. The old rote learning programs that give 'dos and don'ts' will not do the trick. The kids need to see first hand why rules help people get where they are going."

cars and buildings to simulate a street environment.

The objective of the Bicycle Safety Rodeo is to teach children the importance of seeing, being seen, and remaining in control at all times when riding a bicycle. This is achieved through a series of bike handling drills and traffic situation simulations. Begin each rodeo with an explanation of what students are expected to demonstrate.

We want to see that students:

Are aware of what is going on around them

Are maintaining their balance and are in control of their bikes

Are communicating with other road users through turn signals and eye contact

Eight different stations give students the opportunity to practice a variety of bike handling skills and procedures for operating a bike safely and legally while in traffic. Each station takes ten minutes to complete, when working with groups of about twelve children. The whole group instruction at the beginning of the rodeo will require a minimum of ten minutes.

The children are given a number and instructed to assemble on the black top with the Course Marshal who is holding a sign with their number. The Marshals will ask children to form a row facing the safety courses.

Always begin with a Helmet Fit, Bike Fit and ABC Quick Check (bike safety checkup). Wearing a well-fitted helmet and having the right-sized bike in good working order cannot be overemphasized.

Instruct the group to check their helmet fit. It must be snug and level with room for no more than two fingers between the straps and the chin. All Course Marshals will look to see that helmets are properly fitted. If a helmet or a bike is not fitting correctly or a bike is not working properly, the child must see a Course Marshal designated to assist with adjustments.

Have all students stand over their bikes and explain that they must be able to stand over the top tube with both feet on the ground. Model this with a bike.

Explain to the group that this next procedure must be followed every time you ride; it's as easy to remember as your ABCs and it's quick as well.

A is for air, check tire pressure.

B is for brakes, check your brakes.

C is for cranks, chain and cassette. Make sure the cranks are not loose, the pedals are attached tightly to the cranks, and the chain is on a ring up front and the cassette in the back.

Quick is for the quick releases on the wheels and the seat; make sure they are tight.


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Check is for a slow, smooth start to make sure you are shifting properly. (Instruct them to do this when they start their first station.)

## The Safety Stations

In the Safetyville Traffic Course you simulate simple street-riding situations, with an emphasis on:

- Stopping at every edge and intersection
- Looking left, then right, then left again before entering or crossing a roadway or intersection
- The danger of pulling out from behind an obstacle
- Stopping and starting smoothly
- Communicating with other road users by signaling and making eye contact

Give specific instructions in the proper procedure for pulling out of a blocked driveway; stopping at the edge, looking left, then right, left again, signaling to the left, then if it is clear, pulling out into the street. Students move on to negotiate four intersections: two left-hand and two right-hand turns, repeating the full procedure at each intersection.

The role of extra Course Marshals (possibly played by children who are not participating in the rodeo) is to act as human stop signs at each intersection. They check for compliance with the proper procedure of stop, look left, right, left, signal, and proceed only of it's clear. Human stop signs should model the procedure when necessary.

Prop cars, motorcycles, pedestrians, and other bikes (portrayed by additional Course Marshals) can move around the course, requiring that children make real decisions about how to react and proceed safely. All Marshals should talk to the riders, offering positive reinforcement and encouraging feedback.

The Slalom Course is an exercise in bike handling that is designed to challenge all ability levels while ensuring success for every rider. Instruct the riders that the chalk lines are drawn close enough to make staying within the lines difficult, but that traffic cones are placed far enough apart that any child should be able to navigate the course while remaining between the cones. The Course Marshal will monitor the distance between riders and their speed. Talk to the riders, offering positive and encouraging feedback. Replace cones when they get knocked over.

The Turtle Race is a balance exercise. Ask the riders if they find it harder to control their bikes at slower speeds. Most likely, they'll agree. Explain that this is a balance exercise. The last person across the finish line is the winner. Riders cannot put their foot down and must stay within their lane. Talk to the riders, offering positive reinforcement and encouraging feedback. Cheer the riders enthusiastically.

The Rock Dodge demonstrates the technique of flicking the front wheel to avoid a sudden obstacle, without swerving wildly. The course is laid out in a circular fashion. The sponges are arranged in a pattern that creates three narrow chutes. Instruct the students to warm up by riding the course and keeping both wheels inside of the sponges when they come to the chutes. After students have done this several times, place the three "rock" sponges in the center of each chute.

Tell students that this simulates a situation riders often encounter; a sudden appearance of obstacle in the rider's path, but the rider must stay within a narrow area. Instruct them to steer away from the rock at the last moment, which will cause them to lean in the opposite direction. Counter this by over-steering in the opposite direction.


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The Quick Turn practices the need to make a quick decision to execute a sharp turn. Instruct the riders to line up and ride through the marked chute toward them, just as the rider reaches the end of the chute, the Course Marshal will direct each rider to turn right or left. Instruct them to ride out to the marker cone and circle back to the line and repeat the drill. Encourage them to build up speed as they become comfortable with the activity.

The Chaos Corner demonstrates the need for traffic rules, signals and signage. Designate an area by placing four tall safety cones, which the riders must remain within. The Marshal will allow riders to enter one at a time, the object being to ride chaotically within the confined area without touching another rider. If the Marshal sees riders making contact, they must be removed. Stop the traffic after about 6 or 7 minutes and ask the riders what rules would make the situation less chaotic. Try their ideas. At the end of the station, ask the riders if the new rules helped.

The Quick Stop teaches the ability to brake suddenly and maintain control while stopping quickly. Teach the riders to shift their weight back when braking. By transferring their weight to the rear wheel, the rider avoids going over the handlebar, increases the braking power of the rear wheel, and stabilizes the stop. The course involves several lanes of riders taking off at once, with the Marshal positioned near the start. Once the riders have gone past them a short way, the Marshal blows a whistle, signaling the riders to stop immediately. The object is to stop fast, remaining within the lane, even if it results in a skid.

This exercise demonstrates the need to be able to respond quickly and maintain control while braking. The Marshal will monitor riders' ability to make a sudden stop without veering from their path. Have the riders resume and encourage them to build up speed, then randomly blow the whistle again. Do this several more times as the riders proceed down the lane.

Once everybody has had at least one turn, the Marshal will demonstrate shifting your weight back while braking. Explain that this move will make stopping quickly easier and safer because it keeps you from going over the front of the bike, and putting weight on the rear wheel makes it stop faster.

The Figure Eight course practices bike handling while challenging riders to use their peripheral vision to adjust their speed. The layout consists of two or more circles drawn on the pavement and outlined with small safety cones. The Marshal will allow each child to ride the course as a warm up. The Marshal will then feed the riders onto the course one at a time, until all the students are on the course at once. Instruct them that they must avoid collisions at each intersection and avoid running into the rider ahead of them. The Marshal will monitor speed and distance between riders.

## Training

The Nevada State Education Office of Bicycle and Pedestrian Safety provides instructor training for Bicycle Rodeos that includes classroom and field instruction. Classroom time includes direct instruction, discussion, viewing a variety of instructional videos, and a survey of other resources. The course includes a resource binder that contains everything covered in the class, which is an invaluable tool for any instructor.

Instructors are taught the rules of safe behavior and the laws that apply to bicyclists and to automobiles while interacting with bikes. They learn how to conduct a bike fit, safety check, and helmet fit. The course includes the fundamentals of child development, which affects the way children behave in traffic and determines how children learn.

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In the field portion, the instructors have an opportunity to set up several bike rodeo drills and assume the role of student in practicing the maneuvers. This is an excellent hands-on experience that allows instructors the chance to work with a perfected rodeo set-up. The League of American Bicyclists also offers bicycle safety training courses.

## IDEAS FOR SAFETY LESSONS

*Pretests and safety pledges*

Start by evaluating your students' current knowledge of safety skills. This will help you to develop a curriculum that is both informative and challenging. Have your students and their parents sign a safety pledge to obey traffic safety laws. This ensures that the student and the parent understand the rules and have made a commitment to abide by those rules (see Resources for examples)

*Safety Signs*

This lesson introduces children to basic safety skills in preparation for a Walk and Bike to School Day by making signs and banners for the event. Students are asked to demonstrate their knowledge of the basics of safe walking (for first and second graders) and bicycling (for third through fifth graders) and will specifically address dangerous situations such as darting out from between parked cars. This is an opportunity for the teacher to informally assess the level of awareness children have for the traffic situations that are statistically most dangerous.

Discussion

- Introduce the lesson and activity by asking the students if they know the Four Fantastic reasons why we walk and ride:

  Cut down on pollution

  Get some exercise

  Help eliminate traffic

  It's fun

- Ask students if they know the most common ways cars can hurt children. Write their answers on the blackboard and have them vote on the number one and number two most common causes for crashes. (Record results)
- Ask them what they should do to prevent these kinds of crashes.
- Ask if anyone has participated in a Walk and Bike to School Day. Have a discussion about what the event is about. Further explanation and instructions may be necessary, particularly for first and second graders.

*Activity*

Explain that you will be making safety signs to carry on Walk and Bike to School Day (students can make signs to mount on their bikes) and signs to place at staging areas and in front of school.

- Ask the students to suggest messages they would like to send to car drivers. (Slow down, kids are walking here, Safe Routes to School, share the road, etc.)
- For beginning spellers, best guess spelling is okay, or some words and phrases can be put on the board to be copied. Symbols and pictures are great.
- As children finish their signs they can bring them to an adult who will attach the sign to a stick or other handle.
- If your school has a buddy program this is a great activity for older students to do with first and second graders. One way to structure the activity is to have older students write out messages on banners in big (1 to 2 ft. high)




bubble letters and then let the first and second graders fill in the letters and paint around them.

Your school can decide whether to allow children to take the signs home or collect them and distribute them at staging areas. We have found that collecting the signs at the end of the event and using them again at future Walk and Bike to School days works best.

### *Bicycle and Pedestrian Safety Quiz Show*

In this activity, students play a game that allows them to practice and develop bicycle and pedestrian safety knowledge. The game is based on the television quiz show, Jeopardy. This activity can be elaborate or simple. The simplest way is to take a piece of paper and write the point value (10, 20, 30 or 40 points) on one side and the question on the other. Use different colored paper for each category. Pin the columns of questions to a bulletin board or tape them to a wall.

Break up the class into two teams. Then have the first team pick a category and point value, such as Rules of the Road for 20 points. Read the question and ask the team to give an answer. This lesson is discussion based. Teachers should determine the number of answers a team may give for each question. It is important to elicit the answer from the students and not to give them the answers. Provide hints and prompts, and encourage them to work as a team. Be sure to discuss the reasons behind the answers.

When the team has given the correct answer, ask the other team to choose the next question. This game can be played competitively, with a prize or prizes given to the winning team. It can also be done without competition, declaring everyone a winner for knowing his or her safety rules.

Sample categories and questions:

- Walk this way

  Q: What side of the street should you walk on when there is no sidewalk?
  A: You should walk facing oncoming cars (against traffic).

  Why – It is easier for the drivers to see us.

- Safe Cycling

  Q: What are the signals for turning right, turning left and slowing down or stopping?
  A: Left arm up at a right angle for turning right, straight out to turn left and down at the right angle to slow and/or stop.

  Why – Bicyclists, like drivers, need to alert other users of the road when they will be making a change.

- Rules of the Road

  Q: True or false: You don't have to stop at a stop sign if you are on a bike and there are no vehicles coming.
  A: False

  Why – Bicyclists must obey the same rules as drivers. Even though you don't see a vehicle, that doesn't mean that one won't appear.

- Health and the Environment

  Q: What is the largest single cause of air pollution in the United States?
  A: Motor vehicle use is now generally recognized as the source of more air pollution than any other single human activity.

  Why – Oxides of nitrogen, volatile organic compounds, carbon monoxide and particulate matters are just a few of the noxious pollutants emitted by cars.

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*Traffic Officer*

Talk to the children about traffic safety. Give them examples of poor driving habits, such as speeding, not stopping at stop signs, or not yielding to pedestrians. Give children "Traffic Violation" ticket forms and have them sit in front of the school during morning drop-off or afternoon pick-up. This exercise can also be done while children are walking to school.

Tell students to record traffic violations on their tickets with the license number, the time of day, and the nature of the violation. Hold another classroom discussion to talk about the violations and how they might have been avoided. Discuss where to place posters and when to send letters to parents asking them to drive more carefully.

## MATH AND SOCIAL SCIENCE

### Student Surveys

This is a simple exercise that can be performed by students as young as the second grade. The purpose is to determine how children currently get to school. Repeat this exercise at the end of the school year. Use the same format each time or it will be impossible to accurately compare the results. For best results, conduct these surveys during an entire week and then average the results. This exercise should be used as part of collecting baseline information on school travel modes for your Safe Routes to School teams.

Have students go to each class and ask students how they got to school that day through a raise of hands. All answers should be marked down on the Student Survey School Travel Form (see Resources).

- Ask how many children walked and mark it down.
- Ask how many children biked.
- Ask how many children rode the bus.
- Ask how many children carpooled – define a carpool as two or more families where parents share driving.
- Ask how many children came alone or with siblings in a car.
- Ask how many children came some other way (i.e., skateboard or scooter).
- Students then use the results of their survey to calculate how many children in the school came to school by each mode.
- Create a bar graph or pie chart to show how the students get to school and display it prominently where everyone can see it.
- At the end of the school year, repeat the survey.
- Create a new bar graph or pie chart that compares the numbers from the beginning of the year with the end of the year.

#### Variation: Student Surveys – Middle and High School

These surveys will discover more than simply how children get to school. The purpose of this survey is to measure attitudes and feelings. Have students create a survey that asks how they get to and from school. Help the students develop further questions about their attitudes toward driving, biking, walking and transit. What influences their choices? Do they feel that biking is only for kids? Do they think riding in a car makes them more mature? Are they aware of the environmental consequences of their choices? Use a computer database to collect the information. Publish the results in a newsletter.


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## Traffic Counts

This exercise should be used as part of the Safe Routes to School team's efforts to gather initial baseline data on student behavior. It should be done at the beginning and at the end of the school year. Be sure to use the same format each time; otherwise, it will be impossible to effectively compare the results. You will get more accurate reports if you do this over several days and then take an average of all the days. The purpose is to calculate the number of cars dropping off children at school. You should:

- Determine where cars enter the school. If there is more than one entry, determine how many entries there are.
- Put two students at each entry. Start counting cars a half hour before school begins.
- Have students record the location, the date, the weather conditions and the start and end times of the traffic counts.
- Have one student record the number of cars passing the school in each direction. Have the second student count the number of cars that drop off students at school.
- Calculate the number of cars that pass the school and the number of cars that drop off students. Create a bar graph to show how the students get to school and display it prominently where everyone can see it.
- Make a school wide pledge to walk and bike more often.
- At the end of the school year, repeat the exercise. See if the SR2S program has reduced the amount of traffic passing the schools and the number of cars dropping off students.
- Hold a celebration to honor the student's success.
- Have a class discussion on how to reduce traffic by switching to alternative modes of transportation.

### Variations

- Count only the number of cars dropping off students at school.
- Count the number of students in each car.
- Count the number of children walking and biking.
- Count the number of bikes in the bike rack.

## Calculating Miles Per Gallon Adapted from "Smart Tripper," Kitsap County, Washington

Students calculate gas mileage and auto emissions and compare the miles per gallon (MPG) for different vehicles. This figure has a significant impact on the amount of air pollution and carbon dioxide emissions produced by a vehicle. Using the following steps, help your students calculate the gas mileage of their family's car:

- Write down the odometer reading when the gas tank is full.
- The next time the gas tank is filled, write down the odometer reading again and how many gallons of gas it took to fill the tank.
- Subtract the first odometer reading from the second odometer reading to calculate the number of miles traveled between the two fill-ups.
- Divide the number of miles traveled by the number of gallons of gas used. This is the gas mileage of your family's car.

### *Optional activities*

- Calculate the amount of money your family spends on gas by multiplying the number of gallons in your tank by the current price per

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gallon. Now multiply that by the number of times a year the family fills up the car's tank. Find out other costs of driving, such as oil, maintenance, and insurance and add those in.

- Calculate the amount of pollution generated by your car. Compare that with the amount of pollution generated by buses, by trains, by carpooling, by walking and biking. (Your local Air Quality District can provide this information.)

## Vehicle Travel Diary *Developed by David Engwicht of Australia*

This family activity is done over the course of a week. Ask your students to keep track of their family's automobile trips. A trip is measured from one point A to point B. If the children are driven to school on the way to work, the first trip is from home to the school. The second trip is from the school to the workplace. If you go shopping on the way home from work, the first trip is from the workplace to where you shop. The second trip is from the shop to your home. Create a chart that allows children to record the date of the trip, the origin, destination and miles for each trip. At the end of the week, count the number of trips that were made. Count the number of miles that were driven. Have a class discussion on alternatives to driving. Can any of these trips be made by transit, walking, biking, or carpooling?

### Variations

- Calculate the amount of pollution generated by the family per week.
- Have students keep their own diary of the trips that they make personally.
- Create a class chart and calculate the number of trips for the whole class.
- Discuss ways to reduce the number of trips. Example—Students could walk or bike to a friend's house, arrange carpools for soccer practice, or walk or bike to school more often.
- Set a goal for the class with each student making his or her personal goal.
- Do a second diary for another week.
- Compare the results to the first week. How many trips were reduced? How much pollution was saved as a result?
- Use this as a classroom contest where the class that saves the most trips wins a prize.

## GEOGRAPHY

*Mapping My Route to School*

In this activity, students will create a map of their route to school and indicate how they travel to school. It is best to coordinate this activity with the Safe Routes to School Task Force mapping process. As an in-class activity it is useful to have a local area map. This can be copied to a transparency for use with an overhead projector. Children can do this in class or take the activity




home. Enlarge a section of a local map, with the school at the center, including the neighborhoods around the school for at least a two-mile radius. Transfer this to an overhead, if any in-class instructions are required. Make copies of the handout with the map on one side.

Ask the class how most people usually get to school:

- Ask students to trace their route to school using a colored pen or pencil (a yellow felt pen works the best). They may have more than one route if they drive some days and walk or ride some days. Use different colors for each route and create a key.
- Ask the class to share some of the reasons they can't walk or ride to school and brainstorm possible solutions.
- Discuss some of the problems they experience along the way—barking dogs, speeding cars, no sidewalks. Tell them to mark any dangerous spots on their map. Encourage them to be creative, draw pictures, or otherwise decorate their map.

### Variations

- Pass out maps for children to take home. Ask them to walk the route with a parent or with a friend.
- Have them use the Safe Route Checklist (See Resources) to identify areas dangerous for walking and bicycling, such as busy streets with lots of cars, fast cars, dangerous intersections, missing sidewalks, and other scary places. Mark those areas in red.
- Use green to mark places that are safe, such as crossing guards, traffic lights, or quiet streets.
- Transfer this information to the larger class map. Have the students determine the safest routes to school.
- Invite the students to present their findings at a SR2S Task Force meeting. Involve them in the efforts to determine safety improvements.
- Ask the students to draw their own map.
- Place an enlargement of a neighborhood map on the wall or overhead projector. Tell the students to draw their own version of this map.
- Then ask them to locate their home and draw it in.
- Then ask them to locate the school and draw that in.
- Now have them show their routes to school.
- Tell them to draw in any landmarks: a friend's house, a public building, a favorite tree.
- Next ask them to draw in any dangerous or scary things that they encounter on their way to school.
- Display the maps around the school.

## Other ideas: Using computers

Horndean Community School in Hampshire, England, developed a geography/information technology class for 13-14 year olds. Students used computers to map the local area, with the help of software supplied by the county. They identified danger points on the way to school, looked at the alternatives and experimented with changes in road design. Through the work, they were able to put transportation issues into a local context, examine problems and come up with solutions.


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## Treasure Hunt *First created by Hawthorne Elementary School in British Columbia*

This exercise teaches children traffic safety signs and helps them to get to know their neighborhood better. Design a one-page list of items and objects that children can look for on their way to school. Include all street signs, such as stop and yield signs, bike route signs, etc. Also include fun items, such as an oak tree, a black dog, or a house with a front porch. The list also can ask such questions as, "where is the bus stop closest to your home?" These are the "treasures" that the children will hunt for. Steps:

- Distribute the list to the children and designate a completion date.
- Children will use the list as they walk to school. They must identify each item and where they found it on their list.
- Have a discussion on what they learned from the treasure hunt.
- When all entries are in, you can draw for a prize or you can reward the child who completes his or her list first.

## Walk and Bike Across America

*Initiated by the Way to Go program in British Columbia*

The purpose is to encourage children to walk and bike while taking them on a "journey" across the country. Steps:

- Place a map of the United States on the wall.
- Distribute a travel diary form for students to track the number of times they walk and bike to and from school. Make sure the form includes the number of miles between the student's home and school.
- Once a week, the students will multiply the number of times they walked to school and from school by the number of miles from their home to school.
- Add all of the students' miles together and translate it into miles using the map's scale.
- Take a string and cut it to the length of the miles traveled (use the scale on the map).
- Pin one end of the string on the point of the map where the school is located.
- Now stretch the string out and see where the students can go. Then decide as a class where they will go this week.
- Research that town and find out something interesting about the place. Using the Internet, locate a school in that town and communicate via e-mail with another class. Tell them what you are doing and survey them about how they come to school.
- Decide as a class where their next destination will be and estimate how long it will take to get there.
- At the end of a month, see how far the class has gone. Discuss how walking and biking can get you to where you want to go—even long distances.
- This exercise can be done over a few months. At the end of the exercise give a prize to the class that traveled the farthest.
- Place an odometer outside on school grounds to measure the total miles for the school.

### Variation

If you are also encouraging busing and carpooling, include those modes in this exercise. It is important to remember that children in vehicles can travel far more miles than those walking and




biking. To keep the exercise fair to all children, instead of actual miles for motor vehicle trips, add one bonus mile for every trip made by car-pool or bus and add it to the total class miles.

## ENGLISH

Have students write a poem or story involving a journey to school. Have them describe the things they see along the way, how it feels to be walking and biking. Have them discuss the safety hazards they may encounter along the way. How could their walk be more pleasant?

### Oral History

Assign children to speak with their grandparents (or parents) about their childhood experiences getting to school. Have them draw a picture and write a story about what they learned. Tell them to ask their grandparents how long it took them and what the conditions were like. Have the children write a paragraph comparing how they get to school now with how their grandparents got to school.

## HISTORY

### A History of Transportation

How have people traveled over the ages? This lesson gives children a glimpse of the many different choices that are available to them. Steps:

- Find a picture book that shows different transportation modes of the past. Check with your local historical society if this is not available in the library. Take advantage of Internet access through your local library.
- Take pictures from the book and convert them to overheads or slides or create a PowerPoint presentation using images from the Internet.
- Start with cave men and women walking, horses, chariots, wagons, and boats.
- Show how wagons got more elaborate turning to coaches and stagecoaches.
- Show streetcars and railroads.
- Show bicycles (invented in the mid-19th century).
- Finally, show buses and then cars, starting with an old Model-T and finishing with a newer car.
- You can also include modern boats and planes. Ask the students to come up with even more modes of travel—skateboards, scooters, motorcycles, etc.
- Have a discussion about the many different ways that people can get around. Which modes are better for their health and the health of the environment? Why don't people walk or take transit as much as they used to? How does that affect their community and the environment?

### Transportation and Land Use

In Marin County, California, instructors gave students a local history lesson about the county's original plan to construct a freeway around Mount Tamalpais and down the coast, and to widen a two-lane road into a major thoroughfare. The plan was defeated in the 1960s by conservationists, environmentalists, scientists and ordinary people—teachers, parents and even children who fought to preserve Mt. Tamalpais, the coastline, the Point Reyes National Seashore, and rural Marin County.

In any community you can find examples of people joining forces to limit development in favor of preserving an area that is valuable as open space. Discuss the successful efforts of many urban centers to reject highways and preserve light rail, such as San Francisco, New Orleans,

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and Portland. Find a local example of this kind of successful grassroots effort or look to such high profile national projects as the proposed plan to limit auto use in the Yosemite Valley in Yosemite National Park. Locate pictures of the area and enlarge them for a display.

### Discussion

Steps:

- Ask the children if they recognize the places in the photos (reveal photos one at a time or have them all on display, mount them or have the students hold them up).
- Ask the students what all of these places have in common (such as they all have hills, they are all local, they are good places to bike and hike, they are pretty, there's not a lot of pollution, they could be hurt by pollution and development).
- Ask the class whose job it is to protect these areas now and to continue to make sure that roads and developments aren't built in sensitive places (all answers are correct, such as the Park Rangers, the President, but the answer we want is "us").
- Ask how we can do such a big job (answers will include picking up litter and by recycling). The answer we are looking for is that by driving our cars less, walking and biking more, we can help keep these places safe and we won't need as many roads.

## SCIENCE

### Traffic pollution survey

Choose two locations. One should be on a busy street; the other as far from a busy street as possible. Students should find either a holly, bay or evergreen tree as long as it's the same species throughout the experiment and has a sturdy leaf structure. At each location they should:

- Stick some strips of adhesive tape onto two or three leaves at different sides of the plant and press them lightly down.
- Immediately remove the strips of tape taking care not to remove the surface of the leaf.
- Stick the tape onto their recording sheets, noting the locations of the tape.
- Back in class, discuss the darkness of pollution on the record sheets. Are roadside ones darker than the ones farthest from the road? Why?
- Display the results and discuss how pollution affects our lives.

### Global Warming (for fifth-graders and above)

This exercise gives students an opportunity to experience the phenomenon of global warming. Clear plastic bottles containing soil and water represent the earth and our atmosphere. The heat lamps replicate the heat of the sun. Students ventilate half of the bottles, allowing the heat to escape, the way heat radiated from Earth before an insulating layer of pollution formed in the atmosphere. The other half of the bottles are left unventilated, demonstrating the way heat is now trapped in our environment, as evidenced by the condensation of moisture in the bottle. Moisture will not condense in the ventilated bottle.

### Materials

For a class of 24 students, six stations are suggested. Each station (including a demonstration station for the teacher) needs:

Plastic container with about two cups of potting soil




Another plastic container with about two cups of water
One plastic bottle (two liter)
One small bucket or other device to stand the plastic bottle in (in order to catch excess dirt)
A tarp or newspapers on the floor
Heat lamp
One inch square piece of aluminum foil
Clipboard, paper and pencil
Every other station will require a utility-knife
One heavy-duty extension cord
One surge protected power strip
Wide masking tape

Have students work as teams of scientists. They should take turns with responsibilities. Steps:

- Stuff the dirt into the narrow mouth of the bottle, keeping the bottle over the bucket so that the spilled dirt is caught. Instruct the class to get as much dirt into the bottle as possible; about half a cup is good.
- Pour the water into the narrow mouth of the bottle, making a spout by squeezing the plastic container.
- Place the tin foil tightly over the mouth of the bottle.
- Have every other group cut holes near the top of the bottle (three crescent shaped holes about two inches long will work well). Only do this experiment with students who are old enough to use knives. If need be, have helpers make the cuts for them. Explain that every other group will be ventilating their bottles; we will be comparing them to the un-vented bottles.
- Have all teams place their bottles under the heat lamp and turn it on. Ask who knows what percentage of the earth's surface is covered in water (about 75 percent). Explain that the bottles represent the earth because we have a ratio of about three-quarters water to soil (have the students convert the percentage to a fraction). The heat lamp represents the sun and the ventilated bottles represent the earth before the greenhouse effect.
- Ask the class what they think happens to air pollution. Does it just float off into space? Explain that air pollution stays in the earth's atmosphere and has created an insulating blanket around the planet.
- Explain that the un-ventilated bottles represent the earth now that the pollution in the atmosphere is insulating the earth by trapping the heat from the sun.
- Tell the students to work as a team to predict what will happen to their bottle under the heat lamp. Record this on their clipboard.
- Working as a team, ask them to predict what will happen to the earth if heat cannot escape.
- While waiting for the experiment to happen, hold a discussion on the affects of pollution on the environment. Talk about global warming, air and water pollution, and how cars are a major contributing factor, and that $CO_2$ is a major heat-trapping gas. Ask them how their breathing is affected when walking where there is a lot of traffic.
- Returning to the experiment, ask the students to observe the difference between their bottle and their neighboring teams' bottle. Record the difference on their clipboards.

# Classroom Activities

## TRANSIT

Older children should be familiar with public transit facilities in their region. While Safe Routes to School primarily focuses on walking and biking, adding transit options increases the distance a student can travel, especially when combining bicycling with transit. These exercises give students an opportunity to experience public transportation.

### Transit Field Trip

For Middle and High School students (may be appropriate for fifth-graders)

This activity gives the students an opportunity to learn about public transit. Organize a field trip using public transit. Steps:

- Map out a route that will allow students to experience a variety of modes of transit—bus, ferry, train, and walking.
- Create the route with the class.
- Show the students how to use a transit guide.
- Use the Internet to learn how to use a transit guide on-line.
- Invite parent volunteers to accompany the children on the trip.
- Create interesting destinations along the way—museums, city hall, a great restaurant for lunch.
- Use the opportunity to discuss the benefits of using transit.
- Discuss the trip in class the next day. How did the students enjoy using transit?
- If they could design a superior transit system how would it work?

**Variation**

If your city has bicycle access to transit, create a trip combining bicycle and transit.

### Transit to Careers

A lesson for Middle and High School students

This activity gives students an opportunity to learn about public transit while researching career opportunities. Steps:

- Ask the students to pick a career that would interest them and then find someone in that career to interview.
- Have them contact that person and set up an appointment.
- Using a transit guide, have them map out their route to that appointment using transit.
- Advise them to map out various means of getting to their appointment, such as a ferry, bus, bicycle, and walking, and then choose the most efficient option.
- If the appointment is not directly accessible to transit, the student can combine bicycling and transit—put their bike on the bus, ferry or train, and then ride to the appointment.
- Make sure that the student has his or her parent's permission to use transit.
- If the parent is concerned about his or her child riding the bus alone, either have the parent accompany the student or have the students buddy up for the trip.
- Require the students to write a report or give an oral presentation that describes both the results of the interview and the ride to and from the interview.


# Resource Directory

*Compiled May 2002*


# Resource Directory

## GENERAL INFORMATION

### Safe Routes to School Clearinghouse
Peggy DaSilva
Center for Health Training
614 Grand Avenue, Suite 400
Oakland, CA 94610
Tel: 877-4SAFERT
www.4saferoutes.org

### The National SAFE KIDS Campaign
1301 Pennsylvania Ave., NW, Suite 1000
Washington, DC 20004-1707
Tel: 202-662-0900
www.safekids.org

### Pedestrian and Bicycle Information Center (PBIC)
The University of North Carolina Highway
Safety Research Center
730 Airport Road, Suite 300
Campus Box 3430
Chapel Hill, NC 27599-3430
Tel: 919-962-2202
www.pedbikeinfo.org
www.bicyclinginfo.org

### National Walk to School Day
www.walktoschool-usa.org

### International Walk to School Day
www.iwalktoschool.org

### California Walk to School Day Headquarters
CA Department of Health Services
E-mail: Walkday@dhs.ca.gov
Tel: 888-393-0353
www.cawalktoschool.com

## MODEL PROGRAMS

### Marin County Safe Routes to Schools
Marin County Bicycle Coalition
Wendi Kallins
PO Box 201
Forest Knolls, CA 94933
Tel: 415-488-4101
www.saferoutestoschools.org

### California's Safe Routes to School Initiative
Demonstration projects in nine communities, Sept. 2000 through May 2002. Case studies available.
Anne Seeley
UC San Francisco/CA Department of Health Services
PO Box 942732-Mail stop 675
Sacramento, CA 94234-7320
www.dhs.ca.gov/routes2school

### Go for Green
Unit 16, 5480 Canotek Road
Ottawa, ON K1J 9H6
Canada
Toll free: 888-822-2848
www.goforgreen.ca

### Sustrans
SR2S Program
35 King Street
Bristol, BS1 4DZ
United Kingdom
Tel: 011-44-117-929-0888
www.saferoutestoschools.org.uk

### Way to Go!
3538 West 24th Avenue
Vancouver, BC V6S IL4
Canada
Tel: 604-732-1511
www.waytogo@telus.net

### Florida Traffic and Bike Safety Education Program
University of Florida
Linda Crider, Director
Pete Davidson, Program Assistant
Department of Urban & Regional Planning
PO Box 115706
Gainesville, FL 32611
Tel: 352-392-8192
www.plaza.ufl.edu/lcrider

### Arlington, Massachusetts, Safe Routes to School Pilot Program
Dorthea Haas
Project Coordinator, WalkBoston
156 Milk Street
Boston, MA 02109
Tel: 617-451-1570
www.walkboston.org/

### Arlington County Safe Routes to School
Arlington County Public Affairs Division
2100 Clarendon Boulevard, Suite 310
Arlington, VA 22201
Tel: 703-228-3969
www.civfe.org/schosafe.htm

### The Bronx Safe Routes to School Program
Earlene Wilkerson, Outreach Coordinator
Transportation Alternatives


# Resource Directory

115 W. 30th Street, Suite 1207
New York, NY 10001
Tel: 212-629-8080
www.saferoutestoschool.org

## WALKING SCHOOL BUS

KidsWalk to School
Pedestrians Educating Drivers (PEDS)
Sally Flocks
1447 Peachtree Street, Suite 801
Atlanta, GA 30309
Tel: 404-873-5667
www.peds.org/KidsWalk/Kidswalk_index.htm

City of Chicago Walking School Bus Program
City of Chicago Department of Transportation
30 North LaSalle Street, #400
Chicago, IL 60602
Tel: 312-742-2755

The Walking School Bus
A Guide for Parents and Teachers
Prepared by Pinnacle Research for Christchurch
New Zealand
www.pinnacleresearch.co.nz/wsb.htm

KidsWalk to School
Jessica Shisler, MPH
Coordinator, Walk to School Programs
Active Community Environments Team
Division of Nutrition and Physical Activity
Centers for Disease Control and Prevention (CDC)
4770 Buford Highway, NE (MS-K46)
Atlanta, GA 30341
Tel: 770-488-5085
Fax: 770-488-5473
www.cdc.gov/nccdphp/dnpa/kidswalk/index.htm

## PUBLIC HEALTH ORGANIZATIONS

American Heart Association
7272 Greenville Avenue
Dallas, TX 75231
Tel: 800-AHA-USA1
www.americanheart.org

Centers for Disease Control and Prevention (CDC)
National Center for Injury Prevention and Control
4770 Buford Highway, NE
Atlanta, GA 30341-3717
www.cdc.gov/ncipc

National Center for Chronic Disease Prevention and Health Promotion Physical Activity–Kids Walk to School programs
www.cdc.gov/nccdphp/dnpa/physicalactivity/htm.

The American Lung Association
1740 Broadway
New York, NY 10019
212-3115-8700
www.lungusa.org

## TRAFFIC CALMING

Street Design Guidelines for Healthy Neighborhoods
by Dan Burden
c/o Center for Livable Communities*
1414 K Street, Suite 600
Sacramento, CA 95814-3929
Tel: 800-290-8202
www.lgc.org

Reclaiming Our Cities and Towns:
Better Living with Less Traffic (1993)
by David Engwicht
New Society Publishers
PO Box 12816
San Luis Obispo, CA 93406
www.lesstraffic.com

Making Streets that Work:
Neighborhood Planning Tool
by City of Seattle's Design Commission, Engineering Department, Office of Management and Planning
c/o Center for Livable Communities (see above*)

Institute of Transportation Engineers
525 School Street, SW, Suite 410
Washington, DC 20024
Tel: 202-554-8050
www.ite.org/traffic/index.htm

The Oregon Toolbox for Traffic Calming
www.trans.ci.portland.or.us/Traffic_Management/Trafficcalming/

Fehr and Peers Transportation Engineers
www.trafficcalming.org/

Parisi Associates
58 Alta Vista Ave.
Mill Valley, CA 94941
415-388-8978
david@parisi-associates.com

# Resource Directory

Alta Planning + Design
707 C Street
San Rafael, CA 94901
415 482 8660
http://www.altaplanning.com

Federal Highway Administration
www.fhwa.dot.gov/environment/tcalm/index.htm

## TEACHING CHILDREN

Going Places, Making Choices
www.4hapmc.com
Sarah Cahill, Environmental Program Manager
National 4-H Council
Tel: 301-961-2904
Fax: 301-961-2894
E-mail: scahill@fourcouncil.edu

Portland Kids on the Move
Portland Department of Transportation
Shannon Parker
Tel: (503) 823-5391
www.trans.ci.portland.or.us/pdot

Smart Moves – Transportation Curriculum
Climate Solutions
610 East 4th Avenue
Olympia, WA 98501
Tel: (360) 352-1763
Fax: (360) 943-4977
E-mail: info@climatesolutions.org
Copies also can be downloaded from
www.climatesolutions.org/k-12/smartmoves.html

American Automobile Association (AAA)
Foundation for Traffic Safety
1440 New York Avenue, NW, Suite 201
Washington, DC 20005
Tel: 202-638-5944
www.aaafts.org
www.ottoclub.org

League of American Bicyclists
Michael Klasmeier, Program Director
1612 K Street, NW, Suite 401
Washington, DC 20006-2802
E-mail: mail to:mike@bikeleague.org
Tel: 202 822-1333
Fax: 202 822-1334
www.bikeleague.org

Bicycle and Pedestrian Safety
Bruce Mackey, Nevada State Education Officer
555 Wright Way
Carson City, NV 89711
Tel: (775) 687-4229
http://members.nbci.com/_XMCM/SavvyCyclist/index.html

Minnesota Bicycle & Pedestrian Alliance
210 E. 10th Street
St. Paul, MN 55101
Tel: 651-290-0405
www.bikeped.org

Trips for Kids
Marilyn Price
E-mail: tfkbike@pacbell.net
Tel: 415-458-2986

Northern Lights Outreach Program
Todd Blackmoore
E-mail: todd@northernlightsracing.com
Tel: 916-829-1307
www.northernlightsracing.com

Home to School Safe Travel for Children Train-the-Trainer
Colorado Department of Transportation
Gay Page
Tel: 303-757-9982

Teaching Safe Bicycling Program (TSB)
Wisconsin Department of Transportation
Developed by We Bike
JoAnne Pruitt Thunder
Tel: 608-267-3154 (Wisconsin DOT)
Peter Flucke
Tel: 920-497-3196,
E-mail: webike@aol.com

Charles Hammond,
Youth Bicycle Education Network
Tel: 317-253-3632
E-mail: chamond@iupui.edu
www.yben.org

Park Tool School
A mechanics-based class offered through bike shops. The materials are designed to be taught by someone with a rudimentary understanding of bicycles.
www.parktool.com/school.htm


# Resource Directory

## VIDEOS

Stop, Look and Listen with Willy Whistle/Walking with Your Eyes
"Willy Whistle" is a lively, animated character featured in this video designed to teach pedestrian skills to children. "Stop and Look with Willy Whistle," the first segment of the video, is designed for children in kindergarten through third grade. The second segment, "Walking with Your Eyes," teaches more complex pedestrian behavior for children in grades four through seven, and is supported by a teacher's guide (6P0062).
National Highway Traffic Safety Administration (NHTSA)
Tel: 202-366-0910
www.nhtsa.gov

Ride Smart: It's Time to Start
National Highway Traffic Safety Administration
DOT HS 809 397 (January 2002)
Tel: 202-366-0910
www.nhtsa.gov

A Kids Eye View
Basics of Bicycling
Effective Cycling
League of American Bicyclists
Tel: 202-822-1333
www.bikeleague.org

California State Automobile Association
150 Van Ness Avenue
San Francisco, CA 94102
Tel: 415-565-2305
www.aaafts.org
www.ottoclub.org

Jello in a Jar (excellent helmet safety video)
www.safekids.org/tier3_cd.cfm?content_item_id=104&folder_id=184
Bill Nye the Science Guy
http://asp.disney.go.com/Educational/TeacherStore/db/detailed_view.asp?product_id=68A37VL00

## BOOKS

Henry Hikes to Fitchburg
www.henryhikes.com

## WEB SITES FOR CHILDREN

Young TransNet
www.youngtransnet.org.uk

Educating Teenage Cyclists
www.bicyclinginfo.org/ee/ed_teenage.htm
www.imaginelondon.org.uk

## WEB SITES FOR TEACHERS

Sustrans
www.sustrans.org.uk

National Safe Kids Coalition (USA)
www.safekids.org
www.bicyclinginfo.org/rd/ed_aware.htm

Transportation for Livable Communities
www.tlcnetwork.org

Car Free Day
www.ecoplan.org/carfreeday/EarthCFD/ec_index.htm
www.railtrails.org

Walking School Bus Guide For Parents And Teachers
A guide for parents and teachers with step-by-step instructions on how to setup walking school buses in communities.
http://www.pinnacleresearch.co.nz/wsb.htm
Bernadine Walsh, Transport Executive
EECA's Auckland office
Tel: 09 916 4640
Bernadine.Walsh@eeca.govt.nz

## CD-ROMS

CycleSmart (Animated cycle safety training for elementary students.)
www.ingenuityworks.com
E-mail: info@ingenuityworks.com (please include your name and phone number.)
Tel: 800-665-0667 (toll free from United States and Canada)
604-412-1555
Fax: 604-431-7996

Safer Journey
Interactive CD-ROM for improving "Pedestrian Safety"; useful for elementary and middle school. It is available on CD-ROM and also can be viewed online at http://safety.fhwa.dot.gov/programs/ped_bike.htm; click on "Pedestrian Info" and then click on "Safer Journey."
Federal Highway Administration
400 7th Street, SW
Washington, DC 20590
Tel: 202-366-8044
Fax: 202-366-3222


# Resource Directory

## BICYCLE, PEDESTRIAN, & TRANSIT ADVOCACY

America WALKS
PO Box 29103
Portland, OR 97210
Tel: 503-222-1077
www.americawalks.org

Bikes Belong
1368 Beacon Street
Brookline, MA 02446-2800
Tel: 617-734-2810
www.BikesBelong.org

League of American Bicyclists
1612 K Street, NW, Suite 401
Washington, DC 20006
Tel: 202-822-1333
www.bikeleague.org

The Center for Livable Communities
Local Government Commission
1414 K Street, Suite 600
Sacramento, CA 95814
Tel: 916-448-1198 or 800-290-8202
www.lgc.org

Rails-to-Trails Conservancy
1100 17th Street, NW, 10th Floor
Washington, DC 20036
Tel: 202-331-9696
www.railtrails.org
California office: Laura Cohen
Tel: 415-397-2220

Surface Transportation Policy Project
1100 17th Street, NW, 10th Floor
Washington, DC 20036
Tel: 202-466-2636
California Office
James Corless
Tel: (415) 956-7795
www.transact.org

Walkable Communities, Inc.
Dan Burden
320 South Main Street
High Springs, FL 32643
Tel: 904-454-3304
www.walkable.org

California Bicycle Coalition
Chris Morfas, Executive Director
926 J Street, Suite 509
Sacramento, CA 95814
Tel: 916.446.7558
www.calbike.org

Thunderhead Alliance
Adam Spey, Executive Director
Tel: 202-728-9100
www.thunderheadalliance.org

Marin County Bicycle Coalition
Debbie Hubsmith, Executive Director
PO Box 35
San Anselmo, CA 94979
Tel: 415-456-3469
www.marinbike.org

Marin Share the Road
Malcolm Foster, Director
33 Matilda Avenue
Mill Valley, CA 94941-2161
Tel: 415-388-3818
www.marinsharetheroad.org

## GOVERNMENT AGENCIES

National Highway Traffic Safety Administration
400 Seventh Street, SW
Washington, DC 20590
Tel: 202-366-0910
www.nhtsa.dot.gov

Safe Routes to School Program
(California Department of Transportation)
PO Box 942873
Sacramento, CA 94273-0001
Tel: 916-654-5266
www.dot.ca.gov/hq/LocalPrograms/saferoute.htm

Federal Highway Administration
400 Seventh St., SW
Washington D.C. 20590
www.fhwa.dot.gov

Center for Disease Control and Prevention
Atlanta, GA
www.cdc.gov


# Forms

# Healthy Hearts TALKING POINTS

## GENERAL HEALTH

- It is well documented that developing healthy eating and exercise habits at an early age lead to a lifelong personal commitment to a healthy lifestyle
- Public health officials and scientists agree that everyone should accumulate 30 minutes of physical activity every day to reduce the risk of chronic disease and early death. A brisk walk tops their list of recommendations. Unfortunately the Center of Disease Control estimates that as few as 20% of adults meet that standard.
- On top of the daily 30 minutes of moderate physical activity children need another 20 minutes of vigorous activity several days per week. Yet 78% of young boys and girls fall short of this recommended dose of exercise.

## EXERCISE AND YOUTH

- Nearly half of young people aged 12-21 years do not engage in vigorous physical activity on a regular basis. Participation in physical activity declines strikingly as children get older
- Health professionals agree that exercise patterns need to be established in childhood so as to reduce the chances of coronary heart disease, reduce blood pressure, counter obesity, lower lipids, retard osteoporosis, improve psychological well-being and possibly reduce the risk of cancer.
- The process of cholesterol buildup of the arteries begins in childhood and continues through their teens.

## HEART DISEASE

- Like any muscle, the heart needs a constant supply of oxygen and nutrients that are carried to it by the blood in the coronary arteries. Good nutrition combined with exercise can give your children the insurance they need to have a strong and healthy heart. Thirty minutes of exercise a day is recommended as enough to protect against future heart disease.
- Seven million Americans suffer from Coronary Heart Disease (CHD), caused by narrowing the coronary arteries that feed the heart. CHD is the number one killer of both men and women in the United States. Each year more than 500,000 Americans die of heart attacks caused by CHD. Many of these deaths could be prevented because CHD is related to certain aspects of the lifestyle, including high blood pressure, high blood cholesterol, smoking, obesity, and physical inactivity.

## PHYSICAL FITNESS

- Walking and biking are both excellent forms of exercise, since they stimulate and maintain muscular strength and good joint function; involve a large percentage of the body; can be maintained throughout life; and do not provoke hip, knee or other weight bearing injuries.
- California law requires school districts to administer physical fitness testing to all 5th, 7th and 9th grade students annually. In 1999, 80% of the students tested failed to meet the minimum standards to be considered physically fit.
- Physical activity is often limited to specific sports or games. In order for children to learn to love physical activity, it is necessary to provide a variety of options so that children can choose the activity they most want to learn and enjoy.
- Physical activity helps kids to concentrate, makes them stronger and more energetic, prevents weight gain, keeps bodies supple, keeps hair and skin looking good, and contributes to higher self-esteem, and lower anxiety and stress
- 70% of children watch at least one hour of TV each day. 35% watch five hours or more.

## OBESITY

- Nationally, childhood obesity has reached epidemic proportions with 4.7 million youths, ages 6-17 now overweight or obese. 22% of American children are now considered obese and that number is doubling every 10 years.
- Children who are overweight often feel stigmatized, have lower self-esteem, and are less likely to engage in physical activity in order to avoid ridicule from classmates.

*Sources:*

*California Cardiovascular Disease Prevention Coalition*
*California Department of Health Services*
*Children, Transport and the Quality of Life, Mayer Hillman 1993*
*National Heart, Lung, and Blood Institute (NHLBI)*
*Surgeon General Report on Physical Activity and Health, 1996*

*Compiled by Safe Routes to Schools, a project of the Marin County Bicycle Coalition*
*P.O. Box 201, Forest Knolls, CA 94933 415-488-4101 www.saferoutestoschools.org*

# ENVIRONMENTAL FACT SHEET

## ALTERNATIVES TO DRIVING ALONE

- People in mixed-use compact communities drive 30-50% less than sprawling communicates. They are easier to serve by public transit and it is easy to walk or bike to run errands, and to get to school or work. *(National Resources Defense Council)*
- If just one out of every 10 commuters who now drive to work switched to walking, we'd save 2 billion gallons of gas a year and reduce carbon dioxide emissions by 25.4 million tons. *(Green Commutes, Makower)*
- Switching for a month from a five mile car commute to a bike commute keeps close to a pound of hydrocarbons, six pounds of carbon monoxide and half a pond of nitrogen oxide from entering the air. *(Divorce your Car, Katie Alvord, 2000)*
- Every transit commuter who bikes to the station saves an average of 150 gallons of gas a year. Every car commuter who switches to biking and transit can save 400 gallons of gas a year. *(Divorce your Car)*
- Eight bicycles can be parked in the space required for just one car. *(Divorce your Car)*
- Going by bus instead of car cuts nitrogen oxide pollution by 25%, carbon monoxide by 80% and hydrocarbons by 90% per passenger mile. *(Divorce your Car)*
- One full 40 foot bus will take 58 cars off the road. *(Divorce your Car)*

## AUTOMOBILE USE

- The United States moves into the 21st century with less than 30% of its original oil supply *(Global 200 Revisited Gerald O. Barney)*
- Los Angeles residents drive 142 millions miles—the distance from Earth to Mars—every single day. *(Going Place, Making Choices, 4H)*
- Americans drive more than 2 trillion vehicle miles per year. *(4H)*
- Short motor trips contribute significant amounts of air pollution because they typically occur while an engine's pollution control system is cold and ineffective. Shifting 1% of automobile trips to walking or biking decreases emissions by 2-4%. *(Way to Go, British Columbia)*
- Roads and parking in urban and suburban communities cover between 30-50% of land base. If just 5% of a watershed is covered with impervious surfaces, such as roads and parking facilities, water quality of streams and waterways is seriously degraded due to oily runoff from streets. (*Way to Go)*
- The number of cars grew three times faster than the human population world wide in the 1990's. (BioScience, Oct 1998)
- Americans lose an estimated 2000-2800 acres of rural land every day to highways, housing developments, shopping malls, airports and other non-farm uses. That's 730,000 to 1,020,000 acres a year. If current trends continue, in the next 100 years approximately 1/3 of America's farmland will be lost to suburbs, malls and other uses. (Natural Resource Conservation Management for a Sustainable Future, 1998)

## GLOBAL WARMING

- As carbon dioxide builds in the atmosphere, it traps heat so that the earth warms as if it were in a giant greenhouse. These greenhouse gases allow the sun's energy to penetrate the atmosphere to the earth's surface, but do not allow as much of it to escape as heat. These are altering air temperature and movement, causing changes in weather and climate. This is enough to raise ocean levels causing flooding for some coastal areas. *(R. Monastersky, Science News, Jan 2, 1999)*
- Global average surface temperatures increased by about 1.7 degrees Celsius from 1900 to 1998. *(Science News)*
- Seven of the globe's ten warmest years have been recorded since 1990. *(Science News)*
- The incidence of extreme weather events has gone up 28% since 1975 and it is now confirmed that the Arctic ice caps are melting, threatening coastal regions with flooding and actually drowning some small islets. *(U.S. E.P.A.)*
- Atmospheric concentrations of $CO_2$, the main greenhouse gas implicated in global warming, are higher than they've been in 160,000 years, and they're rising. *(Intergovernment Panel on Climate Change, 1995)*
- Driving is the biggest contributor to increased greenhouse gases. *(New State of the Earth Atlas, 1995.)*

## POLLUTION

- Motor vehicle use is now generally recognized as the source of more air pollution than any other single human activity. *(New State of the Earth Atlas, 1995.)*
- In a year, a typical North American car will add close to five tons of $CO_2$ into the atmosphere. Cars account for an estimated 15-25 percent of U.S. $CO_2$ emissions. *(Internal Council for Local Environment, 1995)*
- While cars today are cleaner than they were in 1970, the increases in the number of cars and miles driven have offset much of that gain. *(Divorce your Car)*
- Oxides of nitrogen, volatile organic compounds, carbon monoxide and particulate matters are just a few of the noxious pollutants that come out of our cars and into our air and water. *(Divorce your Car)*
- Oil spills damage marine life and habitats. The number of small spills under 100,000 gallons has grown worldwide and as of the mid 1990s totaled around 10 million gallons yearly. Large spills —over 10 million gallons—occur at a rate of 1-3 a year worldwide. *(Oil Spills, Joanna Burger, 1997)*
- Disposal of used motor oil sends more oil into the water each year than even the largest tanker spill. *(U.S. EPA)*
- About 800 million scrap tires are stockpiled around the U.S. Every year we throw out over 260 million tires. Tires trap gases inside and tend to float or work their way to the tops of dumps. *(U.S. EPA)*

*Prepared by Safe Routes to Schools, a Project of the Marin County Bicycle Coalition*

# Safety TALKING POINTS

## GUIDELINES FOR GOOD PEDESTRIAN BEHAVIOR

### Guidelines for Children:

- Look both ways before crossing (left, right, left again)
- Walk, don't run across the street
- Cross only at safe corners, even if you walk farther
- Choose the route with fewest streets to cross
- When possible, cross streets at the crosswalk and where there are traffic signs and signals
- Obey traffic signs and signals
- Face traffic when walking on roads without sidewalks
- Watch for turning cars
- Keep from walking between parked cars
- Refuse to ride with strangers

*(U.S. Department of Transportation)*

### Guidelines for Parents:

- Group children along school routes for better visibility and driver awareness. When larger numbers cross together it makes motorists more aware of kids crossing, increases driver compliance with stopping for crosswalks, and helps justify the installation of more extensive crossing protection devices. Look for adequate shoulder or sidewalk areas to provide refuge.
- Children are not small adults. They often act before thinking and may not do what parents or drivers expect. They assume that if they see the driver, the driver sees them. They have one-third narrower side vision, can't judge speed and are less able to determine the direction of sounds. They are shorter than adults and can't see over cars, bushes and other objects.

*(NHTSA)*

### Helmets Can Save Lives:

- Bike helmet use can reduce the risk of head injury by 85 percent when worn correctly.
- Each year more than 700 people are killed in bike crashes in the United States, and up to 50 percent of those deaths could have been prevented if bike riders had worn helmets.
- Helmets must be snug and level and cover the upper part of the forehead; you should have room for no more than two fingers between the straps and your chin. (NHTSA, AAA)

## SUCCESS STORIES

The City of Seattle reported a 77 to 91 percent reduction in traffic collisions in some communities after it installed 700 traffic circles, while Portland, Oregon, experienced a 58 percent reduction in the number of reported crashes. (ITS)

The City of Santa Monica is redesigning at least a dozen major streets, installing bike lanes, and widening sidewalks and medians. The city is also embedding flashing yellow lights in the pavement to illuminate some cross-walks. Police have issued more than 700 citations to drivers failing to yield to pedestrians in nine months. (City of Santa Monica, CA)

In Odense, Denmark, the city created a network of traffic-free foot and bike paths, established slow speed areas, narrowed roads and installed traffic islands. Crashes declined by 85 percent. Twenty percent of all journeys in Denmark are now made by bike compared with 3 percent in Great Britain and 1 percent in the United States. (Dept. of Environment and Transport Regions, London, England)

In Great Britain, speed zones were reduced to 20 mph, resulting in 70 percent fewer child pedestrian causalities and 28 percent fewer bicycling causalities. (Dept. of Environment and Transport Regions, London, England)

## SOME STATISTICS

- A pedestrian struck by a car traveling at 40 mph has a 15 percent chance of survival. At 30 mph there is a 55 percent chance of survival. At 20 mph there is an 85 percent chance of survival. (U.S. Department of Transportation)
- Seventy-three percent of children between 5 and 9 years old killed in accidents were riding in cars. (NHTSA)
- Twenty to twenty-five percent of morning traffic is parents driving their children to school. (Department of Environment and Transport Regions, London, England; Marin CMA)
- Forty-six percent of traffic crashes involving kids as pedestrians occur when a child darts out into the street. (NHTSA)
- Fifty percent of children who are hit by cars near schools are hit by cars driven by parents of other students. (Washington State Department of Transportation)
- Less than 1 percent of children aged 7-15 now ride bicycles to school, a decrease of more than 60 percent since the 1970s. (Surface Transportation Policy Project, *Caught in the Crosswalk*)
- Sixty-one percent of adults would walk more if they had safe, secure paths. (Pedestrian Federation of America)
- It takes about 10 minutes to walk a quarter of a mile or bike an entire mile. (Pedestrian Federation of America)
- Traffic Calming reduces collision frequency by 40 percent, vehicle insurance claims by 38 percent, and traffic fatalities by 50 percent. (Insurance Company of British Columbia)

*Safe Routes to Schools, PO Box 201, Forest Knolls, CA 94933; Tel: 415-488-4101. E-mail: wkallins@igc.org; www.saferoutestoschools.org.*

# Student Survey:

## HOW WE TRAVELED TO SCHOOL TODAY

Grade_____ #of Students_____ Teacher_____

| | WALKED | BIKED | BUS | CARPOOL | CAR | OTHER |
|---|---|---|---|---|---|---|
| Date_____ | | | | | | |
| Date_____ | | | | | | |
| Date_____ | | | | | | |
| Date_____ | | | | | | |
| Date_____ | | | | | | |

# Parent Survey:

1. What is your child's sex and grade level?

Boy _____ Girl _____ Grade_____

2. What is the approximate distance from your home to the school?

o ¼ mile or less o ¼ to ½ mile o ½ mile to 1 mile

o between 1–2 miles o over 2 miles

3. What neighborhood/community do you live in?

_____

4. How does your child usually travel to and from school? (check the appropriate boxes below)

TO SCHOOL IN THE MORNING

| | Every Day | 2-3 times a week | Once a week | Occasionally | |
|---|---|---|---|---|---|
| Walk | | | | | |
| Bike | | | | | |
| Driven | | | | | |
| Carpool | | | | | |
| Bus | | | | | |

FROM SCHOOL IN THE AFTERNOON

| | Every Day | 2-3 times a week | Once a week | Occasionally | |
|---|---|---|---|---|---|
| Walk | | | | | |
| Bike | | | | | |
| Driven | | | | | |
| Carpool | | | | | |
| Bus | | | | | |

5. Do you feel that the school provides a safe place to store bikes? yes_____ no_____

6. Do you have concerns about traffic safety along the routes to school? yes_____ no_____

7. Please elaborate (include specific streets or intersections that are problematic)

_____

_____

_____

_____

_____

8. If you drive your child, why do you make that choice?

- ☐ Safety
- ☐ Drop off on way to work
- ☐ Sidewalks (lack of or incomplete)
- ☐ Child is too young
- ☐ Child would not obey safety rules
- ☐ Carrying projects or musical instruments
- ☐ Safe place to cross the street
- ☐ Lack of safe place to store bikes
- ☐ Paths are incomplete or not wide enough
- ☐ Other
- ☐ Convenience
- ☐ Too far to walk
- ☐ High speed vehicles
- ☐ Bad weather
- ☐ Backpacks too heavy
- ☐ Tardiness
- ☐ Scary people
- ☐ No biking or walking route maps
- ☐ Unfriendly dogs

9. Would you allow your child to walk or bike if:

- ☐ Accompanied by other children
- ☐ Accompanied by other parents
- ☐ Provide routes maps
- ☐ Crossing guards more effective
- ☐ Safety training for students
- ☐ Improved sidewalks and bike paths
- ☐ Cars slowed down
- ☐ Secure bike storage was available
- ☐ Paths were separated from traffic
- ☐ Other

10. Would you let your child carpool if:

- ☐ You were familiar with the driver
- ☐ Someone organized it
- ☐ Other

11. Would you be interested in volunteering to help set up or maintain a walking or biking program? yes_____ no_____

If so please give your name and phone number

_____

12. Comments:

_____

_____

_____

Please return this survey to the school office.
Or mail it to:

# Safe routes to school: Traffic Count Form

Road Name or Location _____

Date _____ Weather _____

Start Time _____ End Time _____

Name(s) of Counters & Recorders _____

_____

| COUNT THE NUMBER OF CARS | HOW MANY CHILDREN IN EACH CAR? | COUNT THE BICYCLISTS (WITH HELMETS) | COUNT THE BICYCLISTS (WITHOUT HELMETS) | COUNT THE NUMBER OF CHILDREN WALKING |
|---|---|---|---|---|
| | | | | |

## INSTRUCTIONS FOR TRAFFIC COUNT FORM

1. Have kids pair up in teams of two to count walkers and bicyclists. Car counters need teams of three.
2. Each team is assigned a location where children are arriving at school.
3. One person is the counter and the other is the recorder. When counting cars, one person counts cars and another counts the number of children in each car.
4. The counters call out a car (biker or walker) when it (they) arrives. The recorder makes a mark for the number of cars and writes out the number for the number of children per car. (Make sure they keep the tic marks in groups of five). The bike and walking counters should make marks for each child.
5. At the end they total the number of marks. Then they count how many cars that had more than one child in the car, which counts the number of carpools. Note: If the class has learned how to average, then have them compute the number of children per carpool.
6. Combine all the forms to find out how many children walked to school, biked to school, came in a carpool, or came alone in a car.
7. Return the forms to the Safe Routes to School box in the office or contact _____ at _____.

*Thanks for helping out the Safe Routes to School program*

*Safe Routes to School is a project of:*
*NAME OF SCHOOL, ADDRESS, PHONE, E-MAIL*

# SAMPLE:

letter home to parents

Dear Parent,

YOUR SCHOOL and YOUR TOWN are working to ensure the safety of children traveling to and from school. To that end we will be starting a Safe Routes to Schools program this fall. This program will determine the safest routes to walk and bike to school, suggest safety improvements to those routes, develop fun ways to encourage more children to use those routes, and recruit parents and neighbors to accompany children to school. We will be teaching children traffic safety and look at ways to slow the traffic down around the schools

The programs goals are to:

- Reduce traffic congestion in and around the school.
- Improve safety through increased enforcement and street improvements.
- Increase the number of children who walk and bike to school.

Our first event will be _____ which has been declared International Walk to School Day. Parents and children who walk or bike to school together that day will arrive to a host of festivities and goodies.

If you are concerned about traffic and safety in and around the school and would like more information about Safe Routes to Schools please come to our first planning meeting on _____.

Here's what you can do to help:

Fill out the enclosed questionnaire and return it by _____.

Mark your calendar and participate in International Walk to School Day.

Come to our first informational meeting on _____

If you are tired of traffic dangers around the school, here is your chance to make a difference. Thank you for any participation you can give to this program. We will be keeping you informed about our progress.

Yours truly,

# Safe Routes to Schools:
## FOR IMMEDIATE RELEASE

Contact:

Your Name, Safe Routes to Schools Team Leader
Your Phone Number
NAME OF YOUR SCHOOL
HOLDS A WALK AND BIKE TO SCHOOL DAY EVENT
DATE OF EVENT
TIME: ____ LOCATION: _____

On Date, Name of School will be holding its monthly Walk and Bike to School Day. Name of School has been holding monthly events which have been growing in size ever since the school participated in International Walk to School Day last October.

People are invited to walk and bike to school with their children on Date. Neighbors and community members are invited to walk and bike as well.

IF YOU ARE HOSTING STAGING AREAS OR WALKING SCHOOL BUSES, PUBLICIZE THEM HERE.

Walk and Bike to School Day is being sponsored by Name of Town's Safe Routes to Schools program. Safe Routes to Schools is the popular new program that is getting more children to walk and bicycle to school. It is an international movement that aims to make everyday walk and bike to school day. More children walking and biking means better health benefits for them and the environment, and reduced traffic congestion for everyone.

Safe Routes to Schools works by organizing "Teams" at each school which organize events and contests, and assist with promotion and facilitation of walking and biking to school. Local "Teams" within a town work together with law enforcement and town officials to map the routes to schools and make the routes physically safer. The program also includes classroom education for bicycle and pedestrian safety skills. You don't have to be a parent to join in the fun!

For more information contact Your Name, Your Number.

# SAMPLE:

## SUPPORT LETTER FROM PRINCIPAL FOR THE SAFE ROUTES TO SCHOOLS PROGRAM

Dear,

MY SCHOOL wishes to become part of the Safe Routes to Schools Program. I understand that The Safe Routes to Schools program would take place during the 2002-2003 school year and to be a Safe Routes to Schools Program requires the formation of a Safe Routes Team at my school which can include parents, neighbors, and interested teachers, which will organize contests and events.

I also understand that Safe Routes to Schools will be providing in-class safety education at my school and will be training volunteers, public safety officers and interested staff in assisting in these presentations. I have read the curriculum outline and will assist the program in finding class time during Physical Education. If PE is not available at my school we will find other class time for these presentations.

I also understand that my school will be part of a community-wide Task Force of parents, neighborhood members, and participation from staff from the school and town which will identify and evaluate safer routes to schools for our children and present this to City staff.

In addition to helping to relieve morning traffic (which is at an all-time high), I am excited about the potential for this Safe Routes to Schools Program because walking and bicycling increases the physical and mental health of children.

I am is pleased to support the Safe Routes to Schools program.

## Resolution in Support of
## the Safe Routes to Schools Program
Sample

Whereas: YOUR School wishes to become part of the Safe Routes to Schools Program; and

Whereas: The Safe Routes to Schools program would take place during the 2002/2003 school year; and

Whereas: To be a Safe Routes to Schools Program requires the formation of Teams at each school which can include parents, neighbors, and interested teachers, which will organize contests and events, and

Whereas: Safe Routes to Schools' will assist in forming a community-wide Task Force which will include parents, neighborhood members, law enforcement, and participation from staff from the school and town which will identify and evaluate safer routes to schools for our children and present this to City staff; and

Whereas: Safe Routes to Schools will be providing in-class safety education in each qualifying school, and

Whereas: In addition to helping to relieve morning traffic (which is at an all-time high), Your DISTRICT /TOWN is excited about the potential for this Safe Routes to Schools Program because walking and bicycling increases the physical health of children; and

Whereas: There are several existing bicycle and pedestrian paths in our community, as well as sidewalks and bicycle lanes, which would be well used as school routes through more community education, cooperation, and promotion.

Therefore: YOUR DISTRICT/CITY is pleased to support the Safe Routes to Schools program.

# PROCLAMATION

INTERNATIONAL WALK TO SCHOOL DAY
OCTOBER 2, 2002

Whereas: International Walk to School Day will be held on October 2, 2002; and

Whereas: This event, taking place around the world, will focus on the benefits of walking or biking rather than driving to school, creating cleaner, safer and environmentally healthier schools for children; and

Whereas: This day affords parents the opportunity to spend more time with their children, reduces car use and traffic hazards, promotes physical activity and contributes to a safer community.

Therefore: We, the YOUR School District, do hereby proclaim October 2, 2002 as "International Walk to School Day" and encourage everyone to participate in this very worthwhile event.

# WALK TO SCHOOL DAY CHECK LIST

Organizing a Walk to School Day can be fun and rewarding for everyone. Each school finds its own method of creating a safe environment for kids to walk and bike to school. Below are some suggestions that can make your day go smoothly. Find out what works for you. Remember to give each of your volunteers something to do. If everyone takes a little bit, then no one is burdened with too much.

## Basic needs

- ❑ Inform the school administration and the PTA of the event
- ❑ Arrange for crossing guards and/or adults monitors
- ❑ Notify police
- ❑ Have a greeter(s), a table and garbage cans
- ❑ Have someone buy or get donated food if you're having treats (Some grocery stores can reserve items for you if you get in touch well in advance)

## Walking School Buses and Bike Trains

- ❑ In Neighborhoods—publish a "bus" route with "stops".
  - ❍ Assign at least two adults for each "bus" with a dozen children.
- ❑ For School-wide Parades: establish Staging Areas where people can "catch the bus"
  - ❍ Assign at least four adults to each staging area. Two for walking Two for biking
- ❑ Invite other parents to walk or bike along.

## Publicity

- ❑ Send home flyers
- ❑ Put up posters
- ❑ Put up signs on roads
- ❑ Send out e-mail
- ❑ Phone parents to remind them
- ❑ Put item in school newsletter
- ❑ Have principal make an ongoing announcements 1-2 days before event
- ❑ Notify teachers and ask them to remind students
- ❑ Put out press release
- ❑ Have students make signs and flags to carry

## Other Volunteer Options

- ❑ Senior groups
- ❑ Biking clubs
- ❑ Hiking clubs
- ❑ Other community groups

*Safe Routes to Schools P.O. Box 201 Forest Knolls CA 94933 (415)488-4101 wwwsaferoutestoschools.org*

# SAFETY TIPS

## THE SIX SIMPLE STEPS TO STAYING SAFE:

1) When walking, stop at every curb or edge.

2) Always look and listen, especially while crossing. Look left; look right; then left again, before stepping past any curb or edge.

3) Always wear a helmet when riding a bike.

4) Always ride in the same direction as traffic.

5) Know what signs say. When walking or riding, follow all traffic signs and signals.

6) When riding, always stop; look left; look right; then left again before pulling out of a driveway.

# Helpful Hints in the Classroom

## FOR VOLUNTEERS

### Working with teachers to schedule lessons:

- If possible, book into a slot right before recess or lunch.
- Partner with the Art teacher for art lessons.
- Partner with Physical Education classes for bicycle and pedestrian rodeos.
- When arranging the lesson with the teacher, make sure the teacher or an aide will be present. Having a regular teacher present will help maintain good behavior.
- Don't be disappointed if you get turned down or get no reply. Try to send e-mail instead.
- Every school and each classroom has its own culture.

### Classroom management strategies:

- Demand respectful behavior.
- Be clear and consistent with your expectations.
- Do not raise your voice; use a whistle or a bell to get their attention. (Ask the teacher what their device is).
- Use names, ask name.

### Set up strategies:

- Have all of your materials ready to go before students arrive.
- Do not give them the materials before you deliver the instructions or they will just play with the materials and not pay any attention to your directions.
- Allow time for clean up; expect the students to help.

### Lesson strategies:

- Our ASK strategy (Answer Supplied by the Kids) means three things:
    - » Rather than instructing them, ask them, and help them arrive at the answer themselves.
    - » There is no such thing as a wrong answer.
    - » You will have to prompt them sometimes or you'll be there all day.
- Allow time for questions and/or comments. Take questions first; with younger students you'll need to be clear about the difference between a question and a comment.

# FREQUENT RIDER MILES CONTEST

The Frequent Rider Miles contest rewards children who come to school walking, biking, by bus or by carpool. Every time a child walks or bikes to school he or she gets to cross off the bike/walk box on his/her card worth two points. A child who rides the bus or carpools checks the carpool/bus box worth one point. A child who walks to the bus can count that as two points. Every card must be signed by a parent or guardian.

When the children have completed their card, they turn it in and get an instant reward by choosing something from the grab bag plus they get a new card. At the end of the year, there will be a raffle. Prizes have included bicycles, gloves, helmets, blinkies, bags, hats and t-shirts.

## HOW TO ORGANIZE THE CONTEST

### THE SIMPLE VERSION:

Schedule a set time and place when children can turn in their cards and get prizes, weekly is best. One school is collecting cards at their regular morning walk/bike day table and another is setting up an area during lunchtime once a week. You can also set up a card return in the office if you have a willing staff person. When a child turns in his/her card, you let him/her choose a reward from the grab bag and the child gets a new card. At the end of the year, schedule a special time when you can have the raffle. You can do it during lunch time, schedule a special assembly or piggy-back on an existing assembly.

### ADVANCED VERSION:

If you want to provide extra rewards for kids who walk and bike more regularly, you can track those children for special treats. Every time a child turns in a card, stamp the new card for each card they have turned in. For instance, a child turns in a card and gets a new card with one stamp. The next time, you'll see that the child's card has a stamp and you give him/her two stamps on the third card. This will let you keep track of the children who are more advanced in the contest.

You can reserve the more desirable prizes for those kids. This gives them incentive to walk and bike more often. For instance: For children who turn in one or two cards, they choose from grab bag #1. For those who turn in 3-4 cards, they get a different bag of prizes. A fifth card could get them a special treat donated by a local merchant, such as a free ice cream or video rental. You can also keep the cards with multiple stamps separate and have a special raffle for them. Publish or announce the names of those students who are turning in multiple cards. Let them be acknowledged for their special effort.

You can be somewhat flexible in your guidelines. If a child is dropped off at school but walks or bikes, or buses home, you can allow the child to count that as points. Do NOT count more than one way a day (we don't have enough prizes for that). We encourage you to only count multi-family carpools. A large family is not really doing anything different than a small family and it will seem unfair if they are allowed to be rewarded. Private schools may need to organize this differently.

### How to Announce the Contest

The easiest way to launch the contest is to announce it at an assembly and explain the rules to everyone at once. However, if you have the volunteers, it's better to go to each class and explain the contest and answer questions.

Use this contest to spread the word about walking and biking to school. Advertise the contest in your weekly newsletter, publicize the names of the winners, put their names up on a bulletin board or give them recognition at assemblies. Keep reminding the kids to "Count their Miles".

## SOME "WHAT IFS?"

What if a child gets dropped off at daycare early in the morning and can't participate? What if a child is handicapped or has special needs? Let these children be classroom monitors and allow them to get a little prize for helping out. Or give them another job to do to help with the contest. Some schools have offered alternative activities like completing activity books.

What if a child gets dropped off in the morning but walks or bikes home? If this is a child who walks or bikes regularly home, then they really are in the spirit of the contest. We leave it up to your discretion if you want to make an exception. It is more difficult to monitor the way children go home. Make sure they understand that they can't claim walking and biking home in addition to coming to school. It's one square a day.

What if a child wants to participate but his/her parents adamantly insist on driving their child themselves? This is unfortunate, but it is the parent's right. Suggest that the child find someone who lives near them who might like to carpool. If the parent refuses to carpool, then the parent may have to deal with an unhappy child, and it is their responsibility, not yours.

*Developed by Safe Routes to Schools, a project of the Marin County Bicycle Coalition, and GO GERONIMO (PO Box 201, Forest Knolls, CA 94933; Tel: 415-488-4101. www.saferoutestoschools.org).*

# WALK AND BIKE ACROSS AMERICA

## A CLASSROOM CONTEST FOR 2ND THROUGH 8TH GRADERS

Walk and Bike Across America is a great opportunity for kids to see just how far they can get by walking and biking. This is a classroom contest that promotes teamwork. Teachers can also use this opportunity as a geography and a science lesson.

## HOW TO PLAY

Children will be given a form to take home and fill out with their parents on a weekly basis. This form will allow them to keep track of the number of miles they travel walking and biking to school. Each week at a designated time, a member of the class takes all the forms and adds up the number of miles that they have all traveled during that week. Children who take the bus or carpool can contribute one bonus mile for every time they travel to school by either of those modes.

The class then takes a piece of string and measures out the total mileage using the key from the map as your guide. This string will be used to measure the miles on the map. They then decide where they want to go for that number of miles (make sure you travel along roads and not "as the crow flies").

Each week, the class travels a little farther. At the end of the contest period, the class that has traveled the farthest gets a special prize—this can be a pizza or ice cream party donated by a local business, or a special field trip. Each school can decide on the prize.

### Using this contest as part of class lessons:

Geography: As an option, the class can look up each place they travel and find out something about it. They can also get on the Internet and try to contact the city or town. There may be a school in that town that can be contacted by the students, explaining that they have "traveled" to their school.

Science: The class can also keep track of the amount of pollution they have saved. Every time a car is started, pollutants are sent into the atmosphere. Every mile after that produces more pollution. Therefore, every mile a student travels without a car is saving that much pollution. At the end of the contest period you can show how much pollution was saved by the kids not driving to school.

The startup pollution for automobiles is:

- 1.5 grams of reactive organic compounds (ROGs)
- 11.6 grams of carbon monoxide (CO)
- .8 grams of oxides of nitrogen (NOx)

Thereafter, the per mile pollution is:

- .7 g per mile of ROGS
- 8.1 g per mile of CO
- .9 g per mile of NOx