# Proposal for the Development of Travel Plans for Six Schools Within the London Borough of Merton

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# Abstract

The London borough of Merton is faced with a traffic problem. Increased congestion on the roads, due in part to the growing use of cars on school runs, has resulted in dangerous situations for children walking and cycling to school. This project utilised data from observations, surveys, interviews and focus groups to determine the most beneficial ways of reducing traffic and increasing safety around the six schools in this study. Each school received proposals to incorporate education programmes, infrastructure improvements, and travel initiatives into their distinct school travel plans.

# Executive Summary

In the borough of Merton, which is located southwest of London, problems caused by school traffic are particularly acute. According to a recent study, automobile traffic is the primary reason there is danger on London's school routes (A Safer Journey to School). The high population density in Merton, 186,000 persons in 38 square kilometres, means that even a slight increase in car usage can cause major traffic problems. Recognising these problems, the Merton Council would like to develope travel plans for all the schools within the borough, with the intention of reducing automobile usage and improving safety for children on their journey to school.

The objective of this project was to present the borough of Merton with the frameworks of school travel plans for six of its schools. The frameworks included all aspects of the school travel plan listed below:

- Demographics of the school
- A summary of the current transport methods used by students
- A summary of areas around a school, or along routes to a school, that stakeholders consider dangerous
- Proposals for schools to integrate sustainable transport into their education programmes
- Proposals for improving the infrastructure at key locations around the school
- A list of alternative transport methods schools can pursue to reduce the number of journeys made by car
- Methods for evaluating the success of the implemented plan

The six schools that received travel plans through this project include Bishop Gilpin, Hatfeild, Hollymount, and Wimbledon Park first schools, as well as Park House middle school and Ricards Lodge high school. Students at the four first schools range from ages 4 to 7, students at the middle school ages 8 to 11, and those at the high school are ages 12 to 16. In developing travel plans for these six schools, we consulted borough

officials, school officials, parents, and children, as well as observed the existing safety infrastructure and traffic patterns around each school.

We chose to interview the headteacher or a governor at each of the six schools as the first step of our methodology. School officials provided us with:

- An overview of their concerns with respect to school travel;
- How they expected to use the results of our work;
- Opinions on dangerous areas and situations around the school; and
- The names of persons involved with the school to contact for more information or feedback on the travel situation at the school.

To follow up on these interviews, we interviewed the people who were suggested to us as helpful contacts. These included:

- Parents involved in the schools' Parent Teacher Association;
- Parent governors who volunteer time to work with the school; and
- Teachers within the school who are interested in working on transport issues.

Our meetings with these contacts produced information similar to that of the headteacher interviews. However, these meetings were important because these contact people may possibly become champions for the further development of the school travel plans.

To consult with students, we chose to use short, half page surveys. These surveys were distributed to every student in each school with the help of the headteachers. The information we sought from student surveys included:

- Students' current method of travelling to school;
- Their reason for choosing this method; and
- Transport methods they would like to use if available.

We also used surveys to consult with the parents of children from the four first schools studied. Parent surveys were used to determine:

- Which areas around the school parents felt were dangerous;
- Level of parent interest in volunteering to supervise transport programs if implemented; and
- Whether parents would allow their children to walk or cycle to school.

In addition to surveys, we also conducted a focus group with parents from one school to further explore which areas they thought were dangerous, and what they thought would be successful solutions to these problems.

In all, we distributed 2138 student surveys and received 966 of them back, a 45% return rate. The highest response rate was from Hollymount first school, where 85% of surveys were returned. Only two schools failed to return more than 45% of the surveys - Wimbledon Park with 10% and Hatfeild with 18%. The varying response rates are believed to be due to time constraints and the differences in the ways surveys were distributed. A lower response rate was seen when parent and student surveys were stapled together.

Parents' survey response rates were lower. Despite return rates near 15% for each school, a sufficient amount of data was collected from parents to provide useful, qualitative information. The questions asking parents where problem areas existed were backed up by information from interviews and the focus group; because responses from surveys, interviews, and the focus group all generated similar results, it was assumed that the major safety concerns around each school had been identified. Parents were generally concerned with problems such as:

- Traffic speed;
- Parking in restricted zones;
- Congested school entrances; and
- Unsafe crossing points.

In addition to surveying and conducting meetings with stakeholders, we also observed the area around each of the six schools. These observations aided our analysis of the safety concerns indicated on the parent surveys by helping us understand the nature of these problem areas. We also conducted traffic and pedestrian counts during times of peak volume around each school to monitor their flows.

We used parent responses and observational data to propose various infrastructure changes to the borough for consideration. We made several suggestions for specific changes to each location, such as crossing points at dangerous intersections. The detailed recommendations for each school are generally included within a scheme to make the areas around a school pedestrian friendly. Pedestrian friendly zones have the advantage of slowing traffic without requiring highly restrictive measures, which in turn lowers the level of perceived danger parents have about school areas. The measures we recommended for pedestrian friendly zones include:

- Coloured asphalt and warning signs on the approach to schools;
- Raised crossing points to make pedestrians more visible to traffic;
- Speed humps;
- Road narrowing;
- Zebra crossings; and
- Pedestrian islands.

Some additional recommendations we made that fell outside the areas covered by pedestrian friendly zones included cycle lanes and safe crossing points at dangerous intersections along heavily travelled routes that extend far enough from each school to service the schools' catchment areas.

Education initiatives were also proposed as a measure to increase student safety and the awareness of environmental issues associated with using sustainable transport methods. Interviews with headteachers indicated that schools were concerned with the amount of time available for taking on additional courses dealing with transport; therefore, our education proposals focused on ways in which schools can integrate school travel and its offsets in a cross-curricular fashion into the existing national curriculum. We also recommended extra-curricular educational programs having transport themes, such as:

- Assemblies with guest speakers;
- Student theatre productions; and
- Borough-wide logo designing competitions promoting sustainable transport.

Parents were the second group we targeted educationally. Their awareness of transport issues could be met through training sessions, such as for walking bus volunteers, or through informational newsletters or pamphlets.

Finally, we proposed transport programs that schools could pursue to lower the number of students travelling to school by car. The parent surveys suggested which transport methods would be best accepted at each school. The recommendations we made included:

- Cycling campaigns;
- Walking buses;
- School bus systems; and
- Car sharing initiatives.

These recommendations will be refined by the borough after our departure, and could eventually lead to infrastructure, transport, and education developments. In addition, the borough hopes to use our methodology to develop travel plans for other schools within the borough.

In conclusion, the proposals we made in this project are intended to reduce automobile usage and increase the health and safety of children. Other benefits of our recommendations may include an improvement in air quality, a decrease in automobile accidents, and shorter travel times. Encouraging sustainable transport now will likely result in its continued use in the future and enable Merton to move closer towards its goal of sustainable development.

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# 1.0 Introduction

It is 8:45 in the morning and the roads around a school entrance are congested with traffic and students trying to get to school. Parents are driving up and down the street looking for a free parking space; other parents give up their search and pull into restricted parking zones. Children dropped off on the side opposite the school entrance dart between parked cars to cross the street. Students who walked to school from home faired little better as they encountered dangerous crossings on busy roads. This scenario is not uncommon for schools located in cities throughout the United Kingdom; Figure 1 shows a photograph taken in front of the Bishop Gilpin and Park House school entrances, schools involved in this project.

**Figure 1:** A dangerous situation during the morning rush outside the gates of Bishop Gilpin and Park House schools. The child on the right is crossing from in-between two parked cars on to a busy street, with one car turning towards him and another moving down the street in his direction.

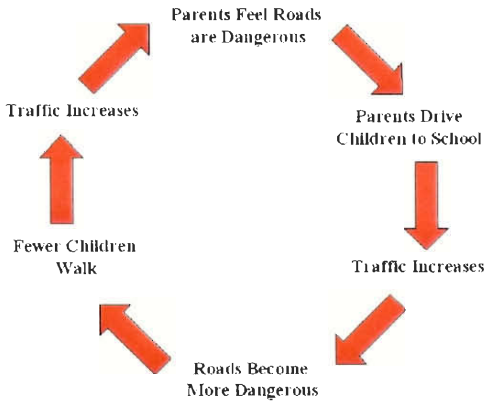



**Figure 2:** This figure shows how transport choice and the safety of school areas are related.

Due to situations like the one above, many parents are concerned for the safety of their children. Because parents are concerned for their child's safety, many parents chose to drive. Ironically, these drivers add to traffic volume, and thus increase the danger to those walking and cycling. As the danger to people walking and cycling increases, more parents drive their children to school. Left unchecked, this cycle (shown in Figure 2) could cause traffic volume to increase continuously.

The percentage of students in the United Kingdom travelling to school by car has nearly doubled in the past 14 years from 16 to 29 percent. Increased traffic volume has contributed to many deaths and injuries. In 1998, 24,900 children in the United Kingdom were killed or injured by automobiles while walking or cycling (DETR www.detr.gov.uk).

In aiming to reduce the number of cars on the roads, so as to increase the health and safety of people and the quality of the environment, sustainable development has become a popular progressive movement. Sustainable development meets the needs of the present without compromising the ability of future generations to meet their own needs (Local Agenda 21 1). Sustainable transport is a part of this development, as it is encourages means of transport other than the car. Sustainability focuses on adjusting

current behaviours and attitudes in order to maintain the environmental balance, quality of life, and economic prosperity for future generations throughout the world.

Traffic has been cited as the primary reason there is danger on school routes (A Safer Journey to School 4). In the London borough of Merton, the traffic problem is particularly acute. Due to the high population density in Merton, 186,000 people in 38 square kilometres, even a slight increase in car usage amplifies traffic congestion. As the traffic volume intensifies, so does the danger to children walking or cycling to school. The Merton Council recognises the traffic problem around its schools and is seeking ways to decrease this congestion.

Through initiatives and programmes designed to promote public transport, cycling, and walking, such as school travel plans, the borough of Merton hopes to improve road safety (22). Discouraging parents from driving their children to school is intended to decrease congestion and make the roads more safe and healthy for students who choose to use alternate modes of transport to school. In addition to decreasing car usage, it is also important to encourage sustainable transport methods by improving the safety of existing travel routes. Educating people about the importance of sustainable travel is crucial to the success of school travel plans.

The objective of this project was to construct the framework for the development of travel plans for six schools within the borough of Merton. These travel plans were formulated through consultation with borough officials, headteachers, parents, and children, as well as observation of each of the schools involved and schools with existing successful travel plans. Each school travel plan includes proposals for alternative transport initiatives, suggestions for traffic calming measures, ideas for related educational programmes, and strategies for future development and monitoring.

Continued development of the school travel plans by the individual schools, with help from the Merton Council, should reduce traffic around these schools. In turn, public safety should increase and pollution levels are expected to drop as the borough and greater community moves ahead in aiming for sustainable development.

These proposed school travel plans could be used for the future development of travel plans for other schools with similar situations. Schools can use these plans as a guide to initiate their own customised travel plans and programmes after those of the six schools in this study. Another future benefit of these plans is the influence that sustainable forms of transport have on children. Those that use sustainable transport now will likely continue to use it in the future. Most importantly, school travel plans can help the borough of Merton move forward with aims of sustainable development – to secure higher standards of living, now and in the future.

# 2.0 Literature Review

We conducted background research into several areas in preparation for developing school travel plans with the London Borough of Merton. Research concerning the experiences of other communities throughout Britain and the United States was especially important, as it revealed both successful and unsuccessful approaches to developing school travel plans. This literature review also discusses background on traffic congestion, psychological motivation theory, sustainability, urban planning, and data collection methods. Traffic congestion, sustainability, and urban planning are discussed because they relate directly to the traffic safety proposals we made in our final travel plans. Finally, because one purpose of our project is to change people's attitudes towards school travel, we researched physiological theory.

## 2.1 Psychological Motivation Theory

To encourage people to cooperate, whether it means getting them to return a survey, attend a focus group, become involved with a proposed travel plan, or accept change, they need to be motivated. An understanding of psychological motivation theory is related to our objectives and goals for proposing school travel plans. The motivation of all the stakeholders within a community is crucial for the development and success of school travel plans (DETR Case studies report 88). Motivation theory has multiple aspects that should be considered when looking to inspire people towards action. The information in this section focuses on theories by philosopher Abraham Maslow.

### *2.1.1 Desire and culture*

Maslow believes that humans, in general, do not differ as much as their conscious, everyday desires do. People in different parts of the world may strive for different things,

but the end goals are usually the same (22). For instance, self-esteem is a driving force that motivates people toward action. Children that can walk to school without parental escort can obtain a certain "status" which strengthens their self-esteem and may motivate them to work harder at other tasks.

*2.1.2 The individual as an integrated whole*

Maslow believes that the first proposition of motivation theory is that the individual is an integrated, organized whole (Maslow 19). This theory has a variety of meanings; it can be viewed as implying that an entire organism must be motivated, rather than a part of that organism alone. As Maslow states, humans are not comprised of separate working systems, but are interactive; it is not one's stomach that is hungry, but the one's self as a whole (19).

Another way this idea can be viewed is that each person is a small part integrated into the earth's entire system. Maslow says that humans are not independent from other systems around them; rather, humans are in direct relation to the processes around them. If people are not balanced with their outside relationships, the relationships will be affected negatively (Sustainable Development – The UK strategy summary report 7). For example, if the environment is polluted, this will alter the state of health of humans and other things that live among the pollution. Since humans are the primary contributors to the earth's pollution problem, only they are able to reverse this trend. Doing this will not only help the environment, but will also help all humans, as these two systems are interrelated (Maslow 20).

Achieving balance with nature is key principle of sustainability. Achieving this balance often involves large groups of people making basic changes in their daily

schedule, such as walking, rather than driving, to school. Motivation is essential in producing changes to work towards sustainable systems.

## 2.2 Sustainability

The sustainability movement is, first and foremost, a global movement that aims to structure economic, community and ecological development together in order to obtain sustainable advancement (Newman and Kenworthy 4). Sustainable advancement is balancing the needs of the present with those of the future. Because of its general nature, sustainability is one of the most diversely applied concepts among academics and professionals involved in long-term planning.

Sustainability includes economic, community, and environmental planning. Economic development includes achieving sustained economic growth, maximising profits, and expanding markets. Community development involves increasing local self-reliance, satisfying basic human needs, increasing equity, guaranteeing participation and accountability, and using appropriate technology. Ecological development aims to respect carrying capacity, conserve and recycle resources, and reduce waste (4).

### *2.2.1 Community Plans and Participation*

Cities around the world are now recognising the need to pursue sustainability. However, while the implementation of sustainability plans can be important, it is also challenging. Sustainability plans are important because they give planners clear tasks for the organisation of cities rooted in improving local environment (20).

Research shows that in order to reverse existing trends, plans must gain public acceptance to be successful (23). However, in times of transition from one paradigm to another, professionals in transport, planning, and engineering may have little to fall back on (23). From past planning experiences that have failed, it is now known that

sustainability requires new approaches, most of which must involve the interests of the community (23). Critical to developing a direction on sustainability in any city is community participation and partnership with urban planning professionals (23).

*2.2.2 Automobile Dependence and Priorities*

The recent increase in the popularity of the automobile has put pressure on the transport network of many cities (125). In some cases, governments have taken money away from mass transit systems in order to meet the pressures of increased automobile usage (126).

Most urban and travel planning currently revolves around the car. Changes designed to increase the safety of pedestrians and cyclists, such as traffic calming measures, are relatively new, and still rare (Leonard 14). Without alterations to urban planning, the increasing automobile usage will continue to negatively impact the economy and environment. Urban planning must work to change current environments to lessen the dependence on automobiles.

## 2.3 Urban Planning

Urban planners should consider multiple issues when planning changes or initiating developments to urban design. Along with sustainability, some issues include feasibility, practicality, and receptiveness. Worcester Polytechnic Institute professor and urban planning expert Malcolm FitzPatrick promotes developing a rational model to ensure that planners consider all these issues. A rational model consists of pragmatic planning, implementation, and evaluation (FitzPatrick 47).

*2.3.1 Pragmatic Planning*

For plans to be rationally evaluated, in-depth research of a problem must be conducted before planning begins. Once the problem is understood, goals and objectives

should then be formulated. These goals and objectives focus the planning process. In urban planning, goals are set such that they will be completed by a series of projects. Objectives are formulated for individual projects. Through the completion of many projects, and thus achieving many objectives, a goal is reached. For example, the goal of a project may be to make roads safe for pedestrians in London. One project cannot address the entire goal; so, several projects would be formed, each with a different objective. One may address the attitudes of citizens towards road alterations, and another may formulate school travel plans to make children in specific areas safer (FitzPatrick 11 February 2000).

After establishing objectives for a project, a list of alternative solutions, or possible ways of meeting objectives, should be developed. The next step in the plan is to evaluate each alternative based on a set of criteria. FitzPatrick states that a relationship model should be constructed to determine how the involved variables are connected (11 February 2000). These variables should be considered because urban plans create changes that impact many stakeholders. Alternatives that meet all relevant criteria are considered solutions.

*2.3.2 Implementation*

Implementation is the process of integrating solutions into a community. The implementation of travel plans can be difficult without the acceptance of the community (Smith 29). Implementation may occur in steps, to acclimate citizens to a change, or it may take place all at once. Past studies have found travel plans benefited more from an incremental implementation. In the past, implementing changes in steps has allowed communities time to react and suggest changes before the entire project is completed (Smith 31).

*2.3.3 Evaluation*

The process of eliciting feedback from the stakeholders concerning an implemented plan is termed the evaluation process. Evaluating a plan allows the planners to expand aspects of the plan that work, and re-evaluate those that do not (Fitzpatrick 11 February 2000).

Evaluation processes vary, and the methodology used to evaluate the plan is dependent on the situation. Several appropriate review methods are surveys, interviews, meetings, and ballots (Cline 22). Most importantly, the frequency and continuation of monitoring is considered key in the overall success of a plan (23).

## 2.4 Groups Concerned with Transport in the United Kingdom

Organisations and towns in London and throughout the United Kingdom have used a methodology similar to the one explained above to create travel plans for school children. Although some aspects of school travel plans are specific to individual communities, the methodologies and experiences of other communities and transport organisations provide useful information that can help produce successful plans.

*2.4.1 Department of the Environment, Transport, and the Regions*

The largest transport organisation in the United Kingdom is the Department of the Environment, Transport, and the Regions (www.detr.co.uk.gov). The DETR currently funds many of the organisations discussed in the following sections. In addition, the DETR has published a school travel guide, *School Travel Strategies and Plans: a Best Practice Guide for Local Authorities*, and a book of case studies from past school travel plans projects, *School Travel: Strategies and Plans: Case Studies Report*, which contain important steps to consider when developing a school travel plan, as well as information about existing programs (www.detr.co.uk.gov).

*2.4.2 Sustrans*

Unlike the DETR, which is a government organisation, Sustrans is a charity organisation. Sustrans, whose name is derived from "sustainable transport," promotes sustainable means of transport (www.sustrans.org.uk). The purpose of Sustrans is to work on practical projects that encourage people to walk and cycle, and hence reduce motor traffic and its adverse effects (www.sustrans.org.uk).

One of the major projects sponsored by Sustrans is the National Cycle Network, which is predicted to open in June 2000. This network is comprised of 5000 miles of continuous traffic-free or traffic calmed routes running through urban centres and reaching all parts of the United Kingdom. Approximately one-third of the population of London is currently located within two miles of the planned routes. By the year 2005 the network is expected to grow to 9,000 miles. Half of the network is comprised of special crossings, junctions and turns inserted into city streets, designated cycle lanes, and speed humps on busy roads; the other half of the route is located along traffic free routes that include old rail lines, canal towpaths, bridle paths, and forests (www.telegraph.co.uk).

Sustrans is also involved in the "A Safe Route to School" campaign, which encourages children to walk or cycle to school. By improving street design, calming traffic, designating traffic free spaces, and linking school routes with the National Cycle Network, Sustran's plan aims to enable children to travel on safe routes to school (www.sustrans.org.uk). The pilot project includes ten schools from London and urges an increase in the number of safe routes to school (www.telegraph.co.uk).

*2.4.3 Transport 2000*

Sustrans is working in conjunction with Transport 2000 on the "A Safe Route to School" campaign. Founded in 1973, Transport 2000 is a national environmental

transport campaign group with the goal of promoting sustainable and accessible transport (Transport 2000). As part of the "A Safe Route to School" project, Transport 2000 has published a pamphlet, *A Safer Journey to School*. Transport 2000 is also involved in a partnership program funded by the DETR that aims to reduce car journeys to school and work (Transport 2000).

## 2.5 Traffic Safety Initiatives

Transport organisations have focused attention on traffic safety for children because deaths and injuries among children in the United Kingdom are uncommonly high. For example, in 1994, 202 children were killed, 5,642 seriously injured, and 21,476 slightly injured due to car accidents within the United Kingdom. Since 1985, six children on average each week have been killed on the road, the second highest fatality rate in Europe (Safety on Streets for Children 1). Because journeys to school bring large numbers of children to the streets, traffic safety initiatives around schools are especially important in attempts to reduce United Kingdom's accident rate. Traffic safety initiatives include alterations of roads and other infrastructure around schools.

### *2.5.1 Traffic Calming Measures*

Traffic calming measures (TCMs) are an example of traffic safety initiatives. TCMs are physical changes to local and feeder roads designed to make travel more difficult for automobiles and at the same time, more pedestrian and cyclist friendly (Leonard 14). Transport planners have studied TCMs and their applications in a variety of situations. Leonard, a transport expert, explains in *Urban Traffic Calming Measures Conformance with AASHTO and MUTCB Guidelines* the basic types of TCMs and where each measure is appropriate (15).

*2.5.1.1 Intersection Diverters*

Intersection diverters involve restricting the direction that automobiles can turn at an intersection. For example, at a T intersection a raised triangular divider may be used to restrict vehicles from making a right turn, as shown in Figure 2.1 (15).

**Figure 2.1:** T-Intersection with diverter

*2.5.1.2 Roundabouts*

Roundabouts, or traffic circles, are uncommon in the United States but very popular in Europe and the United Kingdom. Roundabouts allow traffic to yield rather than stop at intersections; when used appropriately, roundabouts decrease delays at intersections (15). For example, after installing roundabouts, the city of Tucson, Arizona noticed a six percent drop in traffic volume near the roundabouts (25). However, roundabouts require large areas to construct and can be dangerous to pedestrians if there are no pedestrian walk lights (15).

*2.5.1.3 Speed Humps*

Speed humps are raised sections of pavement used to slow traffic in low traffic volume areas. The profile of a speed hump depends on the traffic condition for which it is designed. Speed humps are placed at different distances, between 80 and 130 metres, depending on the expected traffic speed (15). Tucson achieved excellent results by using speed humps; the number of vehicles exceeding the speed limit was reduced by an average of 49.9 percent for 26 different streets (25).

*2.5.1.4 Speed Tables*

Speed tables are very similar to speed humps, but they also accommodate a crossing point, such as a zebra crossing (similar to a crosswalk), on the top. This elevated crosswalk not only slows cars as they pass over it, but also changes the

psychological impact of the road; elevating pedestrian walks gives the impression that pedestrians dominate the road (16).

*2.5.1.5 Street Narrowing*

Street narrowing is less restrictive than intersection diverters, but more so than speed humps or tables. Drivers tend to slow, as the road gets narrower; this is termed "side friction" among transport planners. Street narrowing does not require permanent changes to the shape of the road, and can be accomplished simply by adding landscape features such as trees or street lights, or more commonly, street signs such as posted speed limits or school zones. This narrowing is a psychological warning to drivers that they are entering a low speed area (16).

*2.5.1.6 Driveway Links*

Driveway links connect a series of driveways before emptying into a main road. An alleyway is an example of a driveway link. Limiting access to main roads lessens potential accident spots (16).

*2.5.1.7 Street Closings*

Street closings are the most restrictive traffic calming method. As the name implies, street closing involves eliminating automobile access to parts of existing roads. This process is beneficial to pedestrians and cyclists who no longer have to compete for road space, but street closings can lead to excess traffic on nearby streets (16).

*2.5.1.8 Lower Traffic Speeds*

Currently, all school areas in Merton, and most other areas in the United Kingdom, have a speed limit of 30 mph (Pete Thomas 3/2000). Case studies conducted by Sustrans have shown that by lowering the speed limit in school zones to 20 mph, the number of children hurt while walking to school was reduced by approximately 67%, and

cycling injuries were cut in half (Safety on the Streets for Children 3). Lower traffic speed allows drivers more time to react to a child stepping into the road. Also, the decrease in speed warns drivers that children are in the area and that they need to be especially cautious (School Travel Strategies and Plans 42).

*2.5.2. Additional Infrastructure Changes*

In addition to TCMs, schools can consider such infrastructure changes as safe crossing points or measures to separate cyclists and pedestrians from automobile traffic. There are several options for improving the safety of travel routes; some that can be especially beneficial for improving school routes are described below.

*2.5.2.1 Safe Crossing Points*

Crossing points include zebra, pelican, toucan, and puffin crossings, as well as patrolled crossings. The implementation of a school crossing point depends on several factors, including the volume of traffic in an area around the school and the number of children crossing unaccompanied (A safer journey 19). To be considered for a crossing, a location must present a danger to pedestrians. Danger can come from high traffic volumes, high pedestrian volumes, high traffic speeds, or a combination of factors. In the past, only areas with high traffic and pedestrian volumes have been considered for crossing points. However, factors such as the importance of a crossing point in an overall school routes plan or the number of children crossing unassisted at a point are now factors in determining the location and type of new crossing point infrastructure (Pete Thomas 19/4/00). According to the DETR publication *A Safer Journey to School*, the following methods are often used as safe crossing points (19):

**Figure 2.2:** 'Lollipop person,' or crossing supervisor, standing in a pedestrian island in the middle of a zebra crossing near Wimbledon Park first school. At the time this picture was taken she was stopping traffic to let the girl on the left cross.

Patrolled Crossings

A "lollipop person," pictured in Figure 2.2, controls patrolled crossings. These officers are trained to stop traffic so that school children may cross the road safely.

Zebra Crossings

A zebra crossing, shown in Figure 2.2, is a walkway with white and black stripes identified by flashing yellow lights. Cars must stop at a zebra crossing in order to allow pedestrians to cross.

Pelican Crossings

A pelican crossing, as seen in Figure 2.3, is a crossing point where a signal with a 'green man' flashes when it is safe to cross. Motorists see a red light for the duration of this crossing period. The pedestrian signal displays a 'red man' when it is unsafe to cross, and motorists see first a yellow blinking light and then a green light.

**Figure 2.3:** A young girl activating a pelican crossing. Notice the 'red man' is displayed on the opposite side of the street (Tomorrow's Roads – Safer for Everyone 70).

Puffin Crossings

A puffin crossing, shown in Figure 2.4, is similar to a pelican crossing, but it has the 'red and green man' signals on the near, rather than far, side of the street and the 'green man' signal does not flash on and off. A puffin crossing also has two detectors. A black mat is used to tell when pedestrians are waiting to cross; if no pedestrians are standing on the mat, the crossing will not stop traffic. This feature is intended to eliminate unnecessary delays caused to motorists from pedestrians who activate the signal then cross before it turns. The other detector controls the red light signal to drivers by detecting the motion of pedestrians crossing the street. The detector will not give motorist a green light until all pedestrians have crossed (A Safer Journey to School 16-17).


**Figure 2.4:** Signal for puffin crossing; notice that the 'red and green man' signals are above the 'wait' box, rather than across the street as they would be in a pelican crossing.

*2.5.2.2 Parking Bans*

Parking bans can also decrease accident rates around schools. Many schools have added yellow zigzag markings that include "SCHOOL – KEEP – CLEAR," shown in Figure 2.5, in front of their entrances. These markings indicate no parking areas. Parking bans are used to separate the large groups of children who often gather in front of school entrances before and after school from the automobiles in the street. No-parking areas also provide locations where children can cross a road without having to step out from in between cars (Driving Children to School 1).

**Figure 2.5:** No parking zone in front of Bishop Gilpin first school. Only part of the 'SCHOOL – KEEP – CLEAR' is visible, as the zone extends for most of the length street.

Some schools also use parking bans near street corners. These bans allow the pedestrian to be seen whilst crossing the end of a street. No-parking zones at intersections also increase visibility for motorists. Where no-parking restrictions are not in place around intersections, pedestrians must walk into the road before they can see around the parked cars and determine if it safe to proceed.

*2.5.2.3 Cycle Routes*

For students who wish to cycle, cycle routes are intended to promote cycling by increasing the safety of journeys. Most successful cycle routes are implemented over long distances; this is especially important for planning routes to school in areas where students will need to make safe journeys from the school's entire catchment area. Whether routes are constructed along roads or footpaths, substantial infrastructure changes are often necessary. Infrastructure changes needed to turn an unimproved footpath into a route include clearing, surfacing, and lighting. Cycle routes along existing

roads may require new intersection designs that give priority to cyclists and room for cyclists on either the road or the pavement (A Safer Journey to School 20).

*2.5.2.4 Safe Houses*

As part of road safety training, children can be taught to use safe houses. Safe houses are houses or businesses on the routes to school that have volunteered to shelter children that are being harassed by bullies or strangers. A sign or sticker in a window alerts children of the location of a safe house. In addition to providing safe shelter to children, safe houses also may reassure parents who are concerned about their children's safety from strangers or bullies (Safe Routes to School 4).

## 2.6 Travel Initiatives

Safe routes to school do not involve only infrastructure changes; rather, schools should incorporate both plans to make routes safer and suggestions for using transport methods other than the car into their plans. These alternative transport initiatives can help alleviate traffic congestion and pollution around schools as they all encourage parents to drive their children less often.

The alternative transport initiatives in the following sections also involve social interaction of students during the journey to school. Sustrans believes that driving children to school deprives them of the chance to interact with their peers (Safe Routes to School 2). The alternative initiatives discussed in the following sections include walking, walking buses, cycling, school buses, and car sharing.

*2.6.1. Walking*

Walking is the least expensive and simplest alternative transport option. Exercise is an important benefit of walking. The Chartered Society of Physiotherapy (CSP) has found that most children do not get enough exercise adults (Safe Routes to School 2).

Many are short of breath after the simplest exercise, have poor posture, and are tired and lethargic. The CSP and Transport 2000 have also found that more active children become more active adults (4)

According to Sustrans and Transport 2000, walking is also healthier than driving. Children who walk to school are actually exposed to less air pollution than those who travel by car (Safe Routes to School 1). Higher pollution levels exist inside a stopped car than outside the car nearby (A Safer Journey to School 4).

In addition to the physical benefits, walking also helps children develop road sense and an increase in independence. Driving removes the need for children to make their own decisions on the street; parents make all of decisions while driving. The government's *White Paper* states that children who travel in cars are less likely than children who walk to make decisions for them selves, and, according to the DETR, children could endanger themselves and others if alone on a street (Safe routes to School 2).

Walking initiatives aim to help reduce the number of trips made by cars, as well as to help children stay fit, develop active lifestyles, breathe easier, develop better road sense and pedestrian skills, reduce stress, and increase self-esteem (A Safer Journey to School 13). "Walk to school" programmes are one method of encouraging students to walk to school. Walk to school programs often include ways to motivate students to walk including badges, stickers, and rewards or incentives given to students who walk (19). However, many parents feel that their children are not safe walking to school alone and do not have time to walk their children to and from school each day. The walking bus was developed to address these concerns.

*2.6.2 Walking Bus*

A walking bus, shown in Figure 2.6, consists of a group of students, accompanied by at least two parents, who walk to and from school each day on a specified route. A parental volunteer acting as the "driver" leads the way while another parent, called the 'conductor', walks at the rear of the group. The Borough of Merton and Transport 2000 suggest a ratio of eight children to each parent volunteer. The bus follows a specified route and stops at agreed pick up points; all children wear coloured vests to make them identifiable and visible to traffic. (A Safer Journey to School 18, Chris Braidwood 25/4/00).

**Figure 2.6:** A walking bus departing a school; notice that the bus is led by the 'driver,' who is helping the girls push the car, and is followed by another parent in the rear, referred to as the 'conductor' (School Travel Strategies and Plans 32).

In the interest of safety, the Borough of Merton and Transport 2000 also recommend that all volunteers participate in a road safety-training course and have their police records checked before participating in a walking bus scheme. Also, due to

liability concerns, it is recommended that schools make arrangements for liability insurance providers to cover volunteers (A Safer Journey to School 18-19, Chris Braidwood 25/4/00).

In addition, parents should sign a consent form stating their child understands the safety guidelines of the programme (18). Walking buses are a safe alternative to cars for children and can be convenient for parents; children are supervised at all times, and parents only have to walk the route once or twice a week (DETR 32). Walking buses are typically only implemented for students who live within one mile of their school and are under ten years of age. At this age, many children are unable to judge speed and distance accurately, which may lead to poor decisions when crossing roads (33).

*2.6.3 Cycling*

For distances of more than one mile, cycling is a more practical option. Like walking, cycling is accessible to most and generally affordable. The London Cycling Campaign promotes the belief that many children enjoy cycling and may even look forward to the journey to school if it can be completed on a bicycle (London Cycling Campaign). However, at present, cycling is not a popular means of school transport in the United Kingdom because, in many cases, streets are too dangerous or schools lack the necessary bicycle storage facilities. Despite these obstacles, cycling is an attractive alternative to automobiles because most children in the United Kingdom own a bicycle and many show interest in cycling to school (DETR 34).

*2.6.3.1 School Cycle Parking Permits*

Sustrans recommends that school officials, parents, and students draw up a contract that clarifies the conditions students must meet to be allowed to cycle to school (Cycling to School 1). Sustrans also suggests that these guidelines be introduced along

with a cycle parking permit, which could be revoked if students do not follow the contract. The content of the school cycle parking permit should contain advice and guidelines on safe, courteous, and responsible cycling, refer to Appendix D. Sustrans also recommends that each school draw up a parent consent form similar to the one in Appendix C (1).

*2.6.3.2 Insurance*

Most cycles are covered by standard household contents insurance (Cycling to School 1). Schools generally do not take responsibility for the theft of a bicycle parked in the school area as schools as they cannot afford the liability insurance to cover bicycle theft (2).

*2.6.3.3 Security*

Even though the responsibility for the theft of a bicycle falls on the student, schools can help prevent theft. Measures taken in the past have included the construction of locked cycle sheds, cycle sheds with secure locking points, or even CCTV surveillance of a cycle area (Cycling to School 2). Sustrans and Transport 2000 also recommend locating any cycle parking facilities in an area overlooked by classrooms or the school office (Cycling to School 2, A Safer Journey to School 20). However, even in secure areas, cycles should be locked to a solid object using a 'U type' lock to secure the frame (Cycling to School 2, A Safer Journey to School 20).

*2.6.3.4 Cycle Training*

In addition to being provided with cycle parking facilities, Sustrans suggests that students should receive appropriate cycle training before being allowed to cycle to school (Cycling to School 2). The best instructors for providing cycle training are often experienced adult cyclists from the community. However, Sustrans and Transport 2000

suggest that every instructor should be certified and have undergone a police vetting to ensure the children's' safety and to reassure parents that their children are safe with the instructors. With any instructor, the DETR suggests that the best cycle training programs generally include on-road experience, as well as classroom work (A Safer Journey to School 21, Cycling to School 2).

*2.6.3.5 Storage for books and equipment*

Sustrans also recommends providing appropriate panniers for students to carry books and equipment to and from school, as well as providing secure lockers for children to store their cycling equipment (Cycling to School 2).

*2.6.3.6 Condition of cycles*

The condition of cycles ridden by children can be as important as the facilities to park cycles or the training given to children to ride them. Sustrans recommends that all cycles ridden by children should be roadworthy and regularly maintained (Cycling to School 2). Staff or safety officers should perform random inspections to check on the conditions of tyres, brakes, pedals, lights, reflectors, and chains. Worn or unsafe bicycles can cause accidents or leave children stranded halfway to school with a flat tyre. Cycles should also be kept clean so not to ruin uniforms and books; this applies especially to chains, which are notorious for ruining trouser legs (2).

*2.6.3.7 Safety Gear*

When children are riding their bicycles, they should wear helmets to protect their heads from injury due to an accident. According to both Sustrans and the DETR helmets should meet at least one of the following safety standards - BS 6863, AS 2063, ANSI Z90.4, SNELL B90, or B95 - and should be fitted properly (Cycling to School 2, A Safer

Journey to School 21). Children should also wear lightweight reflective clothing to make them more visible to traffic (2).

*2.6.4 Public Transport*

For children who live too far from school to walk or cycle, or whose routes are too dangerous, public transport presents another alternative to automobiles. Public transport alternatives may include buses, trains, or an Underground system. These options are especially attractive to middle and high school students because it increases their independence (DETR 40). While public transport is efficient, seldom affected by weather, and environmentally friendly, it is not always an appropriate choice. Many parents of younger students are less likely to send their children to school on public transport. For other students, expense is also an issueBecause of these safety and economic concerns, some towns have provided reduced fares for children and parental escorts on public transport (A Safer Journey to School 23).

*2.6.5 School Buses*

Cities and towns in most areas of the United States have developed school bus systems as a means of transporting students to school. These buses are usually funded and run at the city or town level. Buses travel specified routes each day to and from school, and eliminate many of the reasons parents drive their children to school; school buses are generally safe, dependable, and involve little effort on the part of the parents. Buses can provide a way of efficiently transporting large numbers of students to and from school safely without using cars.

In the United Kingdom, public buses are sometimes used as school buses. To make these buses accessible to students, some changes may be necessary. For example, Transport 2000 suggests that schools should negotiate low fare deals for students. If bus

routes become more popular, the additional income can cover the cost of the discount. Routes may need to be changed in order to make buses more convenient for students. To accomplish this, the times when the bus runs or the stops it makes may need to be changed to meet the needs of students. In addition, new bus services can be implemented if the demand for buses increases. Also, the DETR relates problems that have occurred between bus drivers and adolescent students. In some cases, the driver of a bus may require encouragement to have a positive attitude in dealing with children, and in all cases children should be asked to respect the bus drivers. One way to regulate behaviour on buses is to adopt a behaviour code to be enforced by the school (Safer Journey to School 22-23).

*2.6.6 Car Sharing*

Another alternative transport method that can lessen, though not eliminate, the number of cars on the roads, is car sharing. Car sharing reduces the number of automobiles used to drive students to school by combining groups of students into one car. Not only is the number of automobiles on the road reduced, but car sharing can be convenient for parents as well. Rather than driving every day of the week, each parent in a car sharing arrangement drives only once or twice a week. Transport 2000 suggests the following guidelines for initiating a car-sharing program. To start a car-sharing program, the school should first send a letter home to parents supporting car sharing and providing information on how many other families there are in the area. Interested parents provide their names and contact information for the school to pass on to other parents (A Safer Journey to School 24).

## 2.7 Educational Initiatives

In addition to travel initiatives and infrastructure changes, successful travel plans often involve educating students, as well as parents about the importance of sustainable transport and road safety (A Safer Journey to School 12-14). Many people do not realise the importance of their own actions or the consequences they have on the school travel problem. Education can help students and parents understand what they can do to help make the areas around their schools safer.

*2.7.1 Curriculum*

The borough of Merton school system will adopt the new national curriculum in the fall of 2000 (Eddy Taylor 21/3/00). This curriculum is divided into "Key Stages" within the programs of study. The key stages that are relevant to the schools being studied are Key Stage One, for students ages seven and under, Key Stage Two, for students ages eleven and under, Key Stage Three, for students from ages twelve to thirteen, and Key Stage Four, for students from ages fourteen to sixteen. Each teacher is provided with topics that should be covered under each programme and possible activities that may fit the requirements. Because there is little extra time in the curriculum, school travel education should be implemented into the curriculum through existing lessons, especially in the subjects of geography and PSHE (A Safer Journey to School 15).

*2.7.1.1 Geography*

According to the National Curriculum, teaching should ensure that students use geographical enquiry and skills when developing the knowledge and understanding of places, patterns and processes, environmental change, and sustainable development (Blunkett and Stubbs 110).

Key Stage One is the curriculum used in the first schools. During Key Stage One, students investigate their local area and a contrasting area in the UK, finding out about the environment and the people who live there. They carry out geographical enquiry inside and outside the classroom. In doing this, they ask geographical questions about people, places, and environments, and use maps and photographs (110). Appendix E contains the guidelines from the curriculum that apply to school travel plans.

Key Stage Two is the curriculum used in the middle schools. During Key Stage Two, students investigate a variety of people, places, and environments at different scales in the UK, and start to make links between different places in the world. They find out how people affect the environment and how they are affected by it. Students carry out geographical enquiry inside and outside the classroom. In doing this, they ask geographical questions and use geographical skills and resources such as maps, atlases, aerial photographs, and information and computer technology (ICT) (112). Appendix E contains the guidelines for incorporating these ideas into the curriculm.

According the national curriculum guidelines, there are a variety of topics involved in school travel plans that can be integrated into the geography program. For example, children can observe the structure of the roads around the school or focus on the parking problem through surveying (A Safer Journey to School 14-15). There can also be design activities involving geography, in which students make models of the area around the school and learn where the dangerous areas are and how to be safe around them (A Safer Journey to School 15).

*2.7.1.2 Personal, Social and Health Education and Citizenship*

According the national curriculum guidelines, personal, social, and health education, as well as citizenship instruction, help to give students the knowledge, skills,

and understanding they need to lead confident, healthy, and independent lives (Blunkett and Stubbs 137). These sections of the national curriculum are designed to help students find out how the main political and social institutions affect their lives, and about their responsibilities, rights, and duties as individuals and members of a community (137).

Through PSHE and Citizenship during Key Stage One, children learn the basic rules and skills for behaving well and keeping themselves healthy and safe, and that they have the opportunity to show they can take responsibility for themselves and the environment. Students also begin to take an active part in the life of their school and its neighbourhood (137). The curriculum related to school travel plans in this stage can be found in Appendix E.

Through PSHE and Citizenship during Key Stage Two, children become more mature, independent, and self-confident. They develop their sense of social justice and moral responsibility, and begin to understand that their own choices and behaviour can affect local, national, and global issues, as well as political and social institutions. Students learn how to take part more fully in school and community activities. Also, they learn how to make more confident and informed choices about their health and environment, to take responsibility individually and as a group for their own learning, and to resist bullying (139). The curriculum requirements that are related to school travel plans can be found in Appendix E.

Topics that can be integrated into PSHE and citizenship curricula include road, pedestrian, and cycling safety, health benefits of walking and cycling, stranger danger, reduction of air pollution, and making responsible choices to become a good citizen.

*2.7.1.3 Sample Unit: How can we make our local area safer?*

The National Curriculum Manual suggests a sample unit called "How can we make our local area safer?" to be used by teachers for the students of YEAR 1 (Blunkett and Stubbs). This lesson plan is an example of how school travel plan ideas can be incorporated into the curriculum. This unit includes speaking and listening, IT, music, science, and PSHE and citizenship. The unit investigates a common problem around schools – parking. The students do observational fieldwork, which leads to a simple decision-making exercise about improving the quality of their school environment. Students learn the meaning of the words: traffic, survey, busy, quiet, street, parking, yellow lines, pedestrian crossing, council offices, cycle way, pavement, and frequency. They will also be using the following resources: fieldwork visits, photographs of the local area, simple graphing software and spreadsheet, and street plans. A more in depth discussion of this example lesson is include in Appendix F.

*2.7.2 School Assemblies*

Integrating safer routes to school information into assemblies is another method to educate and motivate students about school travel. Assemblies can involve headteachers, education and transport officials, and or traffic wardens talking to the children about topics such as road, pedestrian, and cycling safety, prevention of air pollution, or health benefits and importance of walking and cycling (Pack 30/3/00).

*2.7.3 Motivational Projects and Initiatives*

In addition to educational initiatives aimed at students, schools can sponsor projects to motivate students and the community. For example, sponsoring a competition for students to design a "safe routes to school," logo to be used on posters, shirts, etc., creates publicity for the school while also giving the students ownership of a small part of

the school travel plan (A Safer Journey to School 12). Students could also build a model of the school to display in a town building where community residents can offer suggestions for improvements to the infrastructure around the school (10). Other motivational initiatives include newsletters, posters, and bulletin boards showing children's work about routes to school initiatives to inform the wider community of the project. Another way school can gain publicity for a project is to enlist the help of local newspapers to run stories about school transport projects (12).

*2.7.4 Road Safety Training*

To improve the safety of children, schools may encouage road safety training programs. Road safety training teaches the proper techniques that pedestrians and cyclists should use when travelling. The DETR recommends safety training in its manual, *School Travel Strategies and Plans: Best Practised Guide for Local Authorities,* based on the idea that safety training not only increases the safety of students through their education, but also allows the students' parents to feel more secure when letting their children walk or cycle to school (DETR 36).

Training courses should be individually structured for each school and take into account students' ages, abilities, and the geography around the school. Classroom-based and on-road training are both important because with them, parents and children can experience hands-on the dangers involved with cycling and walking (36).

## 2.8 Traffic Congestion

Infrastructure changes, travel initiatives, and education programmes all contribute to the ultimate goals of increasing safety and decreasing traffic congestion. In order to reduce traffic congestion around schools as efficiently as possible, it is also useful to understand the nature of traffic congestion and the steps that have been taken by other

communities around the world to address the issue. As Levinson points out, traffic congestion is not only a modern problem; it has existed for over 2000 years (2). Traffic congestion develops when travel demand outpaces the development of transport systems. Whether by horse and buggy, streetcar, or automobile, when large numbers of people must get from one place to another, traffic congestion may occur (3).

Traffic congestion can be divided into two categories: recurring and nonrecurring. Recurring traffic congestion includes the delays commuters encounter each morning and afternoon during rush hour, or the congestion around beaches during the summer. Nonrecurring congestion is due to factors such as road construction or accidents (2).

Very little can be done to eliminate nonrecurring congestion because it is unpredictable. However, much has been done to improve recurring congestion. Modern recurring congestion was first dealt with in the 1930s and 1940s when the large numbers of automobiles began to make city traffic unbearable. Interactions at uncontrolled intersections between streetcars, horse drawn carriages, automobiles, and trucks led to long delays and gridlock (5). During the 1930s and 1940s, several traffic control measures were put into wide use. New York, for example, introduced one-way, north-south roads. Changing only the direction of travel drastically improved New York's traffic situation; transport delays travelling north to south decreased 22 percent, cross town (east-west) travel times were reduced by 40 percent, and pedestrian accidents decreased 20 percent (8).

Changes such as those implemented in New York, combined with the introduction of the freeway system, solved many cities' problems until the late 1970s. As the number of automobiles increased further in the 1970s and 80s, travel delays increased again.

Between 1940 and 1970, travel delays occurred less in downtown areas and more in surrounding suburban areas (10).

To address increased traffic volume, Levinson recommends changes to the existing infrastructure combined with an expansion of mass transit systems. Suggested areas for improvement include: transport management (e.g., signal co-ordination, left-right turn restriction, and limited access to roadways), the elimination of bottlenecks, policies to locate future development near mass transit lines, and the development of pedestrian friendly roadways (11).

## 2.9 Case Studies

A good resource for any type of development project is a case study of similar efforts from the past. By evaluating traffic planning and management efforts that have been completed in other areas, planners can use past failures and successes as a guide for future planning. Below are a few case studies that are relevant to the development of school travel plans in Merton.

### *2.9.1 Traffic Planning in Long Beach, California (USA)*

Traffic planners in Long Beach were overwhelmed in the latter part of 1991 with the task of bringing neighbourhood cut through traffic under control.[1] After the city's engineer and public works department considered the problem, a list of 23 neighbourhoods in need of modifications was compiled. Next, planners compiled a "tool box" of possible alterations to roads. These ranged from "children at play" signs to closing entire streets. An evaluation of all alternatives followed, using a set of criteria developed by consulting various stakeholders. Once a toolbox of changes was established, planners sought a way of involving the community in the rest of the planning

[1] Neighborhood cut through traffic is use of residential neighborhoods as shortcuts.

process. Community involvement was deemed necessary because planners had discovered from past experience that plans developed without community involvement often failed due to lack of acceptance (Cline 35).

Community involvement was integrated into the city's plan on a variety of levels. The planning process began with a "kick off" meeting for each neighbourhood. At these meetings, planners elicited the help of the community to form steering committees. These steering committees were responsible for representing the neighbourhood in meetings, and in some cases even collecting data. Once formed, steering committees held monthly lunch meetings with planners to discuss technical aspects of the project and give them feedback from the neighbourhood (35).

In addition to guiding the planning process, steering committees were useful when the final presentation of the proposal was made to the entire community. In general, planners expect complaints at such meetings; however, because the community was involved in the process since its inception, very few complaints arose. When complaints did arise, steering committee members defended the plans as the choices of the people who represented the neighbourhood (39).

The design of the plan proceeded smoothly, and almost all proposed initiatives were accepted. However, the implementation process was largely unsuccessful. Cline and Mohaddes found two reasons for implementation problems. First, the proposal accepted by the city was worded such that petitions were needed for many of the proposed changes. The petitioning process did not go smoothly, and city officials had a difficult time finding community members to do the job. Second, this lack of community involvement meant that planners had to use their own time to conduct studies (40).

*2.9.2 Traffic Management in Tucson, Arizona (USA)*

In 1991, Tucson, Arizona developed neighbourhood traffic plans using a consultation process similar to that of Long Beach. Tucson elicited requests for street changes from individual neighbourhoods. The neighbourhood residents were responsible for creating a petition for specific changes and receiving the signatures of at least 60 percent of the community. If a request included the necessary 60 percent of the city, then a Traffic Advisory Committee, consisting of concerned residents who would act as liaisons between the city and the neighbourhoods, was established. This process was similar to the approach of Long Beach in that it relies on community involvement. Two Tucson planning officials, Catalano and Schoen, recall that projects conducted prior to this community consultation process failed (22).

*2.9.3 Traffic Management in Santa Ana, California (USA)*

Like Long Beach and Tucson, Santa Ana has recently (1995) developed new strategies for designing neighbourhood traffic plans to combat cut through traffic. In *Developing Successful Neighbourhood Traffic Plans*, Ruth Smith and T.C. Sutaria lay out their suggestions for a neighbourhood traffic planning methodology based on their planning experience in Santa Ana (28). The plan consists of thirteen steps that guided the city through the planning process; the entire process is detailed in Appendix G (31). In general, the plan involves receiving and acting on requests from neighbourhoods concerning cut through traffic. First, a resident must inform the city of a problem; then the city investigates the problem and sets up a committee, made up of residents and traffic engineers, if the problem has been found to exist. The committee is then responsible for balloting the entire neighbourhood to establish if there is enough support for investigating changes. If there is such support, the committee formulates a plan for

addressing the problem that is then presented to the city officials for approval. If the plan is approved, it is implemented on a trial basis for a period of six months. During this period, any changes made to the neighbourhood are designed to be as removable as possible; for example, medians are painted on the road rather than being raised, and curbs are built out of easily removable and recyclable asphalt rather than concrete, which is more difficult to remove (30). Finally, the city performs another study of residents to determine if the changes should be removed or made permanent.

The city of Santa Ana has found that this process has helped the city avoid implementing unpopular plans or becoming involved in legal trouble, as it had when using a methodology relying on less community involvement (29). Because the community had a voice in developing travel plans, dissension between residents was reduced, the city experienced a greater degree of co-operation with residents, and traffic plans were more successful.

*2.9.4 School Travel Plans in Hertfordshire County*

Hertfordshire County began a "Safe Routes to School" project in 1996, with two of its schools participating in a pilot project. The two schools, Sandringham and Wheatfields schools, are secondary and primary schools, respectively, and are in close proximity to each other. The schools are located in the heart of the community, and the catchment area is made up of affluent suburbs; 64% of the students live within two miles of the school (DETR Case Studies Report 86).

*2.9.4.1 Sandringham Secondary School, St Albans*

Sandringham Secondary School contained 1062 students of mixed gender, from age eleven to eighteen. At the start of the project in 1996, 35% of the pupils walked, 2% cycled, 20% took the bus, and 40% were driven. After two years of developing several

school travel initiatives and programmes, 47% of the pupils walked to school, 5% cycled, 20% took the bus, and 28% were driven (86).

Sandringham was faced with a traffic problem outside of the school, and this caused danger to students wanting to cross the roads by the school. The school's travel planning committee developed programmes that involved travel initiatives, curriculum work, project promotion, new cycle storage facilities, safe route measures, and bus services. These programmes and effective consultation with the local authority and community have resulted in school travel plans that have been jointly developed by both the school and neighbouring stakeholders (88).

In regard to curricular work, the county has produced a green transport education resource for key stages one to four. The school has devised an optional course module containing sessions that cover how to influence public attitudes, health and road safety issues, and the work of the school's safe routes to school working party (87). The module is now in its fourth year, and claims to be "an excellent way of influencing how pupils travel to school" (87).

The school installed two new cycle storage units, sited so that they are visible for safety and promotional reasons. The units are popular with the students and have been partly responsible for the doubling of cycling to school. Both the county and the school provided funding for these units (87).

In aims to make the area around the school and routes to school safer, several safety measures have been installed. These include a school safety zone and gateway signs; cycle lanes with contra flow restrictions at school opening and closing times; new crossings; traffic calming measures; new footways; a bus shelter; and a new bus parking lay-by to give priority to buses (88). The county provided funds for these improvements.

Four school buses serve pupils of the school from the surrounding villages, and they are free for students living more than three miles from the school. The council established new local services for students who live closer to both Sandringham and Wheatfields schools (89). Pupils were surveyed to determine where they lived and what routes they took to school, and from this information, routes were established using a geographical information system. The bus system developed for Sandringham has an "X-files" theme, and has had no adverse effects to public buses (89).

Through the implementation process, the planning committee found that setting up local decision making processes and encouraging local ownership are vital (90). Having gone through the implementation process, the school realises that schemes need to be interesting and provide opportunities for local people and pupils to participate. The programmes require time to develop, and future transport plans and objectives are key. There should be a full-time project officer working with the developments who is enthused and committed to bringing the programme forward. At the same time, local authorities must look at their policies, to ensure that none are working against the project (90). Below is a timeline of the developments of Sandringham's school travel plans thus far:

April 1996 - Approached pilot schools and convinced them of the benefits. Issued questionnaires to schools.

August 1996 - Analysed questionnaires and gathered data.

Sept to Dec 1996 - Parental questionnaires set up working group, curriculum work in school.

Jan to Feb 1997 - Developed detailed designs in schools.

May 1997 - Public consultation and exhibition continued to develop designs.

July to Aug 1997 - Implementation of physical features, cycle training, cycle sheds.

Sept to Dec 1997 - Started new bus routes, developed school transport plan.

Jan to Feb 1998 - Walking bus, escorted bus service, and safe houses established.

Mar to July 1998 - Further safety improvements, walking bus started.

July 1998 - Monitoring, continued to develop project. (90-91)

Individual school travel plans reinforce the message that schools discourage car journeys to their sites. Sandringham School plans to set up a car-sharing database, extend cycle parking (subject to demand), and possibly change school access to improve safety in the future (91). There have been no school journey accidents around this school area since the beginning of the school travel plan developments (Kerridge 11/4/00).

*2.9.4.2 Wheatfields Junior School, St Albans*

Wheatfields School contained 370 students of mixed gender of age seven to eleven. At the start of the project in 1996, 53% of the pupils walked, 0% cycled, 3% took the bus, and 44% were driven. After two years of developing several school travel initiatives and programmes, 69% of the pupils walked, 2% cycled, 8% took the bus, and 21% were driven (108).

Wheatfields is located at the end of a cul-de-sac and is part of a larger campus including a nursery, an infant school, and a middle school. The catchment area primarily consists of suburban housing, with a few pupils travelling from outlying villages (108). The catchment area has high levels of car ownership, with 60% of school families owning at least two cars. At the start of the project, 44% of the pupils were driven to school, although 89% of them lived within a mile of the campus (108).

Parents reported that traffic problems outside of the school were "horrendous". Cars were being blocked in, turning on grass, and blocking driveways. Parents and staff thought car use was increasing each year, yet parents continued to drive short distances to

bring their children to school. Survey results showed that only 11% of students wanted to travel by car; 85% said they would prefer to walk or cycle to school (109).

The decrease in car usage has been largely due to actively encouraging non-car journeys; co-ordinating the walking bus initiative; and the school drawing up its own school travel plan. Over six months in 1998, the walking bus received national media coverage and the school added further routes. Consequently, car journeys to the school have continued to decline (108).

Wheatfields School has used transport guides to develop their own school travel plan, which is distributed to all parents new to the school. This plan includes:

- A long term vision for the school;
- The benefits it will bring;
- Curriculum issues;
- The role of the parents; and
- Measures to encourage alternatives to the car (109).

The plan also sets targets for future developments and processes for monitoring the existing travel plans. The neighbouring infant school is now considering a similar school travel plan (114).

The safe routes and effective consultation measures used by Sandringham School are also used by Wheatfields School. The development of the neighbouring school area had been performed with consideration of the school, local community, and county council to ensure extensive ownership of the plans. The next initiative will be a safe house scheme, developed in consultation with the police. The school will tell pupils where they can go in case of an emergency, such as other pupils' homes or local shops (114).

# 3.0 Methodology

The borough of Merton selected six schools, based on their interest in developing school travel plans, on which to focus this project. Among the six schools, four were first schools including students ages 4 through 7, one was a middle school with students ages 8 through 11, and one was a high school with students ages 12 through 16. Bishop Gilpin, Wimbledon Park, Hatfield, and Hollymount are the four first schools; they have 223, 201, 234, and 181 students, respectively; nursery students were not included in this study. Park House is a middle school containing 476 students, and Ricards Lodge is an all girls' high school with 823 students attending. Bishop Gilpin, Wimbledon Park, Park House, and Ricards Lodge are located in the community of Wimbledon, while Hatfield and Hollymount are situated in the community of Morden; refer to Appendix A for a map showing each school's specific location within the borough.

Faced with increased traffic congestion around schools and throughout the borough, Merton is seeking to increase the number of students using sustainable transport methods for their journey to school. At the same time, Merton also wishes to make school routes safer for children. The objective of our project was to initiate the development of school travel plans in support of Merton's long-term goal, to aim for sustainable development. To meet this objective and help Merton strive for this ultimate goal, we adopted a methodology that is often used by transport planners. In the following sections, we present the methods we used to develop school travel plans for the six schools mentioned above.

## 3.1 Background Research

The first step in our methodology was to conduct background research. Useful background information from outside source material included transport, curricular, and safety initiatives. These initiatives provided us with various alternatives for school travel plan solutions. Further information was obtained about data collection techniques, and this was used to acquire accurate and appropriate results from each stakeholder.

## 3.2 Observation of Schools

The next step in our methodology was to observe the areas around each school. We felt the best way to gain insight into the traffic situation was to observe the area around each school multiple times, both during the arrival and the dismissal of students. Our observations of the schools focused on three areas: existing infrastructure, pedestrian/driver interaction, and traffic and pedestrian volumes.

We used our observations of existing infrastructure to create a map of the area around each school. Maps are easy to understand and provide a method of visualising the current situations at each school. Maps also serve to demonstrate what any improvements to the area would look like. Our maps included school entrances, parking spaces, crossing points and traffic calming measures.

In addition to constructing maps, we also evaluated the actions of pedestrians and motorists in certain locations around each school. Areas evaluated were chosen for one of two reasons: either stakeholders identified the areas as dangerous, or we concluded from initial observation that the areas were dangerous. These potentially dangerous locations included intersections, school entrances, "no parking" areas, traffic calming measures, and crossing points. We observed crossing points to determine whether people utilised them, yellow zigzag "no parking" zones to determine if school parking policies

were followed, and the behaviour of motorists and pedestrians around traffic calming measures, such as zebra crossings, to determine if existing traffic calming measures were helping or hurting the traffic problem.

Finally, observations included counts of pedestrians and traffic at busy intersections and crossings. We took traffic and pedestrian counts during the busiest time periods, while the students were arriving to or leaving school; the actual times differed between schools. These times and locations were chosen because of headteacher and parental concerns or because the areas appeared dangerous. Refer to Table 3.1 for specific conditions of the counts. Traffic counts were used to get quantitative data for traffic flows. Each school believed that certain roads near their school were particularly busy, but to determine which areas are most in need of traffic calming measures, busy roads were ranked against each other. Pedestrian counts were also important in establishing the placement of any infrastructure changes. For example, a school may have an extremely busy road nearby, but if students do not cross that road regularly, it may be more important to make changes to a less busy road that has more pedestrian crossings.

**Table 3. 1:** Locations, time, and conditions for traffic and pedestrian counts taken at each school.

| School(s) | Place | Date | Time | Weather |
|---|---|---|---|---|
| RL, PH, BG | Crossing point on Leopold Rd. | 3-Apr | 15:15 -15:45 | cloudy/light rain ~42 F |
| RL, PH, BG | Lake Road – Ricards Rd. | 28-Mar | 8:34 - 9:04 | cloudy/windy ~40 F |
| HF | Lower Morden Lane | 7-Apr | 8:45 - 9:07 | low clouds ~40 F |
| HF | Zebra crossing on Hillcross | 7-Apr | 8:45- 9:02 | low clouds ~40 F |
| HF | Lower Morden Lane | 6-Apr | 14:55 -15:30 | cloudy/showers ~40 F |
| WP | Zebra crossing on Durnsford Rd. | 7-Apr | 15:10 - 15:30 | sunny ~60 F |
| HM | Pepys Rd. | 10-Apr | 15:05-15:30 | partly cloudy ~58 F |
| HM | Cambridge Rd. | 10-Apr | 15:05-15:30 | partly cloudy ~58 F |

## 3.3 Consultation with Stakeholders

In addition to making observations around school areas, we also consulted with stakeholders in order to obtain their opinions about the problems of school travel. To collect data from borough officials, headteachers, school governors, students, and parents, we used three different consultation techniques: interviews, surveys, and focus groups. The consultation technique for each group of stakeholders was chosen according to what type of information we needed, as well as feasibility. Data collection involved not simply compiling a set of facts, but determining the underlying opinions of the stakeholders. Officials, such as those working for the borough or the schools, were interviewed, students were surveyed, and parents were surveyed, interviewed, and/or asked to participate in a focus group.

### *3.3.1 Borough Officials*

We interviewed borough officials because they were familiar with transport, education, and safety planning polices unique to the borough of Merton. We chose interviews because of the specific information we needed from them. The borough officials included our two liaisons, Pete Thomas, transport planning principal engineer, and Eddy Taylor, an environmental education officer. From them, we solicited specific recommendations for the focus of the project. Pete Thomas was able to give us useful information on traffic planning measures and referred us to others in the transport department who could assist us with the project. We consulted Eddy Taylor to acquire specific information on educational programs and the new education curriculum. We interviewed Chris Braidwood, safety education officer, to learn about the process required to implement a walking bus programme. Pat Dunkley, senior safety education officer, was interviewed so we could gain knowledge about possible safety initiatives that

could be implemented into the school curriculum. These borough officials were chosen because of their knowledge of the borough's policies, and can serve as future contacts for the school as the development of the school travel plans continue.

*3.3.2 Headteachers and Governors*

We used interviews to obtain information from headteachers and governors, as well as to inform them about our role in the development of the travel plans. These interviews were semi-standardised, meaning that we asked a pre-defined list of questions, but the interviews remained flexible to allow a variety of answers, comments, and suggestions. Refer to Appendix I for the list of questions we used during these interviews.

Interviews with headteachers and governors enabled us to gain insight into the problems children experience on their way to school and possibly suggest solutions for them. Headteachers are aware of these problems because they are familiar with the area and interact with the children on a daily basis. We also conducted interviews with the headteachers to determine if there were any policies that would limit school travel plans.

Besides learning about school policy, we were able to form a working relationship with the headteacher or a governor of each school and determine their interest level in and expectations for the travel plans through an interview. The school travel plans were suited to each school's particular interests; therefore, the input of the headteacher was necessary. It was also possible to obtain information about the governing body and PTA of the school from the headteachers. These groups are important in further development and sustenance of the plans.

*3.3.3 Students*

Unlike our consultation with the school officials, it was not efficient to gather information from children via interviews, as there are over 2,100 children in the schools represented in this study. Furthermore, many of these students were too young to answer complex questions. Therefore, a simple survey was developed in order to obtain current data on how children are getting to school. Survey questions included: age, gender, distance lived from school, transport method to school, why they choose that method, and how they would like to travel to school.

Because the survey was short, we were able to include every child in the sample population, instead of relying on random sampling to obtain our data. To ensure a high response rate, we surveyed high school and middle school students in the classroom, and sent surveys home with the first school students as a homework assignment. In addition to ensuring a high response rate, sending surveys home with first school students also allowed parents to assist students on questions they were unsure of. Older students, on the other hand, were judged to not need parental assistance.

All schools, except Ricards Lodge, received the same half page survey located in Appendix L; the question asking gender was eliminated from the Ricards Lodge survey because no males attend this school. We added a question asking whether students have experienced a fright during their school travels, in place of the gender question. Ricards Lodge students were also asked to complete a second half page survey concerning the establishment of bus routes. Information pertaining to bus routes was included because a teacher governor at Ricards Lodge is involved in setting up a bus program for the school. Students were asked to indicate the bus number, where they currently got on and off the public bus, and their street address, to help us establish the best routes for buses to

follow. We also asked students for their opinions on the current transport situation and suggestions for improvements, because these older students would likely have the perspective to give relevant information in these areas. The addendum to the Ricards Lodge survey is found in Appendix L.

After distributing and collecting all surveys, we entered responses into Microsoft Access, which allowed us to analyse the large amount a data associated with over two thousand surveys. Microsoft Access was also used to record responses to parent surveys.

*3.3.4 Parents*

Parents are a valuable resource for the development of school travel plans because many are concerned with issues regarding their child's school. By allowing parents to share their concerns and suggestions, we were able to consider their needs and those of their children when developing school travel plans. Parental feedback was key because they are familiar with their child's school route and, therefore, are likely to know where problems lie. Consultation with parents also would help to give parents ownership of the final plan. This is important because for a travel plan to work, it has to be well received by all the stakeholders, and people are more likely to accept a plan of which they were a part.

We consulted parents from five of the six schools involved in our project. We chose to survey parents from the four first schools, Bishop Gilpin, Wimbledon Park, Hatfield, and Hollymount. We also conducted a focus group with parents from Bishop Gilpin, which included parents who also had children at Park House. Parents from Ricards Lodge were not consulted because we felt high school students were largely responsible for their own transport choices.

We chose to use surveys because they allowed us to gather information from a large sample population. Where possible, we sent parent surveys home with children, attached to the student surveys. Because students were required to complete their portion as part of a homework assignment, we expected that a large percentage of parents would also return their surveys.

The questions we included on the parent surveys were close-ended, with yes and no answer options, but also provided space to explain answers and concerns. Questions on the survey asked parents to:

- Identify problems with school routes;
- Suggest for changes to current school routes;
- Identify which travel initiatives they would use;
- Explain if there is a specific reason why their child travels to school the way they do;
- Tell us if they would allow their child to use cycling or walking bus initiatives; and
- Let us know if they would be willing to participate in organising a travel initiative.

Complete parent surveys can be found in Appendix M. Data from parent surveys helped us learn what the parents themselves were willing to accept and what they wanted to see changed. Their interest in volunteering could also allow the school to organise a committee that would take charge of the travel plan program after we left.

We also interviewed parents who were particularly interested in taking a role of setting up school travel initiatives at their children's school. We chose to interview these parents because they have an active role in the school through its PTA or governing body and are willing to volunteer their time to starting their projects. We interviewed Maria Halpin, a parent in Hollymount School's PTA, and Karen Darby, an active parent of students at the Park House School. From these interviews, it was possible to learn about the concerns of parents, suggestions for improving school routes, and ideas for the successful implementation of travel plans for their children's school.

In addition to surveys, we used a focus group to consult with parents from Bishop Gilpin and Park House. The focus group was set up with Bishop Gilpin parents, and two of the four attending parents had children at Park House as well. The focus group was held in the morning after parents had dropped their children off. During the focus group, we were able to ask questions that expanded on the answers obtained from the surveys returned to us. In particular, we asked parents for their opinions and suggestions about transport and safety initiatives and about the school's proposed walking bus system. We did not hold focus groups with the other four schools due to time constraints; headteachers could not set up meetings with parents before the Easter holiday (14 April through 4 May).

## 3.4 Data Analysis

The process of data analysis requires the information that we have obtained through background research, observation, and consultation with the stakeholders, to be reviewed with respect to a set of criteria, in order to help us formulate our suggestions for school travel plans to each school. This set of criteria was established by regulatory factors, such as laws regarding traffic calming measures and the feasibility and practicality of suggestions. We did not recommend initiatives that were impractical; however, we did suggest initiatives that may not be covered by Merton's current budget, because the initiatives could be undertaken if additional funding becomes available.

We reviewed a list of alternative travel methods, education programmes, and infrastructure improvements developed for each school through our background research. We used background research and consultation with stakeholders to determine which alternatives would best suit each school. We also gave significant consideration to what the schools wanted to do to change their current school travel situation. As part of our

consultation process, we obtained further ideas about what headteachers, parents, and students would like to see done to improve the traffic and safety situations in their communities. It was important to learn how the children wanted to get to and from school, since their interest is key to the success of a school travel plan. The willingness of the parents to change their travel habits was also a consideration when determining which travel initiatives to recommend.

For example, when we considered recommending a walking bus, we looked at information from background research, consultation with headteachers, as well as student and parent surveys. Both headteachers and the DETR's publication on safer school journeys, *School Travel Strategies and Plans,* suggested that older students might not accept the idea of travelling to school wearing a bright vest under the supervision of parents. The student survey results told us how many of the students were interested in walking and how far they lived from school. The parent surveys (which were sent home with children in the primary schools) enabled us to determine where the students live, if the parents were interested in a walking bus, and what parents wanted to participate in a walking bus system.

The same process was followed when considering other alternatives for travel initiatives. We looked into each of the student surveys to determine students' current travel methods to school, how far they lived from the school, and how they would like to travel to school. Based on the numbers of those who drove and how many of them wanted to use a more sustainable means of transport, we formulated recommendations.

For choosing infrastructure improvements, our process was similar. We based our analysis on observations of each school, suggestions from the headteachers and parents, and consultation with borough officials. From our background research into

traffic calming measures, as well as our observations in Hertfordshire county of schools with existing infrastructure improvement systems, and observations of the schools involved in our project, we suggested changes to address parent and headteacher safety concerns.

As with travel initiatives, the age of students was the primary concern when choosing educational initiatives to recommend. To build the list of alternative educational initiatives, we consulted borough officials who provided information on the National Curriculum, which Merton bases its education system on. Knowing the age of students and having researched alternative educational programmes, we were able to recommend specific education programmes for each school in our project.

In addition to integration into the curriculum, we also examined ways for schools to educate children about school travel through assemblies, surveying of school areas, or borough-wide slogan competitions. We recommended such programs based on each school's interest in these programs.

In addition to educating the children of each school, we also looked for ways to educate their parents. We looked for ways of presenting information from our project, as well as suggestions for simple things parents could do to help. We evaluated the ways this could be done, and based on suggestions from headteachers and parents themselves, decided upon methods for relaying these messages.

In addition to looking for initiatives, improvements, and changes, we sought a way of presenting all of this information to each school. A summary of the schools' problems, steps they can follow to initiate the development of the proposed initiatives, and methods by which they can monitor the success of the plans were included in school travel plans delivered to each school.

## 3.5 School Travel Plan Template

Because this project involved six different schools, we developed a template to efficiently present the data and recommendations to each school. The document was formatted to be as user-friendly as possible. The template was modelled after recommendations from: the DETR School Travel planning book and the Safe Routes to School, The Gilberd School and Highwoods Primary School case study book, as well as structured to accommodate our data analysis and recommendations. Through the analysis of data obtained from observations, consultation with the stakeholders, and background research, we filled in the template for each of the six schools to create each individual school travel plan. The following is the template for our school travel plans.

**Description of School**
- Demographics of the school
- Description of its area
- Map of the school's location within the borough
- Description of school catchment area
- Access arrangements (school entrances)
- Existing pedestrian and cycle facilities

**Policies Influencing School Travel Plan**
- Current local and national government policies
- Local policies and initiatives
- School policies

**Objectives of School Travel Plan**
- Primary focus
  - primary school transport, safety, and educational initiatives
- Secondary focuses
  - secondary initiative programs
- Benefits of school travel plan
  - for students
  - for parents
  - for school staff
  - for the borough

**Results from Data Collection**

- Observation Results
  - map of area with existing and proposed traffic calming measures
  - pedestrian/driver interaction analysis
  - traffic situation
  - pedestrian/traffic counts
- Student Survey Results
  - current travel method
  - reason for travel method
  - favoured travel method
  - correlations
  - bus routes (only Ricards Lodge)
  - street names (only for travel routes such as a walking bus)
- Parent Survey, Interview, or Focus Group Results
  - problems on school journey (intersections, crossings, etc.)
  - reasons for current travel method of child
  - suggestions for initiatives
  - volunteers for running/setting up travel initiatives

**Initiatives**

- Safety
  - traffic calming measures
  - intersection/ crossing improvements
  - cycle path/ pavement improvements
  - signs
- Transport
  - walking/ walking bus
  - cycle
  - public transport
  - school bus
- Education
  - curriculum
  - assemblies
  - motivational projects
- Outline of steps for each proposed initiative
  - Merton's responsibility
  - school's responsibility
  - parent's responsibility
  - children's responsibilities

**Implementation**

- Timeline
- Cost/funding source
- Identification of champions or committees to move proposed plans forward
  - target goals set by school

**Evaluation**

- Goals
- Monitoring process
- Updating and revising

We completed all sections of this travel plan except those concerning the timeline for implementing our recommendations, sources of funding, finding a champion, and setting goals. These uncompleted sections are best completed, with the help of our recommendations.

# 4.0 Results and Analysis

We analysed our data with the purpose of developing recommendations for three sections of a school travel plan – educational programmes, infrastructure improvements, and transport initiatives. We analysed the information we have gathered through surveys, interviews, focus groups, and observations in order to make specific school travel recommendations to the six schools in this study.

# 4.1 Education Initiatives

Education is an important part of an effective school travel plan. Through education, it is possible to inform children and their parents about the importance of sustainable school travel. Establishing an awareness of transport problems and ways to improves these problems among students and parents is essential to changing existing attitudes and actions.

In general, educational programs aim to convey the importance of health, safety, and sustainable transport to stakeholders. In analysing educational alternatives, our aim was to determine which of these programs could best transmit these messages to students at particular learning levels and to their parents. We obtained curricular information and suggestions from documented material and comments provided to us by borough and school officials. Each programme we recommend is targeted at a different age level; in particular, suggestions dealing with the curriculum are based on the key stages that the students are in.

There are four key stages covering the ages between reception and sixteen years. Key stage one includes students from their reception year, when they are generally five, until they are seven; key stage two, covers ages eight until eleven; key stage three, twelve to fourteen; and key stage four from fourteen until sixteen. Refer to Appendix E for

further information regarding key stages one and two. This section is divided into cross-curricular initiatives and extra-curricular programmes for the students, as well as a separate section for parents.

*4.1.1 Cross-curricular Initiatives*

As with many curricular activities, the integration of educational initiatives is mostly dependent upon learning levels. Eddy Taylor, our liaison in the Merton education department, advised us that in order to implement school travel into the curriculum, we should focus primarily on the Geography and Personal, Social and Health Education (PSHE) sections of key stages one and two.

*4.1.1.1 Geography and PSHE Lessons*

Geography and PSHE sections of the curriculum can incorporate school travel in a cross-curricular manner. Writing and design assignments are possible ways to include school travel in class work. There are also sample lessons included in a National Curriculum guide, which can help teachers plan the organisation of teaching school travel-related material. First school students, for example, are in key stage one development within the curriculum, and therefore their lesson plans are structured around this stage level. Some lesson plans teachers would follow may include developing the understanding of the relationship between people and the environment or developing geographical skills through observing the area outside the school and constructing maps. Incorporating school travel into coursework in a cross-curricular fashion develops key concepts without consuming much class time.

Headteachers are interested in integrating school travel education into the curriculum, as there is very little time to dedicate an entire course to the issue of school travel. June Pack, the Headteacher of Wimbledon Park First School, said design

competitions, assemblies, and adaptations of transport alternatives into Geography and PSHE are excellent ways to encourage children to think about travel and to influence "good citizenship". Interactive and fun courses tend to motivate children and hold their interest about the topic at hand (Pack 30/3/00). Currently, Wimbledon Park is an Eco-school, meaning that students have been involved in establishing programmes to help the environment, including recycling and conserving energy. Alternatives to influencing children about school travel are similar in the sense that the students need to be encouraged and motivated to change their views and actions.

*4.1.1.2 Safety Training Programmes*

Safety training programmes are suitable for students in all school levels and can also be integrated into the curriculum. Outside officials such as Pat Dunkley, the Principal Accident Analysis and Prevention Officer, can also contribute to these lessons by coming into the schools and discussing proper techniques and important factors involved with road safety. Miss Dunkley has written educational information guides for teachers that suggest ways road safety can be integrated into curriculum coursework. These contain structured lessons and modules according to key stages and year levels.

It is important for children at the first school level to develop road skills so that they are safety conscious in the future. Training programmes, however, do not necessarily need to focus on road safety. Other focuses include caring for the environment and educating children about the danger of strangers. Such training can instruct children on what to do in certain challenging situations.

*4.1.1.3 Cycle Training Programmes*

Cycle training is an appropriate lesson within coursework for all of the schools in this study, since cycling proved to be a highly desired alternate method of travel over the

automobile, as shown by the student surveys. Through this training, students could learn cycle safety and proper techniques on cycle use and maintenance. There are also a variety of other training programmes, which may involve travel conduct or stranger awareness, that can be incorporated into safe routes to school initiatives, which can aid in to a students' knowledge and well being.

*4.1.1.4 Traffic and Land Surveying*

Traffic surveying of the area and the development of Information Technology (IT) skills to analyse survey results is also a way of incorporating transport knowledge into the curriculum. This type of work was done by older students at the Sandringham School in St Albans, and can be incorporated into Geography or be a project independent from course work. Students can use their developed understanding of computers with other school applications as well.

Another helpful educational initiative involving the students could be surveying the children at the school yearly to determine whether the travel plans initiated at these schools have been successful. This survey would be similar to the one we used to collect our data, in that it would inquire about the students' current travel method to school, why they choose this method, the distance they live from school, and which method they prefer to take.

'Out-of-class' land surveying around the school is also an appealing educational initiative for students. Hands on work including observation, analysis, and evaluation is an interesting way for students to learn about the safety around their school and possibly be able to recommend ways the area can be made safer and more pedestrian-friendly. Informational Technology (IT) work can be incorporated into this type of surveying, as well and allow students to develop these skills in this way.

*4.1.2 Extra-Curricular Programmes*

The programmes discussed in this section are those that could be focused outside of curricular classroom work. Most can be incorporated during school times, but are not related to course lesson plans.

*4.1.2.1 Design Competitions*

Karen Darby, a parent of students at Park House Middle School, recommended a specific way that safety awareness could be integrated into the students' educational programmes. This idea is to have a poster competition in which every student in the borough designs a logo with a theme such as "go green – walk to school" or "parking in the zigzag is unsafe." The winners could have their designs displayed outside every school in the borough and this could be a means of influencing the students and their parents to be safe and consider sustainable travel as a healthy alternative. Ms. Darby has contacted estate agents and found a high level of interest in sponsoring such a competition. This yearly competition could have four winners from schools throughout the borough, and these students could be awarded with prizes. The winning logos could be displayed quarterly on existing posts outside of every school. This event can heighten the awareness of safe and sustainable travel to a large audience and incorporates fun, motivation, and creativity for the students.

*4.1.2.2 Assemblies*

An assembly is another programme, which first schools can use to relate school transport and education. A basic theme, such as "walking or cycling to school is fun," can influence and encourage younger students to consider methods of school transport other than the car. A more advanced theme, such as "healthy transport" or "safety on the school route" can be used with older students. Special guests, such as a traffic officer,

education official, or transport official can lead the assembly and captivate the audience with their knowledge and enthusiasm.

How young children get to and from school is primarily up to their parents. Even so, motivating children to use sustainable forms of transport may also motivate parents, through the interest of their children. Assemblies have been held at the Wimbledon Park first school on the subject of energy conservation, and children, in turn, have since asked their parents to turn off lights in their homes (Pack 30/3/00).

*4.1.2.3 Field Trips*

Students can become more aware of their health and how to remain fit by visiting a health or exercise facility, for instance, where someone can inform them about the important relation between health maintenance and school travel. Field trips could be beneficial to education about sustainable school travel if students went to a museum or exhibit relating to the environment. By learning about the planet, its system balance, and limitations, students may think twice about wanting to get a lift to school. Field trips are a way to incorporate learning through personal experience into something fun and exciting. Children, especially at a young age, enjoy getting out of the classroom and experiencing new things.

*4.1.2.4 Theatre Productions*

Through our visit to the Sandringham Secondary School in St Albans, we have also learned that theatre-in-education productions and writing projects have had an impact on the way that school travel plans have progressed at that school. A play with a transport theme was performed at the Sandringham Secondary School and was successful, as it complemented the school travel plans established at the school. Bill Kerridge, Campus Manager at the Sandringham School, said the students enjoyed

themselves through this interactive, educational experience. Not only was this an educational initiative for the students, but it was for the parents in the audience as well (Kerridge 11/4/00).

*4.1.2.5 Motivational Activities*

Aside from implementing educational initiatives, it is also encouraging to offer students awards and prizes for doing well and taking part in school travel plans. Points can be tallied and awards can include such things as participation in a school dance or ice cream party. Each of the schools we worked with have such events that the PTAs organise. These are motivating factors that are easy ways by which praise can be given to students for taking part in sustainable travel programmes; they also encourage more students to want to take part in such activities and programmes. A parent we spoke with, who volunteered for the Wheatfields Junior School walking bus in St Albans, said the children enjoy walking and are excited to receive laudatory participation stickers.

*4.1.2.6 Eco-Schools Award Scheme*

The Eco-Schools award scheme is a straightforward and flexible way schools can extend environmental lessons outside the classroom and apply them to day-to-day running of the school (Tidy Britiain Group 1997). It involves all members of the school working together to improve the school's environmental performance. Many young people care deeply about environmental issues; by extending the awareness of these issues at school, children learn to apply the eco-conscious habits they learn at school elsewhere (Tidy Britiain Group 1997). This scheme also provides an excellent vehicle for experiencing active citizenship at school.

This scheme provides many benefits for the school. Such advantages can help schools to:

- Improve the school environment;
- Reduce litter and waste;
- Reduce fuel and water bills;
- Increase environmental awareness;
- Involve the local community;
- Gain business sponsorship;
- Gain local publicity; and
- Create links with other schools in the UK Tidy Britiain Group 1997).

There are seven steps to the Eco-Schools programme that a school can adopt. These include: an Eco-Schools committee; environmental review; action plan; monitoring and evaluation; curriculum work; informing and involving; and Eco-code. For a more detailed description of each of these steps, refer to Appendix U for more information on Eco-Schools (Tidy Britiain Group 1997 ). Schools that establish these steps can win a nationally recognised Eco-Schools award.

This scheme can be applied in conjunction with the development of school travel plans. If an Eco-Schools committee is established at the school, this committee may also be able to run the developments of a school travel plan. Both the Eco-Schools award scheme and the development of school travel plans work towards a sustainable lifestyle and can complement each other. Structuring the attitudes and habits of young children to make them better citizens can occur inside and outside of the classroom through curriculum work and active participation.

*4.1.3 Parental Awareness*

An important group of people to target educationally is parents because, as information from our parent interviews show, many parents do not know how severe the traffic problem really is or what they can do to help the situation. When statistics about pollution or the increase in congestion on the roads due to school travel were raised, some parents were shocked. As parent surveys showed, many parents feel there is danger on

school routes. However, they do not realise how they contribute to the danger by driving, or that they can do modest things to help congestion and safety problems.

Since the children in this study are too young to drive, those who are bringing cars to schools are the parents. The reasons they drive their children to school vary, from there being a great distance between their home and the school, to the roads being perceived as dangerous, to parents needing to drive directly to work after they drop off their child. Travel plans that aim to decrease the number of cars used to take children to school make it easier and safer for the children to get to school. Knowledge of these plans and actual danger levels are important so that parents know what is available to them in terms of school travel, and are aware of statistics about the danger in the area.

*4.1.3.1 Parent Pamphlet*

In order to inform parents of these issues, we constructed a pamphlet and gave this to the headteacher or school contact at each school. Included in this pamphlet were statistics on road safety, pollution, and health, and description of common traffic situations. Some initiatives that are under working development and simple things they can do to assist the problems are also in the document. The schools can add to the draft to make it specific to their school and enable them to have some ownership over the school travel plans they are to continue to develop. Through this informational pamphlet, it is hoped that parents can become aware of the school travel situation and be open minded to forms of sustainable transport.

*4.1.3.2 Parent Training Sessions*

Another means of educating parents who would like to take part in or volunteer to help with the school travel plans is through training sessions. It would be very effective to instruct parents with road safety techniques and relate to them how important it is for

them to be road conscious, as they are models for their children. Also, it is necessary for parents who volunteer to supervise a walking bus to be trained on what to do and how the programme works.

It is hoped that school travel plans can be complemented by a selection of these educational initiatives, where they are appropriate at each of the six schools. Through such initiatives, school travel plans have the capability of being highly successful in breaking the cycle of increasing danger due to car congestion on the roads.

## 4.2 Data Analysis for Infrastructure Improvements

Results from parent surveys, headteacher and concerned parent interviews, and observations indicated a need to improve the existing infrastructure both around schools, and on heavily travelled routes to school. Surveys, interviews, and observations made note of these dangerous areas and sought suggestions for improving them. We used student surveys to determine if cycling was popular enough to consider infrastructure improvements to aide cycling to school. Finally, interviews with borough officials concerning the feasibility infrastructure improvements provided criteria that limit the types of improvements we considered for certain locations.

### *4.2.1 Pedestrian Friendly Zones*

Pedestrian friendly zones will be discussed first because observation, research, and consultation indicates that infrastructure improvements are effective when introduced as part of a travel plans system (School Travel Strategies and Plans 42). Introducing infrastructure improvements as part of a system is also consistent with the guidelines given by the DETR in their publication "School Travel Strategies and Plans." This guide points out the successes of schools that participated in the safer routes to school pilot program. For example, Figure 4.1 on the next page shows Huntington School in York,

where a pedestrian friendly zone running in front of the school was added; in Huntington these measures have (School Travel Strategies and Plans 42):

- Reduced mean traffic speeds to 18 mph, a 45 percent reduction
- Reduced traffic volume around the morning peak hour by 25 percent
- Increased the number of children walking and cycling
- Helped eliminate accidents involving pupils in front of the school


**Figure 4.1:** A road in front of Huntington school in York. Notice the coloured asphalt, speed hump, bus shelter and stop, bike lane, and 20 mph speed limit painted on the asphalt.

In addition, observation of two schools that participated in the pilot program, located in St. Albans, highlighted the positive effect pedestrian friendly zones have on traffic. The concerns St. Albans pedestrian friendly zones addressed were similar to many we found from parent survey responses and interviews with head teachers. Pedestrian friendly zones generally include the following infrastructure changes:

- Coloured asphalt denoting school areas, shown in Figure 4.1
- Increased signage warning of school areas; examples are included in Figures 4.2 and 4.3
- Twenty mile per hour speed limit, shown in Figure 4.1
- Speed limits painted on the roadway, Shown in Figure 4.1

- Raised intersections and crossing points; an example is shown in Figure 4.4
- Mandatory cycle lanes, shown in Figure 4.1

While pedestrian friendly zones can be used at each of the four areas we studied, the composition of the zones varies between the areas depending on geography and stakeholder concerns. Also, some stakeholder concerns focused on routes to the school, rather than areas close to the school; for these concerns, individual infrastructure improvements may be more appropriate than creating an entire pedestrian friendly zone.

**Figure 4.2:** School warning sign painted on the roadway (A Safer Journey to School 26).


**Figure 4.3:** Warning sign near Wheatfields school in St. Albans. The orange lights flash, when school children are arriving or departing school, to warn drivers.

**Figure 4.4:** A raised crossing used outside Wheatfields School in St. Albans. The crossing serves to increase visibility at the intersection, as well as warn motorists they are approaching a pedestrian zone.

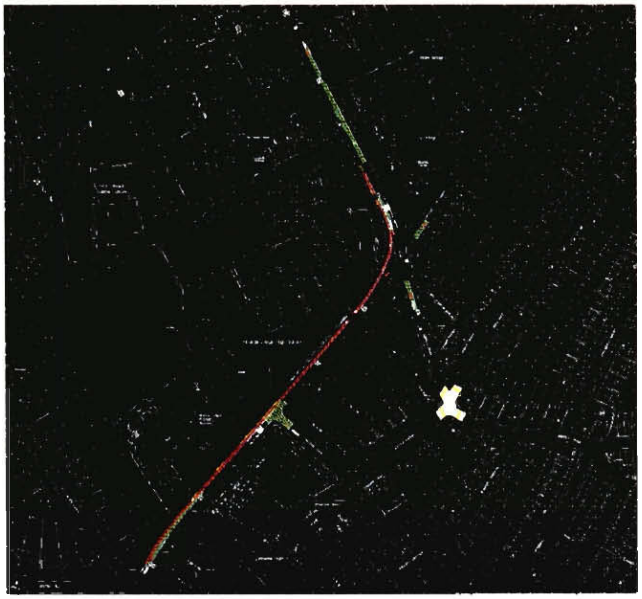


**Figure 4.5:** Ricards Lodge, Park House, Bishop Gilpin Area.

*4.2.2 Ricards Lodge, Park House, and Bishop*

In the Ricards Lodge, Park House, and Bishop Gilpin area parent survey responses, a focus group session, and interviews with the school contacts of Ricards Lodge (Corrine Harper), Park House (Richard King), and Bishop Gilpin (Nikki Morgan and Bob Cargill) all pointed towards five problem areas around the school and one on a popular route to the school. Figure 4.5 shows a map of the area around the three schools.

The one area located on a school route, the intersection of Dora Road, Leopold Road, and Leopold Ave., concerned stakeholders more than any other area; 50% of respondents indicated the area as concern. Most respondents who indicated the intersection as a concern felt there was not adequate visibility to cross the intersection safety. Observations concluded that visibility at the intersection was particularly poor when crossing Leopold Road from Dora Road Figure 4.6 shows the view from this dangerous corner, located in the southeast quadrant of the intersection, as it was seen shortly following the afternoon school dismissal. Visibility looking south down Leopold

**Figure 4.6:** The view from the southeast corner of the Leopold Rd. – Leopold Ave. – Dora Rd. intersection, looking southeast at approximately 15:00 on April 13th. Notice the very limited visibility due to the parked car and fence.

Road is worse for children then adults because they cannot see over the tops of cars and may not have developed sufficient skill to judge the distance a vehicle is from the intersection by sound. Further consultation with borough officials indicated that a traditional crossing system, such as a zebra or pelican, might not be practical for the Dora Road intersection. Pete Thomas, transport planner for the borough of Merton, indicated that a traditional crossing point might be unsafe because the poor visibility approaching the intersection from the south might not give motorists sufficient braking distance.

Areas of concern near the schools included two roads bordering the school area: Leopold Road and Lake Road Specific concerns for both roads included traffic speed, speed cushion design, and the shortage of safe crossing points. Concerns with speed cushion design focused on respondent's observations that cars swerve in order to put their wheels between the sections of the humps. Parents noted that this erratic behaviour makes it difficult to cross.

Finally, in addition to parent suggestions we also considered the responses to student surveys. Student surveys suggested that cycling to school is a popular idea at both Bishop Gilpin and Park House. At Bishop Gilpin and Park House combined, 45%, (155 of 342) of students responding to the survey indicated they would like to cycle. Also, parents at the Bishop Gilpin focus group showed interest in cycling with their children to school. However, parents only thought cycling would be feasible after cycle lanes were added to school routes and cycle parking facilities provided at the school.

*4.2.3 Hatfield*

In many ways, the area around Hatfield first school is similar to that around Bishop Gilpin, Park House, and Ricards Lodge. Two busy roads border the school and there are few safe crossing points. The Hatfield area also presents its own problem. The proximity of the major roundabout, known as the Beverly roundabout, shown in Figure 4.7, is the focus of concern for many parents who have to cross roads originating at the roundabout. In addition, parent and headteacher concerns also involved areas closer to the school, including: the crossing point in front of Hatfield on Lower Morden Lane, the traffic volume and speed on Hillcross Ave. and Lower Morden Lane, and parking in the no parking zones in front of the school. The map in Figure 4.8 shows the locations of these stakeholder concerns. Pedestrian friendly areas have, in the past, been used to address similar concerns close to other schools. However, the borough may be hesitant to create a pedestrian friendly zone on Hillcross Ave. because there are not school entrances on the road. Less restrictive measures, such as a crossing supervisor, may be appropriate for Hillcross Ave.

**Figure 4.7:** The Beverly roundabout with Lower Morden Lane visible on the right of the screen, the Beverly free house near the centre, and the traffic island on the left.

Parents are also concerned with the design of the speed humps used. Some parents felt the existing sectioned speed cushions should be replaced with speed humps that extend the full width of the road. However, after consulting borough transport officials we discovered that the sectioned speed hump design is used to allow emergency vehicles clear passage through the area. Therefore changes could not be made to humps on emergency routes. Similarly, several people complained about high traffic speed on Hillcross Ave. However buses on the 163 route use Hillcross Ave., and, in general, the borough does not put full width speed humps on roads used by buses (Pete Thomas 5/5/2000).

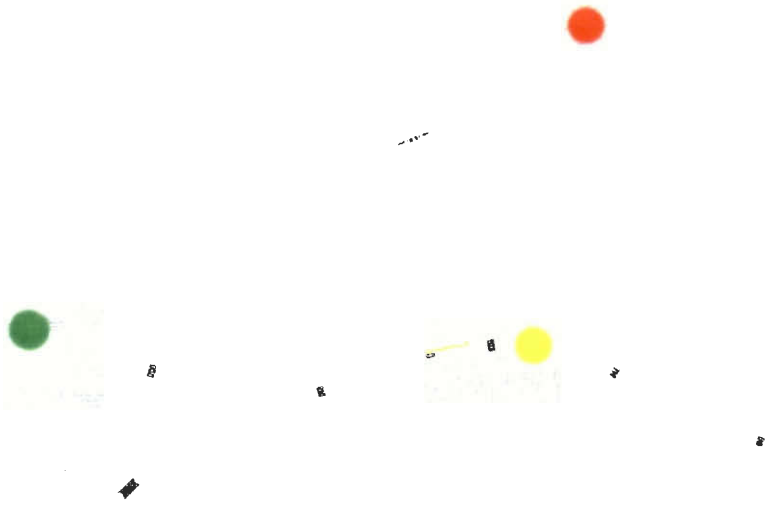


**Figure 4.8:** Areas of concern around Hatfeild. The yellow circle shows highlights the crossing on Lower Morden Lane, the red circle highlights the zebra crossing on Hillcross Avenue, and the green circle highlights the Beverly roundabout.

An area farther from the school that concerned parents is the Beverly roundabout. Like Hillcross Ave., the roundabout is not bordered by a school and is used by many automobiles. Pedestrian friendly zones would likely cause unnecessary backups in this area. Less restrictive measures, such as safe crossing points, have been used successfully in other high traffic areas. In fact, the majority of concerns regarding the roundabout were from parents who felt the existing pedestrian islands near the roundabout were too small. Currently a zebra crossing exists near the end of Tudor Drive, but none area located near the ends of Grand Drive or Hillcross Ave.

In addition to pointing out dangerous areas around the school, the headteacher at Hatfeild, Greg Parker, also suggested developing the footpaths around the school so they could be used as school routes. Developing footpaths for use has two potential benefits: separating children from automobiles and decreasing the journey time for students. If

designed properly, footpaths could also accommodate cycles. Cycling is not as popular an idea at Hatfeild as at other schools, only 12 of 41 respondents indicated they would like to cycle, but if safe cycle routes were created cycling may become more popular.

Improving footpaths could offer pedestrians and cyclists a safe route to school without restricting auto traffic. However, many of the footpaths around Hatfeild resemble the one pictured in Figure 4.9, which is too muddy for many parents to feel comfortable allowing their children to walk on.

**Figure 4.9:** An unimproved footpath near Hatfeild. The rain from the past few days had caused the path to be extremely muddy and difficult to use in some locations.

*4.2.4 Hollymount Area*

At Hollymount first school interviews with the headteacher Valerie Martin, as well as Maria Halpin, head of the Parent Teacher Association, and as parent surveys, indicated five major areas of concern around the school. Figure 4.10 shows a map of the Hollymount area and the problem areas indicated by the parents and the headteacher. Almost all the concerns parents had with the safety around Hollymount are concentrated

near the school. The most common concerns dealt with the intersection of Cambridge and Lambton roads, parking in front of the school, crossing points in front of the school, and the conversion of the old school on Cambridge Road into flats with underground parking.

Due to the proximity of the main school gate to the intersection of Cambridge and Lambton roads, as well as the concern for the area, the highest priority should be given to this area. Additionally, with respect to illegal parking, our observations noted that many parents utilise Pendarves Road as a place to park, and then walk students to school. On the morning we visited there were ample free parking spots on Pendarves Road throughout the peak travel hour.

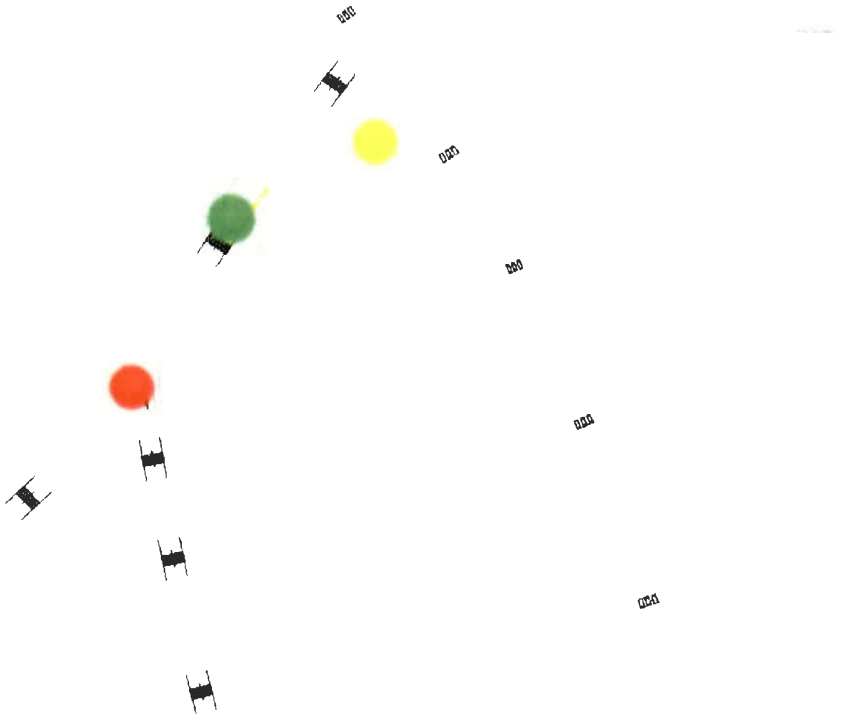


**Figure 4.10:** Areas of concern, as indicated by parents, around Hollymount School. The red area highlights the intersection of Cambridge Road and Lambton Road, the green are highlights the crossing point in front of the school, and the yellow area indicates the location of the Cambridge School House.

In addition to infrastructure improvements close the school cycling infrastructure should be given a high priority at Hollymount because 39% of students responding, 59 out of a sample population of 153, indicated they would like to cycle. Also more children will likely cycle to school when Hollymount becomes a primary school in two years, and grows to include students up to the age of eleven.

Stakeholders from Hollymount were also concerned with future problems that may arise when a new flats being built into the Cambridge schoolhouse. Valerie Martin, headteacher at Hollymount, was particularly adamant concerning the danger the underground parking facility for the new building would cause students. Valerie stated that the plans for the parking facility would require cars to back out over the pavement reverse onto Cambridge Road She sees this as a major problem because the pavement out side the area is very busy in the morning and afternoons, and students may not pay attention to cars coming from the development.

**Figure 4.11:** Areas of concern around Wimbledon Park. The red area highlights the zebra crossing on Durnsford Road, the yellow area Havana Road, and the green area the bridge over the rail lines.

*4.2.5 Wimbledon Park Area*

The Wimbledon Park area is different from the three areas involved in this project because the main gate for the school is located on a road with light traffic. However, the school is less than one hundred metres from a classified road, Durnsford Road Most respondents to our parent survey were concerned with Durnsford Road These concerns included: the intersections of Durnsford and Havana roads and Durnsford and Arthur roads, the lack of crossing points along Durnsford Road, and the bridge on Durnsford Road running over the rail tracks. Other concerns at Wimbledon Park included: the presence of commercial vehicles on Havana Road, the intersection of Havana and Wellington roads, and a general complaint about the heavy traffic around the school.

From our observations we noted that the area in front of Wimbledon Park, along Havana Road, was safer than the areas in front of the other three school areas. We did notice more lorries than was expected for such a small residential Road, this is due to the works located at the end of Havana Road However, the traffic volume on Havana Road was lower than at any of the other three school areas. Overall the traffic on Havana Road is not high, but the lorries do cause dangerous situations when they drive through the area during the times when students are arriving or departing school.

On Durnsford Road we observed the highest two-way traffic volume of our study, 1563 cars/hour, over a half hour period, from 14:45 to 15:15 during afternoon dismissal. However, the road has several relatively safe crossing points, including a zebra crossing with a crossing supervisor near the intersection with Havana Road, a pelican crossing across from a pathway to the school, and a pelican crossing at the intersection with Arthur Road

The bridge on Durnsford Rd, on the other hand, is not designed to take larger numbers of pedestrians. One survey respondent felt the bridge was so unsafe that it kept him from walking his daughters to school. The bridge, seen in Figure 4.12, has no pedestrian railings and relatively narrow pavement.

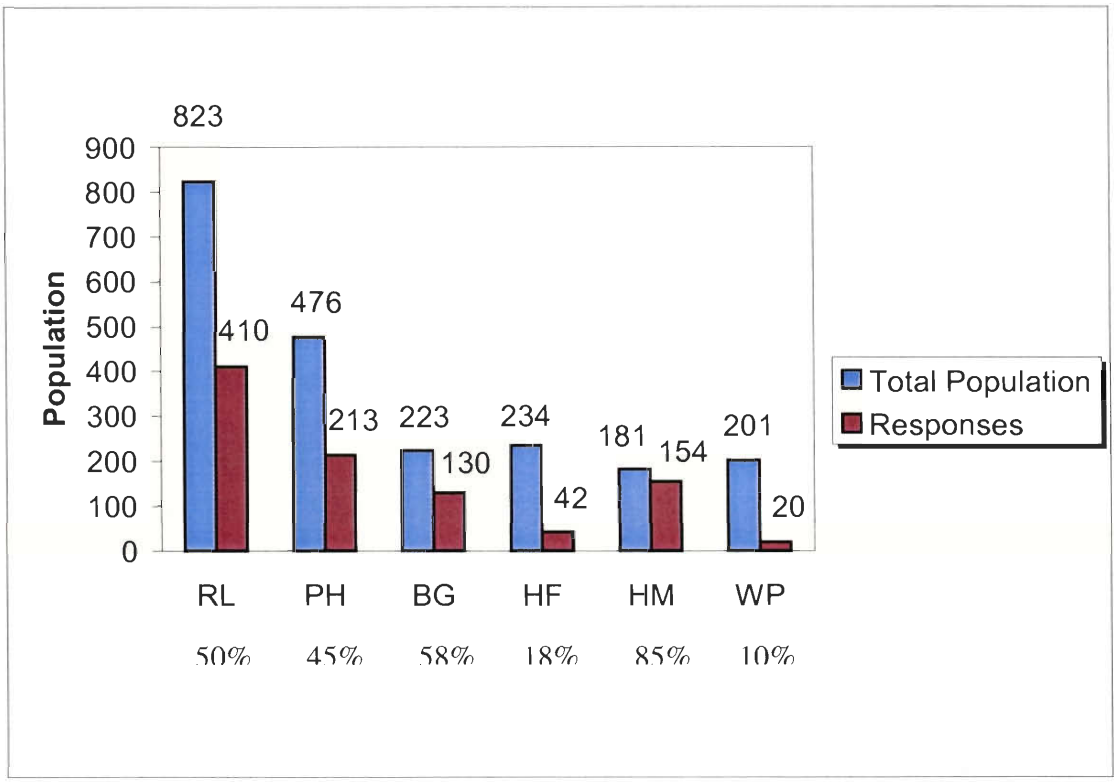
**Figure 4.12:** View of the bridge on Durnford Rd. south of Wimbledon Park. Notice there are no rails separating either pavement from the road.

In addition to concerns with existing infrastructure, additional infrastructure will be needed if cycling to school is encouraged. Student surveys from Wimbledon Park indicated that approximately one quarter of the students were interested in cycling to school. This is lower than any of the other first schools, but case studies have shown that if cycling infrastructure is introduced cycling may become more popular. However, from our research we learned that when roads are widened vehicle speed generally increases. Currently the cars parked on either side of Havana Road make the road very narrow, and may actually increase the safety by keeping traffic speeds to a minimum. Also the roads around Wimbledon Park are residential and have little traffic.

## 4.3 Travel Initiatives

We formed recommendations for travel initiatives through analysis of background research and consultation with stakeholders. Surveying students, interviewing and surveying parents, and interviewing headteachers and teacher governors completed this consultation. We suggested transport initiatives based on age, feasibility, acceptance, and recommendations of stakeholders for each school individually. The following sections discuss the general results of student and parent surveys, as well as the implications of the consultation process.

We administered 2138 surveys to each of the students at the six schools involved in our study. We received back 969 total student surveys. As seen in Figure 4.13, Ricards Lodge, Park House, Bishop Gilpin, and Hollymount had the highest response rates at 50%, 45%, 58%, and 85% respectively. We expected high rates of response from these school; Ricards Lodge and Park House completed their surveys in class; Bishop Gilpin and Hollymount were the first schools to receive the survey, and therefore had the longest amount of time in which to return them. Hatfield and Wimbledon Park had the lowest response rates of 18% and 10% respectively. The response rates at Hatfield and Wimbledon Park may be due to time constraints. For these schools, we were not able to send home reminder letters, as had been done in past IQP projects because of the Easter holiday. Also, at Wimbledon Park and Hatfeild, the parent and student surveys were sent home stapled together. We speculate that parents may have not have filled the surveys out right away because they felt the survey was too long.




RL=Ricards Lodge, PH= Park House, BG = Bishop Gilpin, HF = Hatfield,
HM= Hollymount, WP = Wimbledon Park.

**Figure 4.13:** Response rates of student surveys. This graph represents the total number of student surveys distributed (blue) and the total number of surveys collected (red) for each school. The x-axis represents the schools in the study. The y-axis represents the number of students. The percentage given below each school is the response rate.

*4.3.1 Ricards Lodge High School*

Ricards Lodge is comprised of 823 female students of ages 12 to 16. The response rate for surveys administered at Ricards Lodge was 50%. This response rate suggests that the results of the survey represent the school as a whole.

Figure 4.14 shows the breakdown of the current transport choices of the students at Ricards Lodge. Fifty-three percent of students who responded currently use the bus system, 19% walk, and 15% are driven. These results were different from the first and middle schools, in that not as many people are driven at Ricards Lodge. These figures

suggest that there are opportunities to improve the current bus system and encourage students to use this system more.

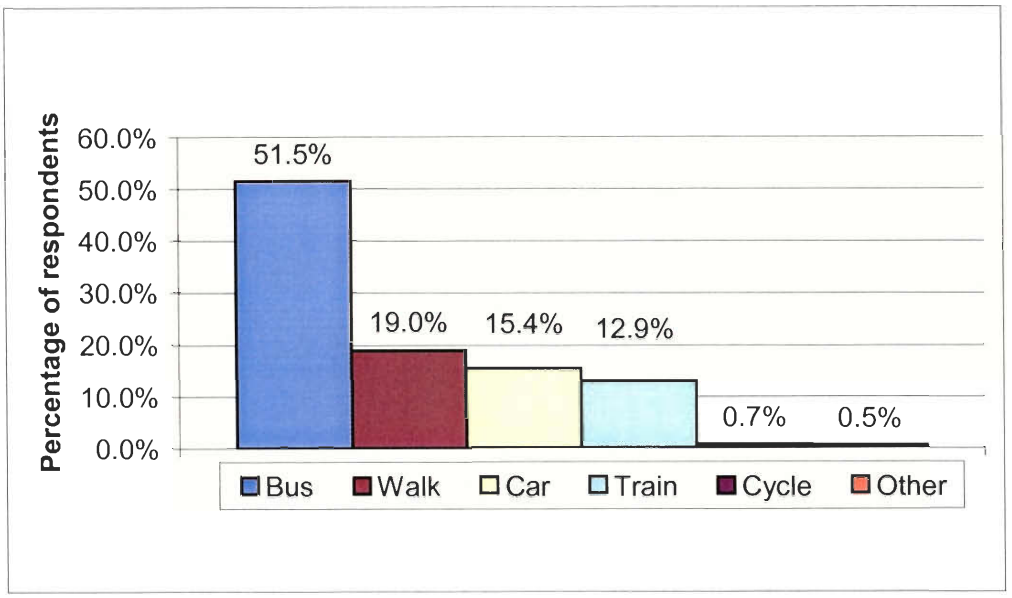



**Figure 4.15:** Ricards Lodge current travel methods. This graph represents the transport method, designated by colour, of the students at Ricards Lodge high school. This graph represents the answer to the question "How do you travel to school most often?" The x-axis is the form of transport used. The y-axis is the percentage of students who responded to our survey. The percentages above the columns represent the percentage of students who use that transport method.

Ricards Lodge represented a different situation than the first and middle schools. Because the majority of Ricards Lodge students take the bus to school, it may be beneficial to improve the bus system. Upon interviewing the teacher governor, Corrine Harper, we learned that Ricards Lodge was in the process of implementing a school bus system comprised of a public bus dedicated to Ricards Lodge during the morning and afternoon commute. Because Corrine Harper requested that we try to find routes that the bus could possibly take, we added an addendum to the survey handed out to students.

Ricards Lodge students were also asked to comment on changes they would like to see to the transport system; these recommendations are shown in Figure 4.15. We used these students' suggestions when making our own recommendations. Many suggested a bus that was dedicated to Ricards Lodge students, or a bus that stopped closer to the school than the current stop. These recommendations suggest that the new bus system will be well accepted. Also, many students complained about the crowdedness, frequency of the buses, treatment for students from bus drivers, and lower fares. A public bus dedicated to Ricards Lodge may help resolve these problems.

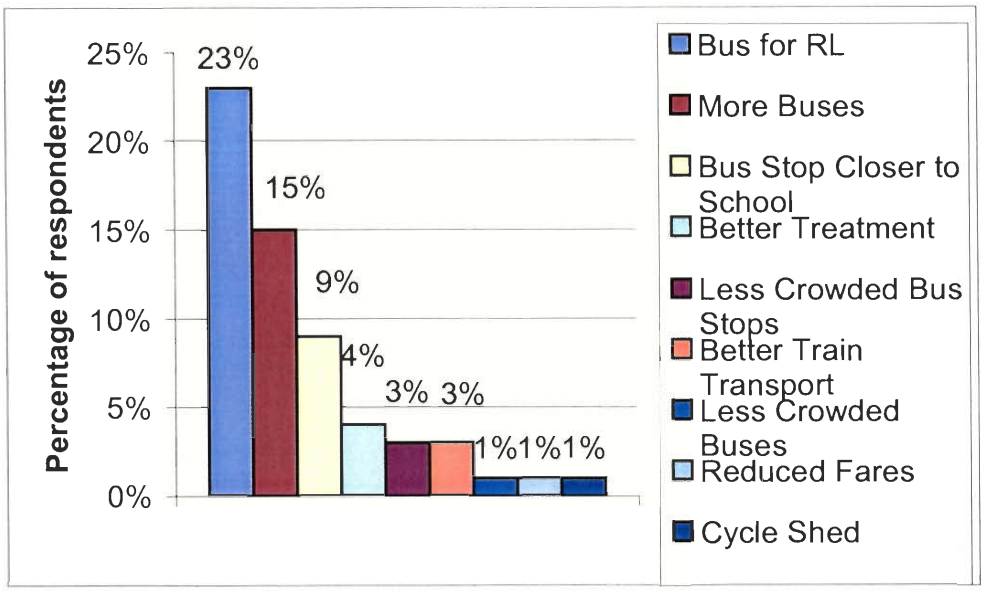



**Figure 4.15:** Transport suggestions from Ricards Lodge students. This graph shows the answers to the question posed to Ricards Lodge students, "do you have any suggestions for improving school travel for you and your classmates or comments on the current system?" The columns represent the percentage of respondents that suggested that specified recommendation. The horizontal axis stands for the recommendations. The vertical axis is representative of the percentage of students who completed our survey.

According to Corrine Harper, a teacher/governor at Ricards Lodge, there are problems between Ricards Lodge students, other students, and citizens at the bus stops during the morning and afternoon commutes. A bus system dedicated to Ricards Lodge

students would decrease this congestion at the public bus stops and separate Ricards Lodge students from other travellers.

Another factor that we considered when looking at the public school bus option was the age of the students. Ricards Lodge students are aged twelve to sixteen. At this age, our data suggests that students are likely to travel to school independently, and would therefore be more likely to use a public school bus. According to Corrine Harper, at this age, students are old enough to travel to school independently by cycling on their own and to make road safety decisions to travel safely to school

When suggesting transport alternatives, we considered the area around the school. From our observations, we found that the area around the school is primarily residential and has many traffic calming measures that help slow the speed of traffic. With additional continuous cycle lanes and improved safe crossing points, the area around the school could be made safer for students to cycle. For this cycling program to become successful, the borough would have to develop cycle routes throughout the area, as well as, provide secure cycle parking at the school.

For alternative methods of transport to become more successful at Ricards Lodge, measures should be taken to decrease car usage. Among the highest responses were easiest method, time, distance, parents continuing to work, and siblings at another school. A bus system would enhance the safety of the students from strangers and road safety problems. With the implementation of a dedicated public school bus, more car users may be willing to take bus transport. Also, if routes were set to accommodate more students at Ricards Lodge, students who usually use a car to get to school may find it easier and more convenient to take the school bus instead

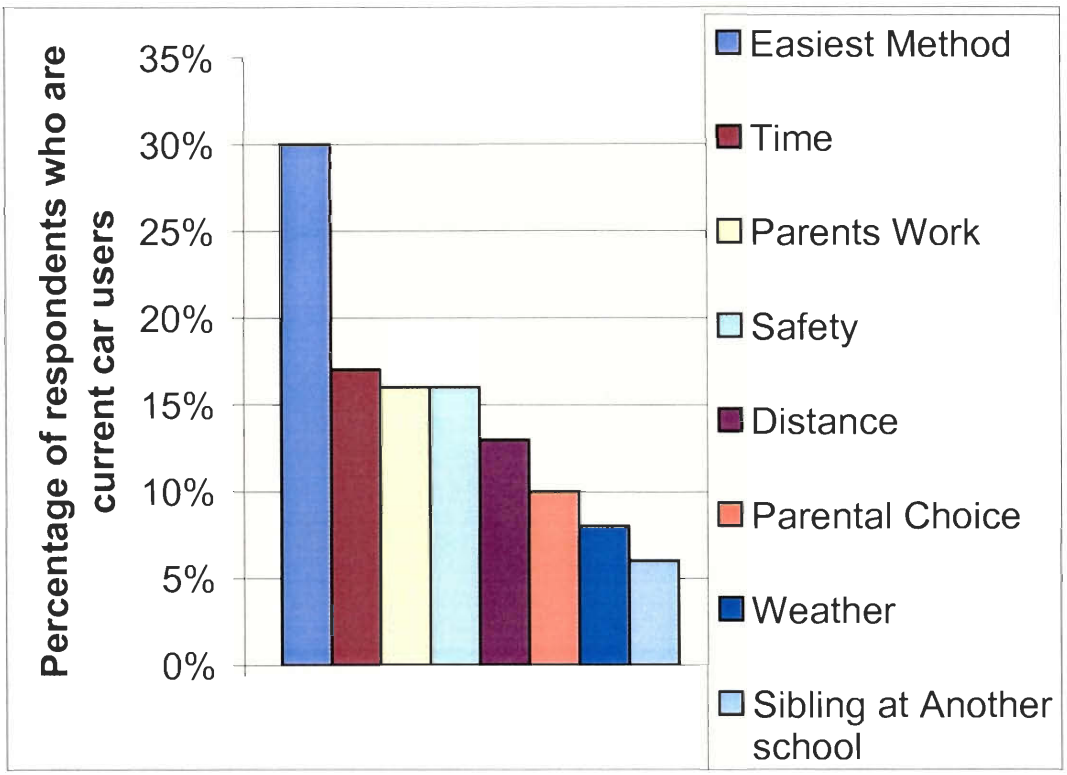



**Figure 4.16:** Reasons of Ricards Lodge students for why they currently travel to school by car. This graph shows the reasons of why Ricards Lodge car users use the car to get to school. The graph was formed by finding the percentage of current car users that listed the above reasons for the question, "why do you travel to school the way you do currently?" The columns represent the reason for driving and the vertical axis represents the percentage of students who answered our survey.

*4.3.2 Park House Middle School*

The student survey response rate for Park House Middle School was 45% out of 476 total students. Currently, 55% of the students surveyed were driven to school, 32% walk, 10% travel by bus, and a small percentage take the train or other means of transport; refer to Figure 4.17. Park House featured the highest driving percentage of all the school in our study.

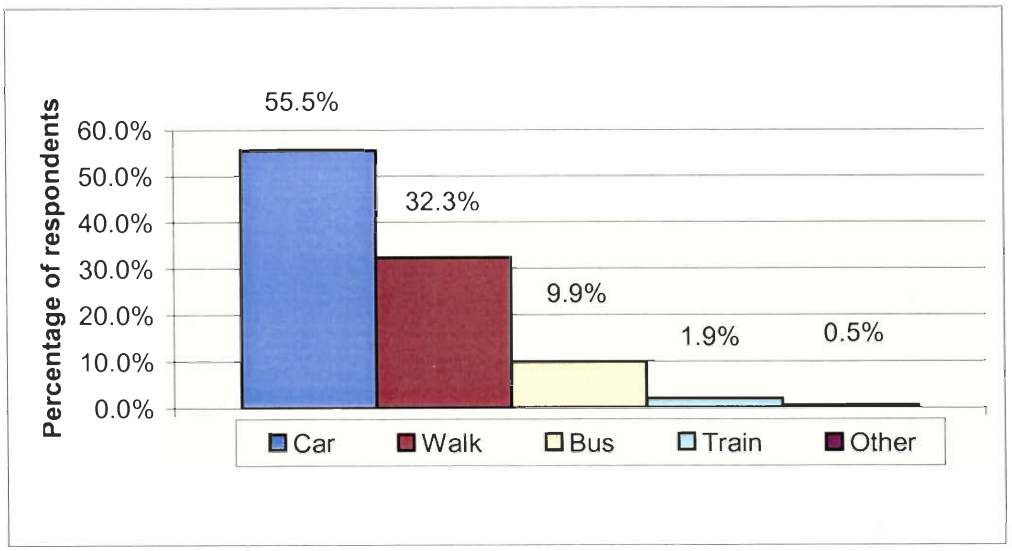



**Figure 4.17:** Current transport methods at Park House middle school. This graph shows the response of Park House students to the question, "how do you travel to school most often?" The different coloured columns represent the transport method. The y-axis represents the percentage of students that chose that transport option.

Because car use at Park House was high, we examined what transport methods students might be willing to use and why students are currently driven to school. Our survey results suggest that cycling may be highly accepted. Figure 4.18 shows that Park House students chose cycling as their most desired method for school travel for both the overall student body, 45%. Even though there were 33% who still preferred being driven to school, it was worthy to notice the interest in other forms of transport, including public transport.

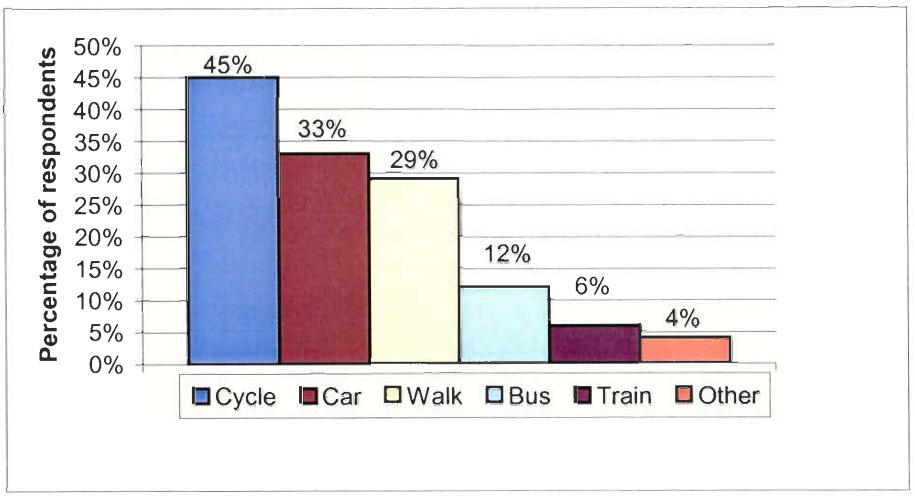



**Figure 4.18:** Desired methods of transport of Park House students. This graph shows the answers to the question, "how would you like to travel to school?" The coloured columns represent the transport method chosen. The y-axis represents the percentage of respondents that chose that method. Students were able to choose more than one method; therefore the percentage is greater than 100%.

In studying Park House, we had to consider the future plans of the borough to combine Park house with Ricards Lodge in two years as part of the borough wide change to primary and secondary schools, rather than first, middle, and high schools. Because of this change, the recommendations we made were intended to be short term and would be adapted to Ricards Lodge or Bishop Gilpin in the future. Cycling and a public bus system are initiatives that can be adapted in the future to suit the needs of Ricards Lodge or Bishop Gilpin students. If bicycle sheds were built at this school to support the increased cycling, both Ricards Lodge and Bishop Gilpin students could, in the future, use these sheds.

We also considered the age of Park House students. Even though many children desired to walk to school, these students were too old for a walking bus. Park House students, though, are of the age where children approximately nine and younger can cycle

to school with their parents, while those approximately ten and older can cycle by themselves.

The secondary alternative we considered for Park House is to link the school with the Ricards Lodge bus system. This bus system may motivate current car users to use the bus, especially if these drivers are located along the new bus routes.

Another consideration when recommending transport alternatives for Park House was the area around the school. Park House is located in a residential area but close to Durnsford Road and Wimbledon Commons. For the area to become safer for cyclists or walkers, infrastructure changes may need to be made, refer to section 4.2

*4.3.3 First Schools (Bishop Gilpin, Hatfeild, Hollymount, and Wimbledon Park)*

The first schools had varied rates of response as shown in Figure 4.13. Because of this factor, we analysed the data obtained from first school surveys as a whole. This enabled us to make more thorough recommendations for schools with low response rates based on similar schools in the borough, as well as through case studies of similar schools throughout the area.

Figure 4.19 shows the most common current transport methods of first school children. Notice that both walking and cycling were the most popular methods. Many of the first school children are too young to cycle or take public transport to school. We also expected that children who lived close to school would walk, while those who lived far away would be driven. We also expected some children to be driven to school due to other reasons, such as parents continuing on to work or driving siblings to another school. Because of these results, our main focus at first schools is making walking and cycling more convenient for students currently walking, but especially for those who are driven.

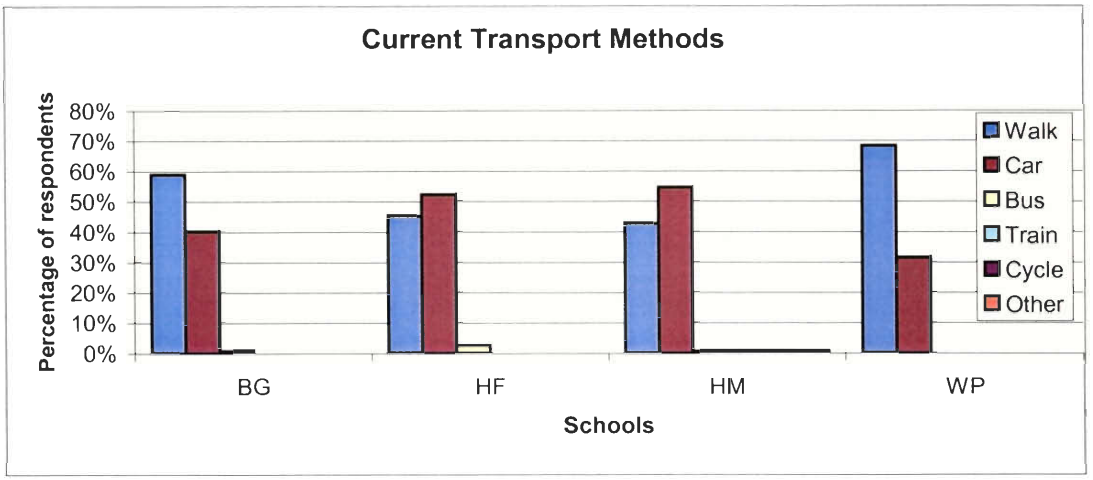



**Figure 4.19:** Current transport methods of first school students
BG = Bishop Gilpin, HT=Hatfeild, HM = Hollymount, WP = Wimbledon Park
This graph shows the responses to the question, "how do you travel to school most often?" The x-axis is the schools, the columns represent the transport method, and the y-axis shows the percentage of students who responded to the survey

.

Figure 4.20 shows that walking and cycling had high response rates for desired transport method of first school children. The walking response for desired transport suggests that walking initiatives will be highly accepted at first schools. This led us to consider walking bus initiatives for the first schools. The results for desired transport also implies that cycling has a high acceptance among these students.

The number of cycling responses was not expected because of the lack of current cycling percentage. Parental responses concerning why they would not allow their child to cycle included safety, lack of cycle lanes and cycle storage, and age. With improvements in the above areas, cycling could become a more popular method of travel. Notice, especially, that at Bishop Gilpin and Hollymount, the two first schools with the highest response rates, that the desire to be driven had a very low response.

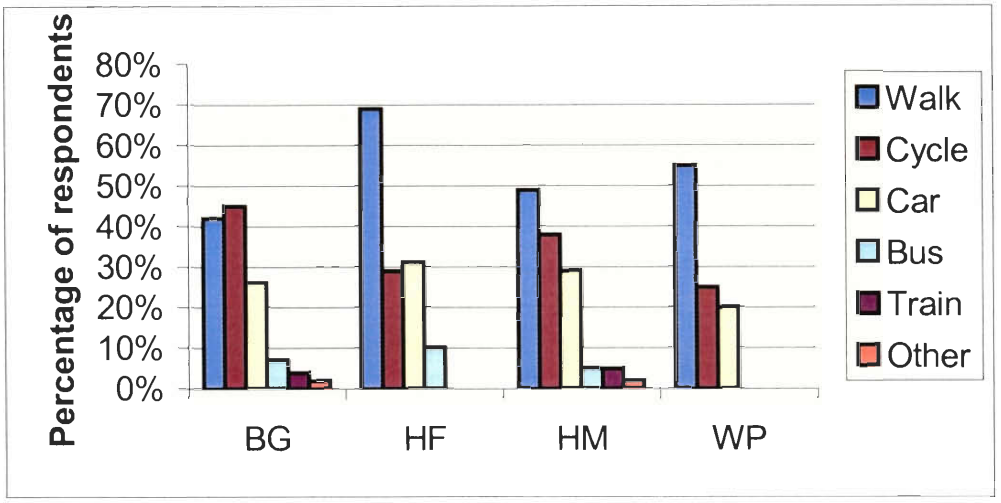



**Figure 4.20:** Desired methods of transport of first school students

Because driving was high at first schools, we examined the reasons parent gave for driving and students gave for being driven. The most common reasons were time, distance, convenience for parents on their way to work, and siblings at another school. Other less frequent answers included, age, lack of a good bus and train system, and weather.

For alternatives to become successful, parental acceptance is needed. We examined if parents would accept walking and cycling alternatives, and if not, how their minds could be changed. We surveyed parents to determine if they would let their child use a walking bus. Tthe results suggest that a walking bus will be accepted at the first schools although the results vary for each school. Parents who would not allow their child to use a walking bus were asked to answer a follow up question asking why. The major concerns and reasons were social time with child, distance from school, time to get to school, safety of routes, age, already have a lift system, and can not volunteer to run route once or twice a week. For walking buses to become more popular among these people, parents and children can be educated to eliminate some of these concerns. For

example, parents should be informed that people running the walking bus are trained in safety education and children must follow a set of rules in the walking bus. Also, students who are very young must hold the hand of an older student or a parent while in the bus (interview with Chris Braidwood).

**Table 4.1:** Parental acceptance of a walking bus and a cycling initiative
BG= Bishop Gilpin, HF= Hatfeild, WP= Wimbledon Park. WB=walking bus. This graph represents the parent responses to the questions, "Would you allow your child to use a walking bus? (Columns two and three), would you be willing to volunteer to run a walking bus? (Column four), would you be willing to be on a committee to set up a walking bus? (Column five), and would you be willing to cycle to school with your child? (Columns six and seven)"

| Name of School | Yes (let child take wb) | No (will not let child use wb) | Willing to volunteer | Willing to volunteer for committee | Yes (let child cycle to school) | No (will not let child cycle to school |
|---|---|---|---|---|---|---|
| BG | 19 | 5 | 18 | 9 | NA | NA |
| HF | 28 | 12 | 11 | 9 | 14 | 28 |
| WP | 18 | 15 | 12 | 3 | NA | NA |

Parent volunteers are an essential element of a walking bus. There was a high response rate among first school parents to run the routes. Also, volunteers will be needed after the completion of this project to implement our ideas. This question had a fairly high response from parents also. Table 4.1 contains specific figures.

A walking bus also solves many of the reasons expressed on our surveys in response to the question why do you drive your child to school. According to our survey, many parents continue onto work or take other children to a different school. A walking bus is convenient because the parent does not have to drive their child to school and add to the congestion before doing the other actions. If one lives too close, the child would be last on the route. The parent involved is usually worried about having to walk far

when they must lead the bus, but a walking bus usually includes only children in the general area so the distance would be short; those that lived farther away would be in a different walking bus. Safety issues are also considered; volunteers must first take a road safety course. Also, infrastructure changes can be made around the areas to make the routes safer. Refer to the previous safety initiative section. Parents' concerns about weather are considered by the use of umbrellas for the walking bus provided through funding. One parent in the focus group session also stated that children generally like walking to school in the rain. The age concern was discussed in the focus group at Bishop Gilpin as well. One parent's response was that she has a child that at three and a half years old liked to walk to school and travelled for 20 minutes to get there.

Year two parents at Bishop Gilpin were surveyed to obtain information specifically about a walking bus. Bishop Gilpin is currently working with the borough of Merton to set up a walking bus system, and the headteacher at this school had an interest in obtaining data from parents on this specific initiative. Through the focus group meeting with Bishop Gilpin parents, other walking bus issues were raised. They included: designation of a co-ordinator, means of handling schedule conflicts, and substitute drivers in cases of illness. Another idea brought up by the parents was extending the walking bus to the whole school instead of just the year two children. Parents may have more than one child at the school and a walking bus should accommodate all children. These ideas and concerns must be considered when presenting the walking bus suggestion to parents

Another positive aspect of walking buses and cycling is their future implications. As discussed earlier, first schools will become primary schools in two years. This means that there will be more grade levels within these schools. Students that use a walking bus

system as young children will gain the road sense needed to cycle safely as older children. Their experiences within the walking bus will prepare them for making decisions on how to ride safely to school.

Parents from Hollymount and Hatfield were also asked if they would be willing to cycle to school with their child. Table 4.x shows that this question also had a moderate response. Cycling was also considered because of a parent interview. When consulting with Maria Halpin, governor at Hollymount, she mentioned that many parents would like to cycle with their children to school and then continue on to work. Because of these results, a cycling initiative may be accepted more at schools with this same attitude.

# 5.0 Recommendations

This chapter presents the conclusions from our data analysis and details the recommendations we made to the schools involved in the project, as well as to the borough of Merton. To the schools, we provide recommendations for educational and travel initiatives based on the results of our interviews, surveys, and observations, and how these initiatives can be further developed. Along with this, we identified, through parent and headteacher consultations and our observational analysis, areas around the school that are perceived to be dangerous. To the borough, we have relayed, in addition to these initiatives and concerns, several alternatives for infrastructure changes that can be considered to make travel routes safer.

## 5.1 Educational Initiatives

We have concluded that the following educational initiatives are feasible, beneficial parts of an integrated school travel plan. We have listed several initiatives below so that each school can structure the educational aspect of their travel plan as they choose. Schools differ and may benefit more from a certain programme than another. However, most of the initiatives are complementary, and would be more advantageous if used in combination. For example, Pat Dunkley, the principal accident analysis and prevention officer at the borough, explained that assemblies can present information about sustainable travel in a motivational fashion, but without the continuation of this education through several lessons within the curriculum, the purpose would be lost. By integrating these initiatives in a complementary manner, there would be relevance to the educational aspect of the school travel plans. The following initiatives are prioritised under cross-curricular, extra-curricular, and parent education sections, the ones analysed

to be most beneficial at the top of the lists. Spider diagrams have also been constructed to relay this information in a comprehensive, user-friendly fashion.

## Cross-curricular Initiatives

1. School travel lessons/assignments incorporated into course material

- Lessons prepared for the National Curriculum incorporating school travel
  - Key Stage One
  - Key Stage Two
  - Key Stage Three
  - Key Stage Four
- Creative writing assignments (Hertfordshire SRTS Demonstration Project)
  (Generally themes of independence, personal development and health)
  - My ideal route to school
  - Walking to school with my parents/friends/on my own
  - Walking in the rain
  - Why I enjoy cycling
  - My bus ride to school
  - Fresh air and exercise
  - How I want to travel to school when I'm older
- Art or design assignments (Hertfordshire SRTS Demonstration Project)
  - Draw your ideal bicycle shed
  - Design a motif that can be used to promote green transport
    (E.g., a symbol such as a footprint to put on the pavement)
  - Design a logo promoting safe routes to school (poster, buttons, etc.)
  - Model a safe school entrance area (cycle lanes, safe crossings, speed zones, etc.)

2. Safety Training Programmes

- Road Safety Training
  - Safe crossing places
  - Stop, look, listen
  - Distinguishing near/far and fast/slow vehicles
- Cycle Techniques and Training
  - Cycle helmets
  - Streetwise skills
- Travel Conduct and Codes
  - Proper behaviours
  - Stranger awareness

3. Travel Surveying

- Traffic Surveys
  - Yearly monitoring of school travel plan success
  - Pedestrian and auto counts
  - Information Technology (IT) developments
- Land Surveys
  - Road design and infrastructure system
  - School layout and design
  - Information Technology (IT) developments

## Cross-curricular Educational Initiatives

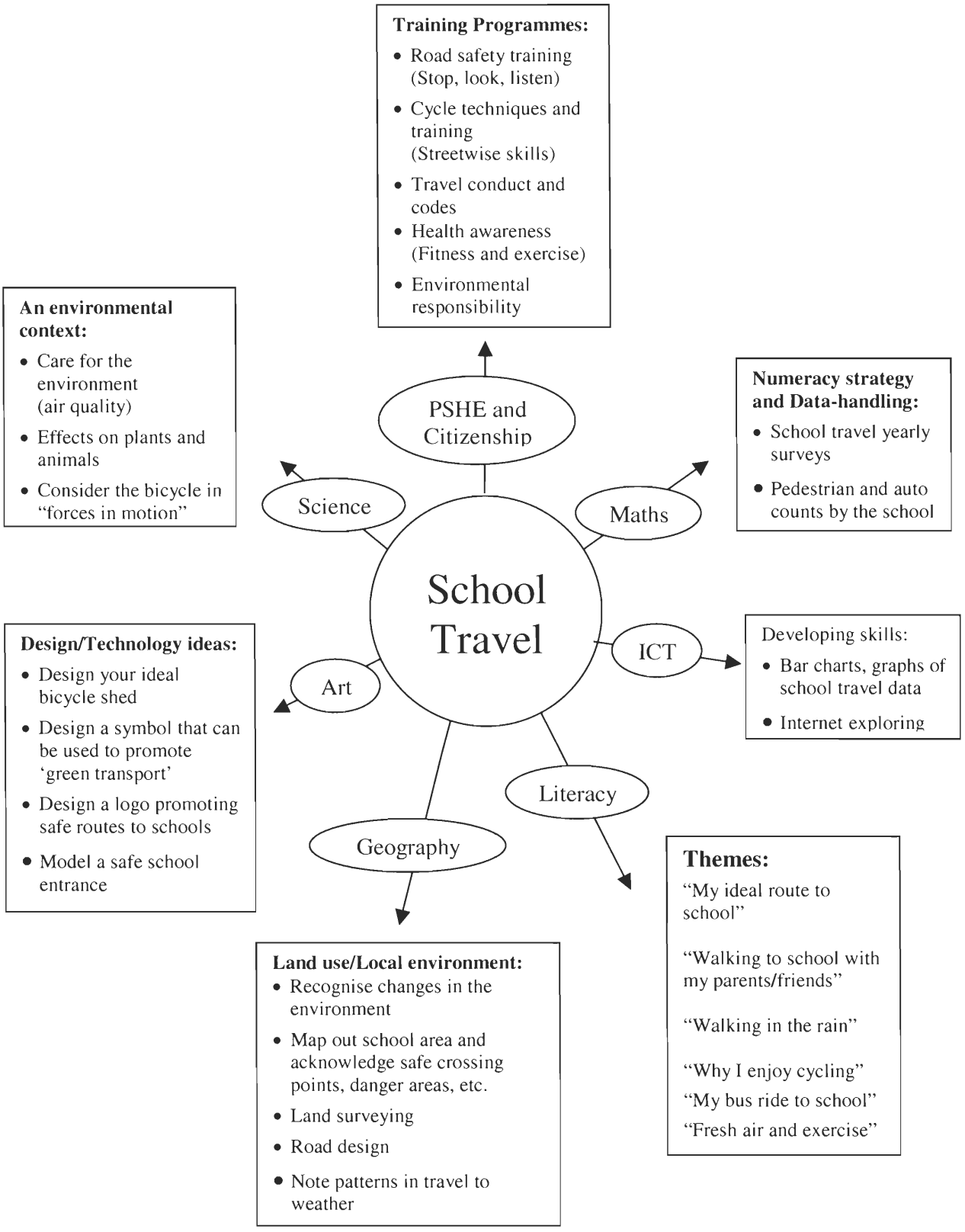



**Figure 5.1:** Diagram describing possible cross-curricular initiatives

Extra-curricular Initiatives

1. Assemblies (with guest speakers)
- "Walking or cycling to school is fun"
- "Safe travel to school"
- "Exercise and health"
- "Clean environment"
- "Sustainable development"

2. Design Competition
- Borough-wide school travel logo contest
  - Posters outside of school entrances
  - Quarterly rotation of design
  - Prises and recognition

3. Theatre-in-Education Productions
(Themes ranging from school transport to the environment)
- Green transport
- Safety for pedestrians and cyclists
- Young drivers
- The earth and balance
- Clean air; healthy bodies

4. Field Trips
(Themes regarding interactive school travel education)
- Health and fitness
- Environment awareness
- Road and travel safety

5. Motivational Activities
- Dances
- Fairs
- Awards and prize points

## Extra-curricular Educational Initiatives

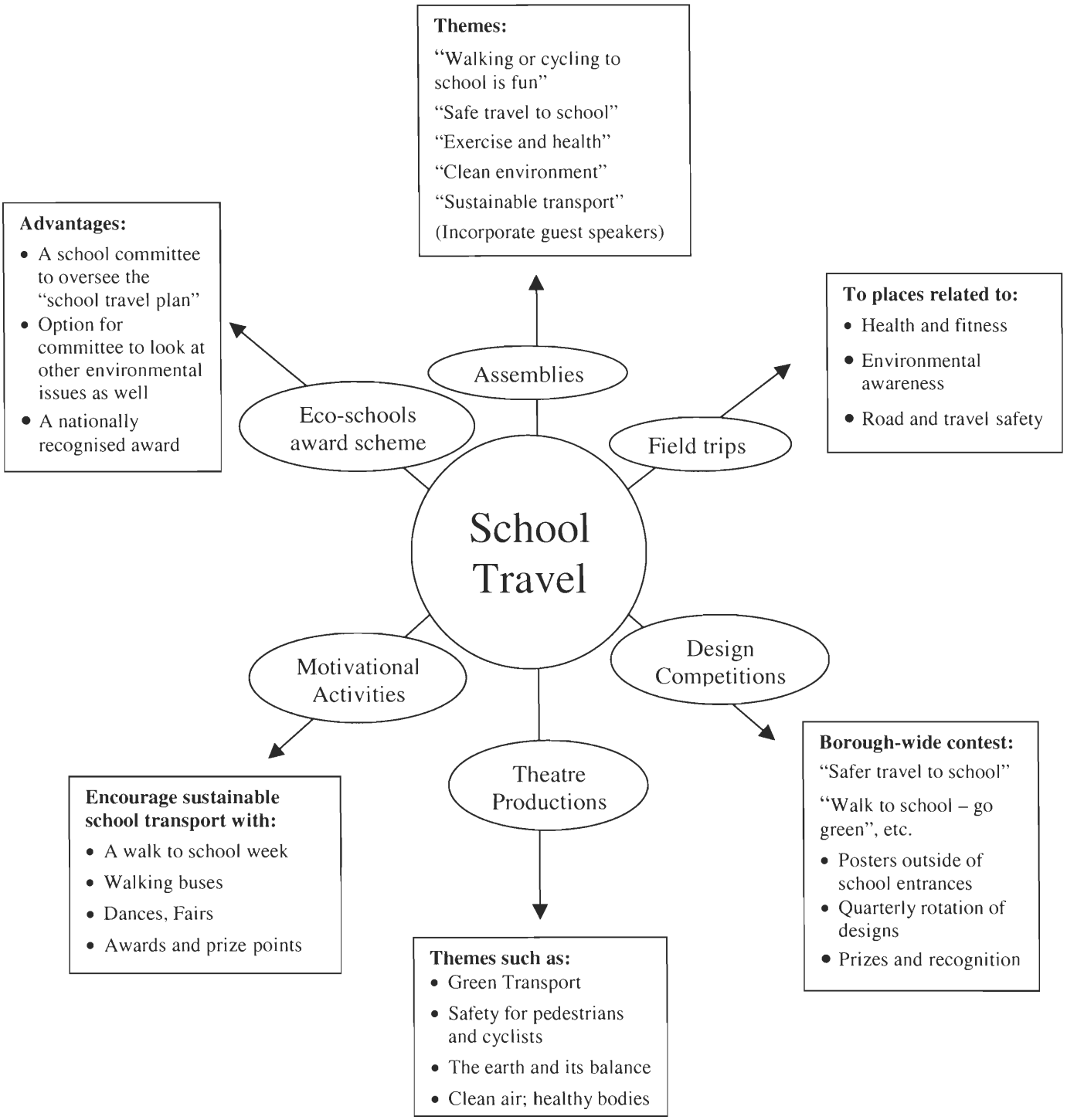



**Figure 5.2:** Diagram describing possible extra-curricular initiatives

Parent Education

1. Training and Information Sessions
- Walking bus supervision principles
- Cycle code awareness
- Danger and accident statistics informational meeting

2. Informational Pamphlet
- "Did you know..."
- "Simple things you can do to increase your child's safety..."
- "Simple things you can do to protect the environment..."
- Statistics on transport congestion and danger assessments

A sample informational pamphlet for parents was produced and a copy is located in Appendix T.

## 5.2 Infrastructure Improvements

Based on our analysis of data collected from stakeholder consultation, we have proposed certain recommendations for improving the safety of the roads around each school and the routes to these schools. From our observations of schools with successful travel plans, as well as interviews with borough officials and headteachers, we concluded that infrastructure improvements should, where possible, be implemented as part of an overall effort to improve safety in the area. By creating a pedestrian friendly environment around schools, infrastructure changes can address the underlying problem of reducing real and perceived danger to encourage walking and cycling to school. These pedestrian friendly zones should also be complimented with changes to make routes to school safer. Recommendations for each school are grouped into two categories, those as part of pedestrian friendly zones and those falling outside these areas. Recommendations falling outside pedestrian friendly zones vary with each school, but pedestrian friendly zones generally include improvements to six areas:

- Coloured asphalt denoting school areas
- Increased signage warning of school areas
- Twenty mph speed limits
- Speed limits painted on the roadway

- Raised intersections and crossing points
- Mandatory cycle lanes

*5.2.1 Ricards Lodge, Park House, and Bishop Gilpin School Area*

Suggestions to the Ricards Lodge, Park House, and Bishop Gilpin area include both pedestrian friendly zones and improvement along routes to the schools. Specifically, we recommend that the borough of Merton create safe pedestrian zones on two roads surrounding the school area as shown on the map in Figure 5.3. These areas would include all aspects of pedestrian friendly zones, specifically:

- Coloured asphalt added at each boundary of the pedestrian friendly zones, as shown in Figure 5.3.

- Warning signs on approach to each pedestrian friendly zone, as show in Figure 5.3.

- Twenty mph speed limit for Lake Road and Leopold Road

- Speed limits painted on road at the same locations as warning signs, as shown in Figure 5.3.

- A raised zebra crossing on Leopold Road north of the intersection of Lake Road and Leopold Road, and on Lake Road southeast of the intersection with Ricards Road in front of the school gates, as shown in Figures 5.4 and 5.5 respectively. Also, in conjunction with the raised crossing near Ricards Road, we recommend introducing a no-parking area on either side of Ricards Road at its intersection with Lake Road to increase visibility for pedestrians crossing at the intersection, and help avoid situations like the one shown in Figure 5.6.

- A mandatory cycle lane extending from the current cycle intersection facility at the intersection of Lake and Leopold roads southeast along Lake Road until the intersection of Lake Road and Church Hill. Also, we recommend dedicating road space to a cycle lane on Leopold Road from the existing intersection facility to the gates of Ricards Lodge.

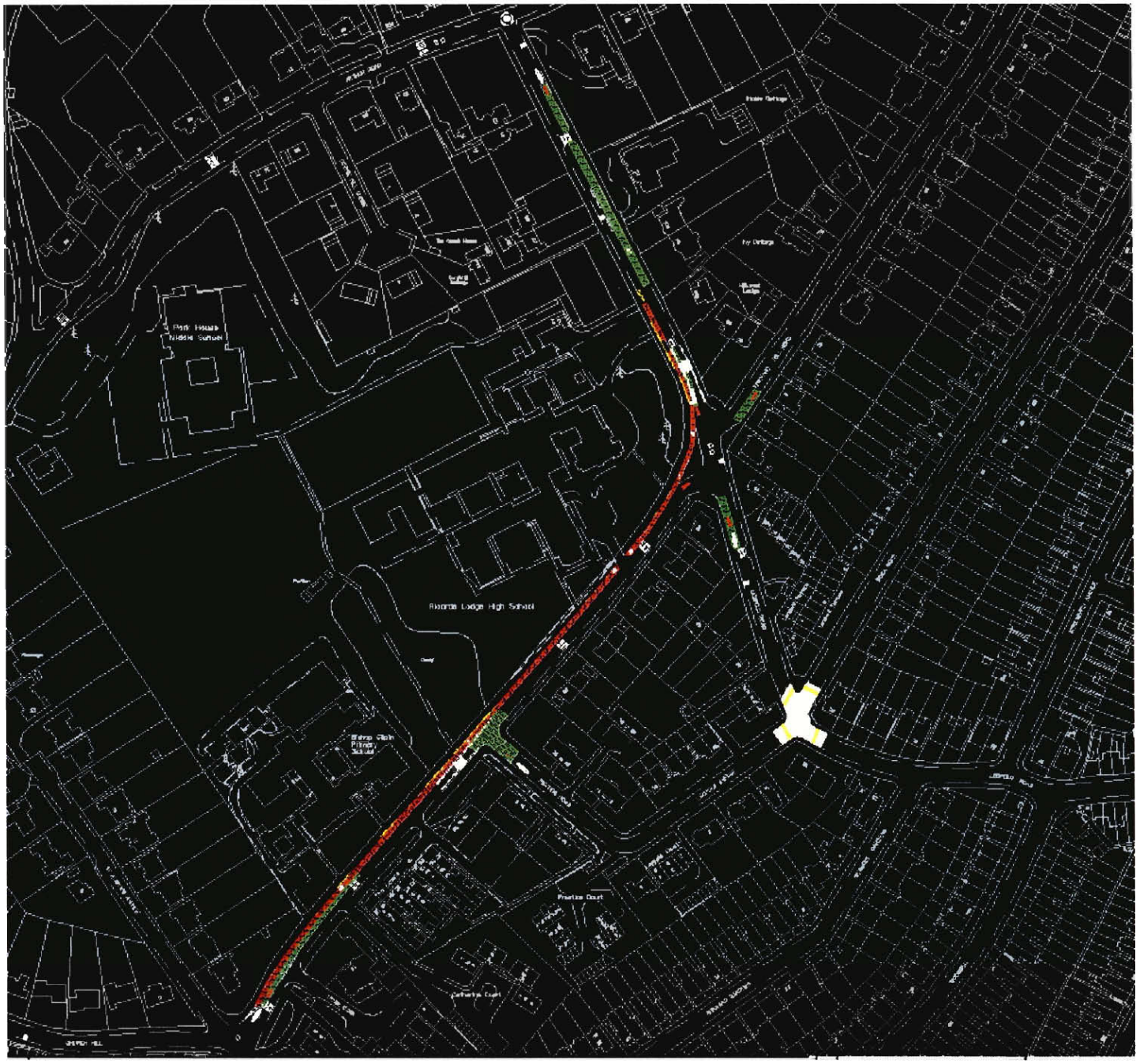



**Figure 5.3:** Infrastructure improvement recommendations for Ricards Lodge, Park House, and Bishop Gilpin area. The green area represents green asphalt used to indicate the beginning of a pedestrian friendly zone. The red represents areas dedicated to mandatory cycle lanes. Also notice speed roundels and school warning signs painted at the beginning of each pedestrian friendly zone; it is also recommended that these markings on the roadway be accompanied by signs on posts. Finally note the two raised zebra crossings; one southwest of the Lake Road – Ricards Road intersection, and one north of the Lake Road – Leopold Road intersection.

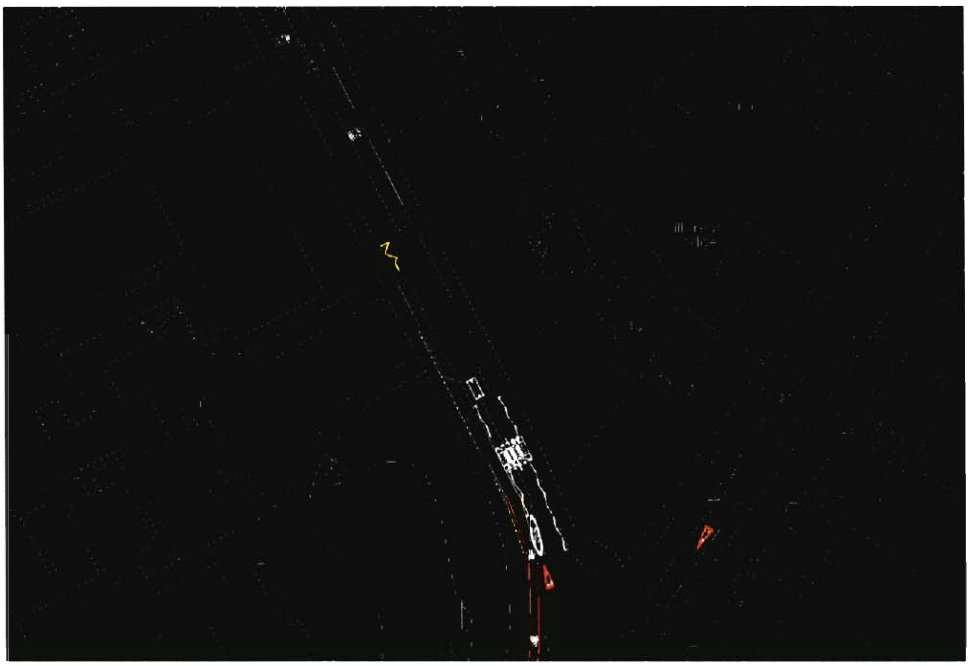


**Figure 5.4:** Recommended raised zebra crossing north of the intersection of Lake Road and Leopold Road. Also note the added railing to encourage pedestrians to cross at the crossing.

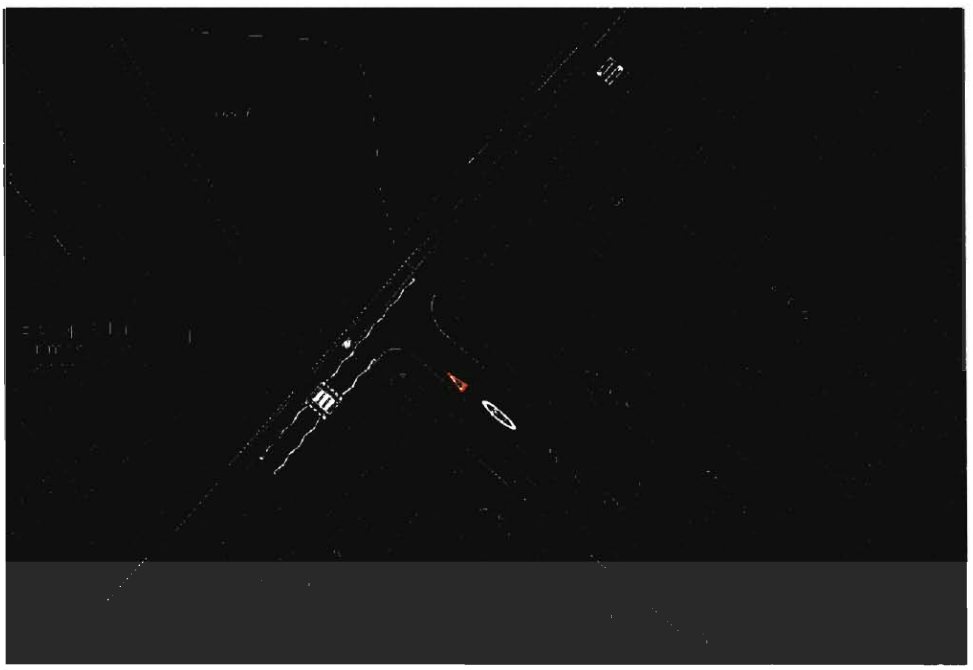


**Figure 5.5:** Recommended raised zebra crossing southeast of the intersection of Lake Road and Ricards Road, and across from the main entrance to Ricards Lodge and Park House schools. Also note the added railing to encourage pedestrians to cross at the crossing.

**Figure 5.6:** The intersection of Ricards Rd and Lake Rd., taken from the gates outside Park House and Ricards Lodge. Notice the child crossing from in between the cars parked at the intersection.

In addition to the pedestrian friendly zones, we also recommend changes to locations along school routes. First, as shown in Figure 5.7 on page 103, we recommend Merton construct a raised intersection with safe crossing points at the current intersection of Dora Road Leopold Road, and Leopold Ave. with the purpose of increasing visibility in the area for pedestrians and motorists. However, due to this poor visibility, a conventional crossing may not be possible. Instead, we recommend using a modified puffin crossing, which would warn drivers that they are approaching a red light. When a pedestrian activates the system, it would display red lights to traffic in all four directions, along with activating an orange flashing light on a sign reading 'red signal ahead,' positioned far enough before the intersection to allow adequate braking distance. After the red lights and warning lights have been turned on, the sensors would then track the motion of pedestrians and change the traffic lights to green after the intersection is clear. Because of parent concern and the high pedestrian and traffic volumes, a safe crossing

point at the Dora Road intersection should be given priority over all other proposed changes for the Ricards Lodge, Park House, and Bishop Gilpin area.

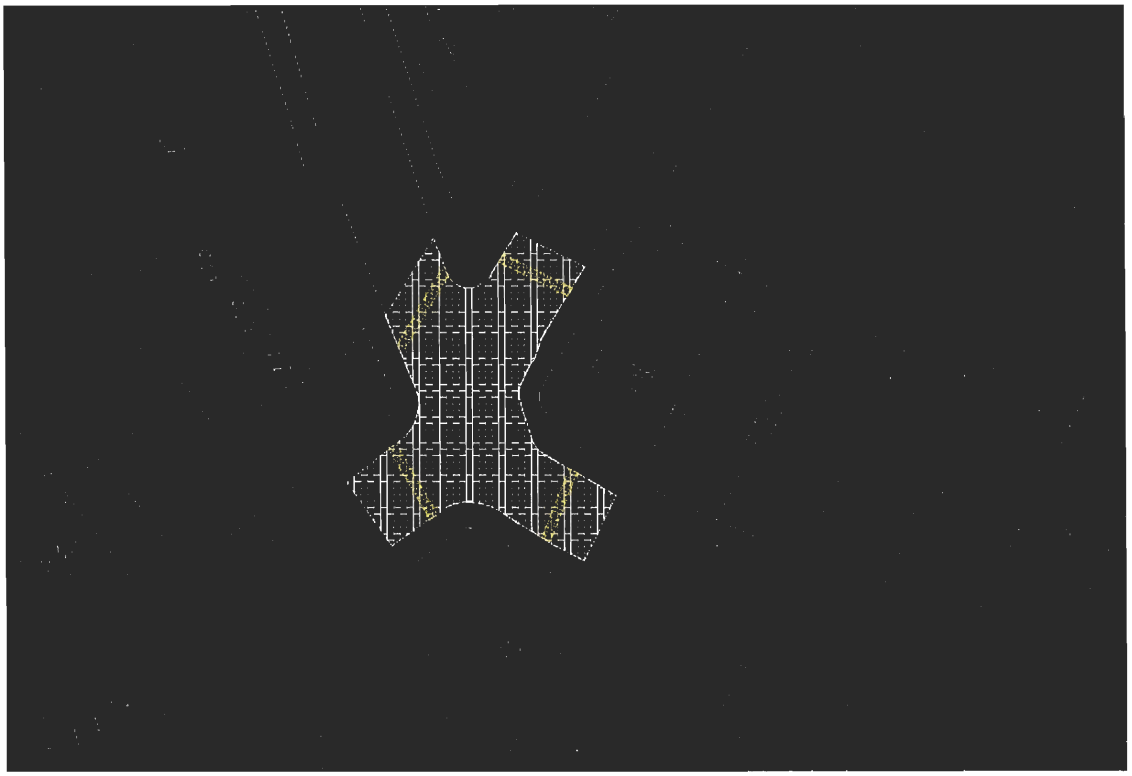


**Figure 5.7:** Recommended changes to the Dora Road – Leopold Road – Leopold Avenue intersection. On this map, Leopold Road runs from the north and turns southeast, Leopold Avenue enters from the southwest, and Dora Road from the northeast. The white are indicates the area we recommend raising to increase visibility. The yellow paths represent the areas where safe crossing points should be placed. The recommended warning sign is not shown on this map, but would be located on Leopold Road southeast of the intersection and before the road curves.

The second infrastructure improvement we recommend involves the addition of cycle lanes to the school area. The cycle lanes included in the pedestrian friendly areas must be extended a sufficient distance to allow students to make the majority of their journey along safe cycle routes. In particular, we recommend the borough extend the cycle lane proposed for Leopold Road, west at least as far as the intersection of Leopold and Strathearn roads. Equally important is extending the cycle route proposed for Lake Road southwest, until the intersection of Lake Road and Woodside. In order to not

restrict neighbourhood parking in the residential areas the proposed cycle routes run through, we recommend changing the pavement to include a cycle lane.

Finally, to compliment the improvements to cycle routes, the borough or schools should fund cycle storage facilities. Because Ricards Lodge, Park House, and Bishop Gilpin are located in close proximity to one another, they could all share a single cycle park.

*5.2.2 Hatfeild School Area*

In the Hatfield area, we recommend creating a safe pedestrian zone on Lower Morden Lane in front of Hatfeild, as well as crossing points near the Beverly roundabout. The pedestrian friendly area, shown in Figure 5.8, makes use of the existing extensive traffic-calming scheme already in place on Lower Morden Lane and involves certain key improvements described on the following page.

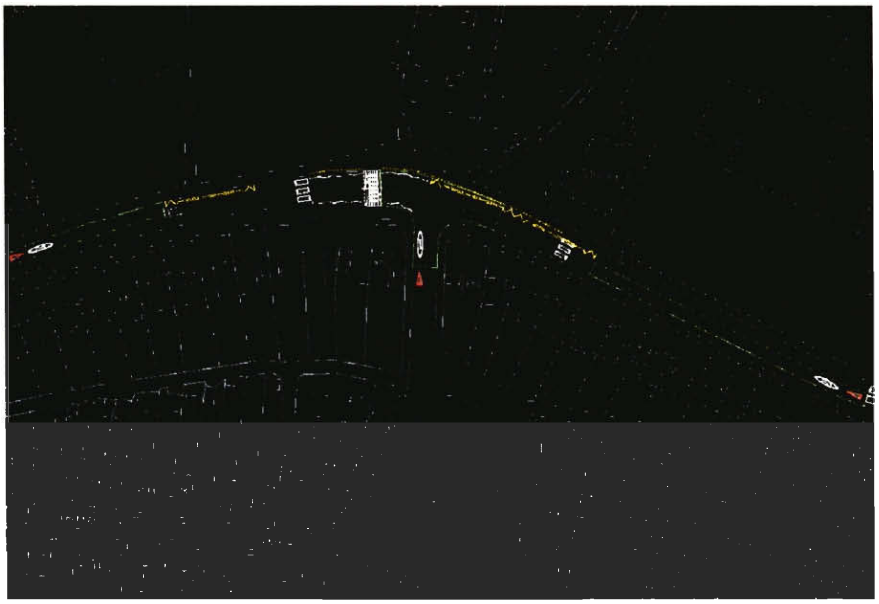


**Figure 5.8:** Pedestrian friendly zone on Lower Morden Lane in front of Hatfeild. Notice the green coloured asphalt that marks the start of the pedestrian friendly zone at all three points. Also notice the speed roundels and school warning signs painted at the beginning of each zone. We also recommend placing speed limit and school warning signs on posts near the locations they are painted on the roadway.

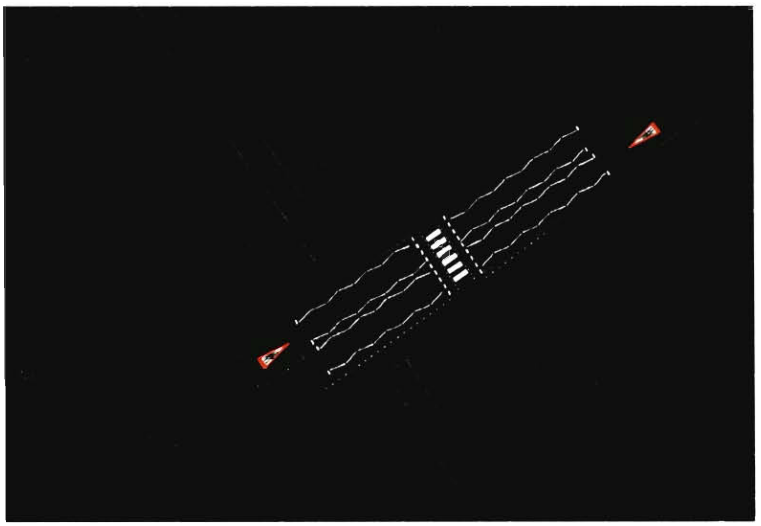


**Figure 5.9:** Recommended improvements to the zebra crossing located on Hillcross Avenue north of Hatfeild School. Notices the coloured asphalt sections, the school warning signs, and the added rails to encourage use of the crossing point.

- Coloured asphalt added to Lower Morden Lane at the bend in the road near house number 176 west of the school, as well as before the Garden Centre entrance east of the school

- Warning signs added at the beginning of the coloured asphalt zones

- Twenty mph speed limit in-between the coloured asphalt areas on Lower Morden Lane

- Twenty mph speed limit sign painted on the road shortly before each of the coloured asphalt zones

- A raised crossing point incorporating a zebra crossing along Lower Morden Lane in front of the school and a few metres west of the intersection of Lower Morden Lane and Cranmer Close

We also recommend three changes outside the pedestrian friendly area to popular school routes:

- Place coloured asphalt and a school warning sign on either side of the zebra crossing on Hill Cross Avenue, as shown in Figure 5.9

- Add safe crossing points to the ends of Hill Cross Ave and Lower Morden Lane near the Beverly roundabout, as shown on the next page in Figure 5.10

- Further study the popular routes children use in order to determine which footpaths would be most beneficial for the borough to improve for use by students walking or cycling to school, as well as any walking bus routes

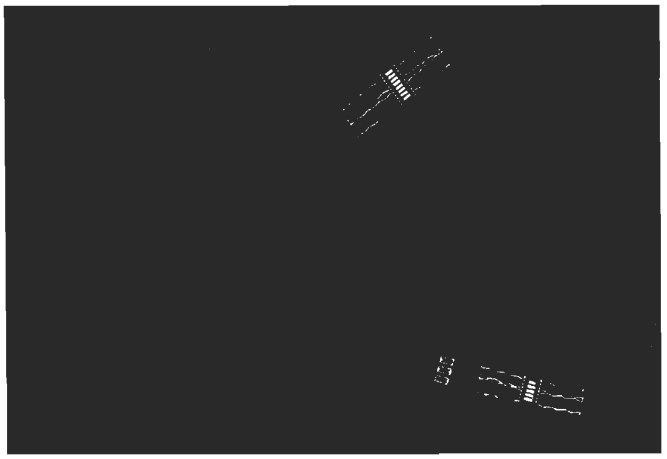


**Figure 5.10:** Recommended crossing improvements near the Beverly roundabout west of Hatfeild School.

5.2.3 Hollymount Area

At Hollymount, we recommend that the borough incorporate several improvements into a pedestrian friendly zone on Cambridge Road and consult with stakeholders to address one concern that could not be addressed with infrastructure improvements. The recommended pedestrian friendly zone is shown in Figure 5.11 on the next page and includes the improvements listed below:

- Coloured asphalt on Cambridge Road, as shown in Figure 5.11
- Warning signs located near each of the coloured asphalt sections
- A twenty mph speed limit on Cambridge Rd extending between the sections of coloured asphalt
- The 20 mph speed limit painted on the asphalt shortly before each of the coloured asphalt sections
- A raised intersection at the meeting point of Lambton and Cambridge roads, including crossing paths. A raised zebra crossing on Cambridge Road, as shown in Figure 5.11, in place of a speed hump
- A mandatory cycle path running along Cambridge Rd in front of the school

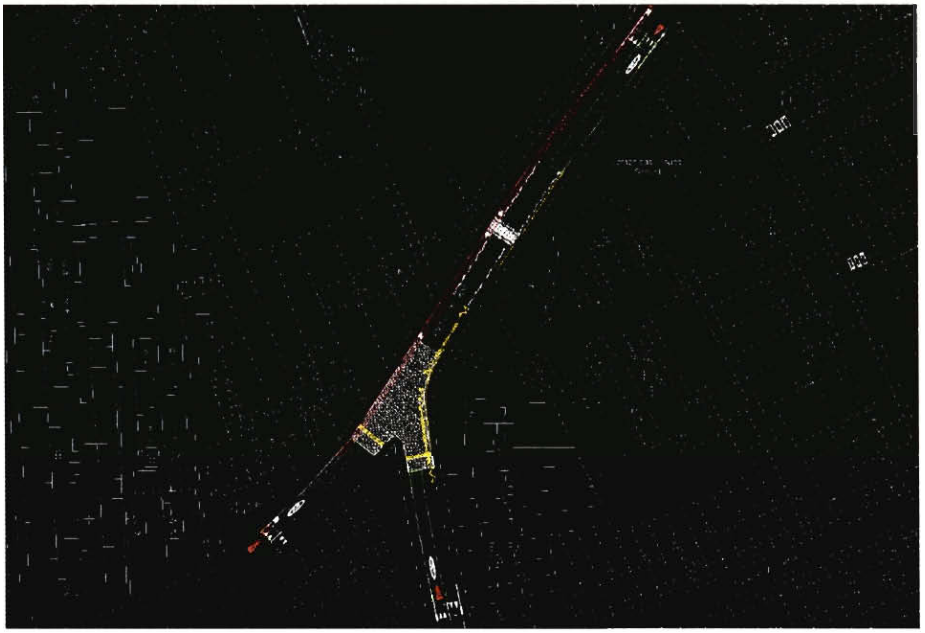


**Figure 5.11:** Recommended improvements to the Cambridge Road, in front of Hollymount School. The green areas represent sections of coloured asphalt used to denote the beginning of pedestrian friendly zones. The red area indicates a mandatory cycle lane. The white represents where we recommend raising the intersection of Lambton Road and Cambridge Road. The yellow paths represent safe crossing points. Also note the raised zebra crossing, with barriers around it to encourage pedestrians to cross over it, in front of the school.

We also recommend that the borough develop a cycle lane, or allow cycles to share the pavement with pedestrians, to connect the proposed mandatory lane in front of the school to the national cycle network that runs near the Raynes Park train station. Hollymount should also consider advising parents to use Pendarves Road, rather than the restricted zones in front of the school, to park in. The borough may assist this effort by adding signs on Pendarves Road indicating it is a pick up and drop off zone for children.

Although not directly related to infrastructure improvements, we recommend that the borough and the parents and teachers at Hollymount work together to resolve the

difficulties concerning the old Carriage schoolhouse renovation. Also, the needs of this development may affect infrastructure improvements in the area.

*5.2.4 Wimbledon Park Area*

For the Wimbledon Park area, we recommend a small pedestrian friendly zone, show in Figure 5.12, in front of the school. Because the area in front of Wimbledon Park is generally safe, the borough should give the addition of a pedestrian friendly zone at this school lower priority than at other schools. A pedestrian friendly zone for Wimbledon Park should include:

- Coloured asphalt on Havana Road, as shown in Figure 5.12, near the intersection of Havana and Lucen roads, at the intersection of Wellington and Havana, and near the intersection of Havana and Durnsford roads
- Warning signs on the eastern corner of the Havana and Wellington intersection and at the corner of Havana and Lucen roads
- A twenty mph speed limit on Havana Rd
- The speed limit painted on the asphalt near both warning signs

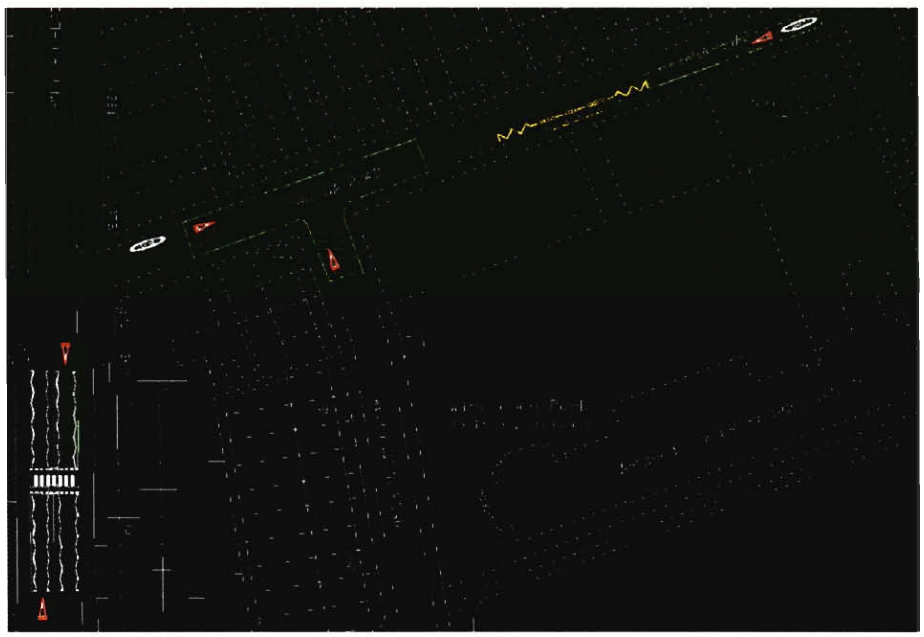


**Figure 5.12:** Recommended infrastructure improvements for Havana Road and Durnsford Road near Wimbledon Park School. Notice the coloured asphalt sections and school warning signs added at both ends of Havana Road and on the approaches to the zebra crossing. Also note the speed roundels added at the ends of Havana Road. Finally, although not shown, we recommend adding 20 mph speed limit signs on posts near the proposed speed roundels.

The borough should give a higher priority to considering ways to reduce lorry traffic in front of the school. Because Havana Road is not the only route to the works, located behind the school, it may be possible to negotiate an agreement with the drivers such that lorries take alternate routes during times when children are in the street.

To encourage cycling at Wimbledon Park, bike lanes are not suggested, however, students should be allowed to use the existing zebra crossing to safely cross Durnsford Road Also involving the zebra crossing on Durnsford Rd, we recommend that the crossing supervisor here extend her hours to include a half hour before school dismissal, as this is the time when many parents are arriving to pick up

## 5.3 Travel Initiatives

The following section contains travel initiative recommendations for each of the six schools involved in the project. The sections are divided by school grade level. Because the first schools have many of the same recommendations, first school recommendations are grouped together. The recommendations were based on background research, observation, and consultation data. Table 5.1 shows the primary and secondary initiative recommendations for each school.

**Table 5.1:** Primary and secondary transport initiative recommendations

| School | Primary Transport Recommendations | Secondary Transport Recommendations |
|---|---|---|
| **RL** | School Bus System | Cycling |
| **PH** | Cycling | Bus System (with RL) |
| **BG** | Walking Bus | Cycling with Parents |
| **HF** | Walking Bus<br>Cycling | None |
| **HM** | Cycling | Walking Bus |
| **WP** | Walking Bus | Cycling |

*5.3.1 Ricards Lodge*

Our major recommendation for Ricards Lodge is to continue with the process of setting up a public bus that would be dedicated to Ricards Lodge students only. The bus system should include:

- Bus stops separate from public bus stops
- Routes that should be accessible to the majority of students at Ricards Lodge
- Specified routes and a timetable so students will arrive to school on time
- Bus drivers trained to handle any problems dealing with school children
- Bus fares that are low

Our secondary recommendation for Ricards Lodge is a cycling program. For this program to be successfully implemented, the borough should:

- Develop cycle routes throughout the area
- Build secure cycle parking at the school
- Provide instructor for cycle training

The school should:

- Develop a contract that specifies rules and regulation of cycling to school for students and the school. Refer to Appendix C for a sample contract.
- Encourage students to attend a cycling safety class cycling to school

The students should:

- Attend a cycle training course
- Follow rules of conduct specified by school and training course
- Keep bicycles in good riding condition
- Lock bicycles at specified cycle sheds
- Wear bicycle helmet that meets regulations

*5.3.2 Park House*

A cycling program is our major recommendation for Park House middle school. Refer to the suggestions for RL for cycling improvements found in section 5.3.1.

Additional consultation should be done to determine if parents would allow their children to cycle to school. Also, the school may want to survey children to get an approximate number of students who would actually cycle. This number will help the school and borough design the size of the shed needed, as well as decide which areas need to be changed to make routes safer.

The secondary alternative we suggest for Park House is to be linked to the Ricards Lodge bus system. Students from Park House that are located on the Ricards Lodge bus route should be able to use this transport method.

*5.3.3 First School Overall Recommendations*

One of the alternatives that we recommend to all of the first schools is a walking bus system. To set up a walking bus each first school should:

- Contact the borough and work with Chris Braid to set up a program at their school
- Work with a transport official to set up designated routes to school
- Find funding to provide the children and parents with fluorescent vests, as well as umbrellas for the rain

Each conductor and driver should:

- Participate in a safety training course
- Pass a background check by the police
- Follow the route designated by the school and transport officials

Each child and parent should:

- Sign a contract with the school
- Learn the rules of the walking bus

The borough should:

- Help the school set up routes
- Risk assess the routes
- Keep on file names of all volunteers for insurance reasons
- Perform a background check on all volunteers
- Train volunteers on safety of walking buses

Cycling is an additional recommendation for each first school. The cycling initiative we propose would promote children cycling to school with supervision of parents. Cycling is recommended for the older children in the school due to age.

To promote cycle the borough should:

- Develop cycle routes throughout the area
- Build secure cycle parking at the school

- Provide instructor for cycle training

The school should:

- Encourage students and parents to attend a cycling safety class cycling to school

The students should:

- Attend a cycle training class
- Follow rules of conduct specified by school and training course
- Keep bicycles in good riding condition
- Lock bicycles at specified cycle sheds
- Wear bicycle helmet that meets regulations

The parents should:

- Supervise child on the route to school
- Attend a cycle training class with their child

Specifically for Hatfeild, we suggest that the school and borough work to design walking bus and cycling routes through the alleyways located throughout the area around the school. This suggestion was made by the headteacher at Hatfeild. Some alleyways may have to be paved or fixed to combat problems such as rain.

We realise that recommendations and alternative programs will not eliminate all car use to school. For students who still continue to be driven to school, we recommend a car-sharing program. To form a car sharing, the school should first send a letter home to parents supporting car sharing and providing information on how many other families there are in the area. If parents are interested, they should provide their names and contact information for the school to pass on to other parents. Interested parents should be given this contact information so they may start their own car-sharing scheme.

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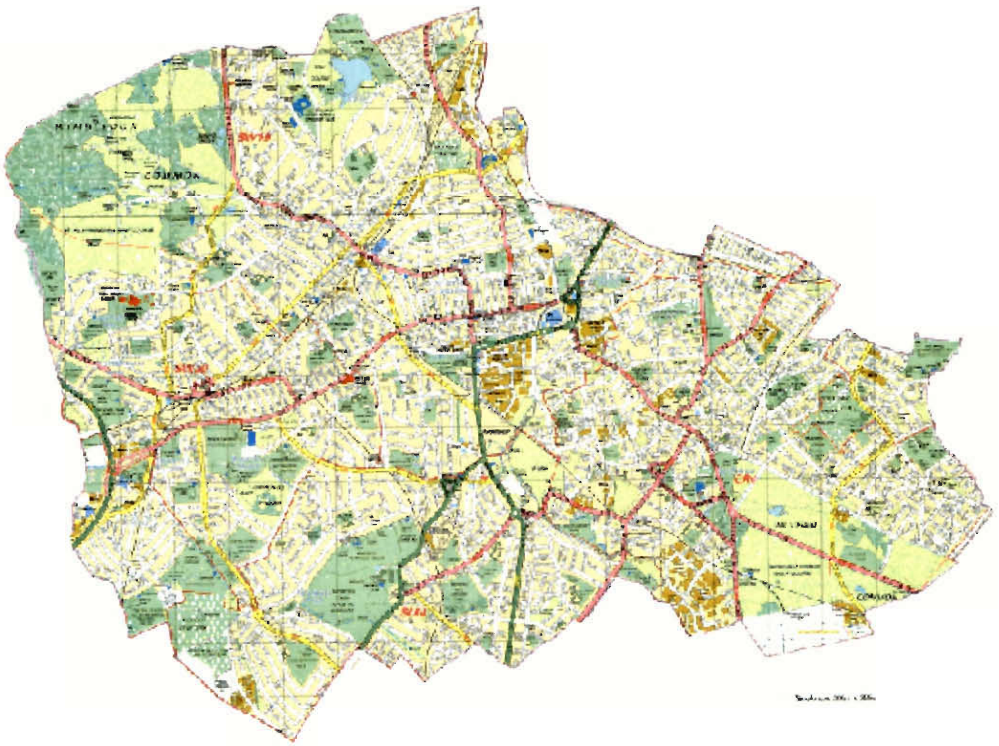
# 7.0 Appendix A: Maps of Merton

## Map of Merton



# 8.0 Appendix B: WPI Faculty Interviews

## Interview notes – Professor Malcolm FitzPatrick, 11 February 2000

Look into relationships of variables.
Need a relationship model to evaluate how changes will affect these variables.
Interviews → why do parents drive their kids?

- streets are fearful (gangs, traffic)
- laziness
- burden on parents to get up earlier
- child's route too long
- societal problem – no one walking

**Rational planning model…**

1. State goals and objectives
Goal – long range plans (usually unattainable)
Objectives – attainable solutions
Alternatives – list of ideas that can be installed as a plan (broad range)

- Need to evaluate these alternatives based on the criteria
- Does it meet standards?
- Is it feasible and practical?
- Does it meet cost bracket?

Pick the best alternative that has the most potential to decrease the problem and satisfies the criteria upon evaluation.

Systematic approach to rational planning → link all the variables. This is the basis to the approach (Introduction/Methodology)

- What are ALL the alternatives?
- Observe them on a 1st hand basis
- Test them through interviews/focus groups

Based on the data obtained, what can be learned? How should implementation take place?

- Should standards be changed?
- How strong is your case?
- Behavioural change is difficult – may effect success of plan.
- How will the town deal with the changes?

Implementation must be followed by frequent monitoring…

## Interview notes – Professor Vernon-Gerstenfeld, 9 February 2000

Professor Vernon-Gerstenfeld (VG) is currently a professor at WPI in the International studies department. She has a background in research methods and volunteered to help us with our methodology section.

Professor VG discussed our methodology section. We presenter her with our idea of conducting surveys at each of the schools to gather data. After we had finished presenting our methodology professor VG suggested that we should use a form of data collection more personal than surveys to collect our data. She suggested that we use focus groups as the basis for our data collection process. Professor VG gave to reasons for this:

First, she believed that the scope of our project was far too large, especially to be covered by surveys.

Second, the information we are looking for, opinions and suggestions, are not easily determined via surveys.

It was Professors VG's opinion that our methodology involves in-depth information from one or two schools. She reiterated the importance of focus groups several times and gave us a handout she had prepared for setting up and conduction focus groups.

# 9.0 Appendix C: Sample Cycle Permit

## **School Cycle Parking Permit** (Cycling to School)

(Schools should adapt this to their own circumstances)

### Cycling to School – Important Notice to Parents

While XXX school wishes to encourage an increase in the number of pupils cycling to school, the decision as to whether your child is competent to negotiate such hazards as may present themselves on the route from home to school and back must be yours and yours alone. XXX school does not accept liability for any consequences of that decision.

XXX school supports pupils who wish to cycle to school since it improves their health and fitness, reduces traffic outside the school making conditions safer for everyone, and benefits their general development. If you wish you son/daughter to cycle to school, would you please complete the form below. It is important that we know the numbers of children cycling to school even on an irregular basis in order that we can make appropriate security and safety arrangements.

Parents are advised to take out appropriate insurance cover as the school's insurance does not cover the loss or damage to bicycles.

### Cycle Helmets

Pupils are advised to wear a correctly fitted cycle helmet and use appropriate reflective clothing and bike lights when visibility is poor.

### Conditions for Cycling to School

1. All bicycles must be in a roadworthy condition.
2. Cyclists must ride sensibly and follow the Highway Code.
3. Approved cycle training must have been undertaken, where available.
4. All bicycles must be locked securely in the approved cycle parking area.

XXX school reserves the right to revoke this permit in the event that these conditions are ignored.

Name of Pupil..... Date of Birth.....

Cycle serial no..... Lock serial no.....

Cycle Make..... Model.....

Cycle colour..... Features.....

I accept the above conditions and request permission for (name) to be given access to cycle parking at the school.

Signed..... Date.....
Parent/Guardian

# 10.0 Appendix D: Cyclists Code

*Be courteous* - always cycle with respect to others, whether they are other cyclists, pedestrians, people in wheelchairs, horse riders, or drivers.

*When cycling on shared paths, please:*

- Give way to pedestrians
- Keep to your side of any white dividing line
- Be prepared to slow down or stop if necessary
- Do not expect to cycle at high speeds
- Be careful at junctions, bends, and entrances
- Remember that some people are hard of hearing or visually impaired
- Carry a bell and use it – do not scare people
- Do not surprise horses from behind

*When cycling on roads, please:*

- Always follow the highway code
- Fit and use lights in poor visibility
- Keep your bike roadworthy
- Be seen
- Pavements are for pedestrians – do not cycle on them unless designated
- Use your bell

(Cycling to School )

# 11.0 Appendix E: Key Stages

## Geography Key Stage One

**Geographical enquiry and skills**

1 In understanding geographical enquiry, pupils should be taught to:
- a ask geographical questions
- b observe and record
- c communicate in different ways

2 In developing geographical skills, pupils should be taught to:
- a use geographical vocabulary
- b use fieldwork skills
- c to use maps and plans at a range of scales
- d to make plans and maps at a range of scales

**Knowledge and understanding of places**

3 Pupils should be taught to:
- a identify and describe what places are like
- b identify and describe where places are
- b recognise how places have become the way they are and how they are changing
- c recognise how places compare with other places

**Knowledge and understanding of patterns and processes**

4 Pupils should be taught to:
- a make observations about where things are located

**Knowledge and understanding of environmental change and sustainable development**

5 Pupils should be taught to:
- a recognise changes in the environment
- b recognise how the environment may be improved and sustained

## Geography Key Stage Two

**Geographical enquiry and skills**

6 In understanding geographical enquiry, pupils should be taught to:
- a ask geographical questions
- b collect and record evidence
- c analyse evidence and draw conclusions
- d identify and explain different views that people hold about topical geographical issues
- e communicate in ways appropriate to the task and audience

7 In developing geographical skills, pupils should be taught:
- a to use appropriate geographical vocabulary
- b to use appropriate fieldwork techniques
- c to use maps and plans at a range of scales
- d to use secondary sources of information
- e to draw plans and maps at a range of scales
- f to use ICT to help in geographical investigations
- g decision-making skills

**Knowledge and understanding of places**

8 Pupils should be taught to:
- a identify and describe what places are like
- b to explain why places are like they are
- c to identify how and why places change

**Knowledge and understanding of environmental change and sustainable development**

9 Pupils should be taught to:
- a recognise how people can improve the environment or damage it, and how decisions about places and environments affect the future quality of people's lives
- b recognise how and why people seek to manage environments sustainably, and to identify opportunities for their own involvement

## PSHE Key Stage One

**Developing confidence and responsibility and making the most of their abilities**

1 Pupils should be taught:
  a to share their opinions on things that matter to them and explain their views
  b how to set simple goals

2 Pupils should be taught:
  a to take place in a debate about topical issues
  b what improves and harms their local, natural, and built environments and about some of the ways people look after them
  c to realise that money comes from different sources and can be used for different purposes

**Developing a healthy, safer lifestyle**

3 Pupils should be taught:
  a rules for, and ways of, keeping safe, including basic road safety, and about people who can help them to stay safe
  b how to make simple choices that improve their health and well-being

## PSHE Key Stage Two

**Developing confidence and responsibility and making the most of their abilities**

1 Pupils should be taught:
- a to talk and write about their opinions, and explain their views, on issues that affect themselves and society
- b to face new challenges positively by collecting information, looking for help, making responsible choices, and taking action

**Preparing to play an active role as citizens**

2 Pupils should be taught:
- a to research, discuss, and debate topical issues, problems, and events
- b why and how rules and laws are made and enforced, why different rules are needed in different situations and how to take part in making and changing rules
- c to resolve differences by looking at alternatives, making decisions, and making choices
- d that resources can be allocated in different ways and that these economic choices affect individuals, communities, and the sustainability of the environment

# 12.0 Appendix F: Sample Lesson Plan

| Learning Objectives | Possible Teaching Activities |
|---|---|
| Is our school on a busy road?<br>• About the character of a place<br>• To ask geographical questions<br>• Geographical terms | • Discuss with the children what makes a busy or quiet road.<br>• Arrange for the children to complete a simple traffic survey on the road outside the school.<br>• With the children's help, label a wall display of photographs of the road outside the school to show aspects related to traffic, e.g. road signs, road markings.<br>• Ask the children to think about their own road at home and decide whether it is quieter or noisier that the school road.<br>• Encourage the children to think up their own questions about traffic around school. |
| Is parking a problem?<br>• To carry out a small-scale investigation about parking in the local area | • Discuss with the children what makes a 'fair' test in a survey, e.g. times, place, frequency.<br>• With the children's help, design and carry out a survey of the number of cars parked in the street.<br>• Ask the children to consider questions like: Are the parked cars there all day? Where do people go when they park their cars? |
| How is parking controlled?<br>• To observe, recognise, and describe the main ways in which parking is controlled<br>• To undertake simple mapping tasks | • Discuss with the children the ways in which parking is controlled, e.g. yellow lines, pedestrian crossings, lollipop men and women.<br>• Visit the road outside school and ask the children either: to record on a map the various ways used to control traffic, or observe the parking controls.<br>• Discuss with the class the accuracy of the two methods. |
| How could the area be made safer for pupils?<br>• To express views about making an area safer<br>• To recognise ways of changing the environment | • Ask the children to identify methods of making an area safe, e.g. cycle ways, pavement, fencing, and to think about how the school grounds and other streets they know are made safe.<br>• Ask the children to make use of all the evidence they have collected (photographs and survey results) to write a letter to the transport department at the local council to ask about the possibility of a safety feature, e.g. pedestrian crossing, being constructed. |

## Learning Outcomes

- Identify the nature and character of a road in relation to traffic
- Ask questions about roads and traffic
- Compare different roads

## Points To Note

Speaking and listening: class discussions provide opportunities to reinforce geographical vocabulary and conventions for discussions, e.g. taking turns, listening to others.

Music: children could focus on noise and sound providing links to music.

- Organise a 'fair' survey and use ICT to record their findings, with the help of their teacher
- Discuss their findings and make some simple observations about them

Science: these activities could be linked with science by revising the concept of a 'fair' test and the way in which bias may occur.

IT: there are opportunities to link with IT when children use simple graphing software.

- Recall information about the road from memory
- Record information accurately on a plan or draw a mental map to show specific information

- Identify a variety of solutions, including drawing on experience in other areas
- Use a variety of evidence from different sources to present a case in the form of a letter

Literacy: children's letter writing could be supported with the use if a writing frame or pattern, e.g., I think there should be ... because...

Citizenship: writing to a council will introduce children to how decisions about the local environment are made.

# 13.0 Appendix G: Transport planning process for Santa Anna California

Step One: Staff responds to a request to solve a neighbourhood traffic intrusion problems. This step requires the town to investigate each request using a survey of residents.

Step Two: Members of the neighbourhood must collect the signatures of at least 35 percent of the residents in the area that the changes will affect. This area depends on the type of changes that are being considered; this area is established by the planners.

Step Three: The city sets up a traffic committee, made up of residents, who will help the city design a travel plan. During this step, the city is also required to notify all people in the affected area by mail, and to present plans at one neighbourhood meeting.

Step Four: The plan is submitted to a higher organisation for approval.

Step Five: The plan is brought before a neighbourhood meeting and discussed. This meeting gives opponents a chance to voice their concerns. Changes are made to the plan if any are presented.

Step Six: The neighbourhood is balloted to determine if residents truly support the proposed plan.

Step Seven: Ballots are tabulated and a decision is made to proceed or not. The city of Santa Ana requires a 66 percent majority before they will proceed with a plan.

Step Eight: The city again reviews the plan and finalises a proposal for the city council.

Step Nine: The council either accepts or rejects the plan.

Step Ten: The approved travel plan is implemented on a trial basis for a period of six months. A trial basis means that any changes made to the neighbourhood are as removable as possible; for example medians are painted on the road rather than being raised, and curbs are built out of easily removable and recyclable asphalt rather than the more difficult to remove concrete (30).

Step Eleven: The city performs a follow up study; it then distributes the results of this study before balloting the neighbourhood to determine if the plan is popular enough to be implemented.

Step Twelve: The changes suggested by the plans are either removed if the ballot fails, or constructed permanently if it passes.

Step Thirteen: This final step lays out the process for any further development needed in the neighbourhood.

# 14.0 Appendix H: Borough Official Interview Notes

## Pat Dunkley

Pat Dunkley is in charge of safety education for the borough of Merton.

During the interview she discussed aspects of her work and the Merton safety education program including:

- Merton is currently undergoing a best value analysis of all their programs, including safety education.
- In the past Merton has primarily used assemblies and one time events, such as walk to school week, to promote safety
- For the future Pat has proposed and had accepted by the Merton council a plan to focus on safety education within the curriculum
- Pat supplied a copy of her proposal to the borough that detailed her methodology for changing the system
- Pat also supplied us a copy of a survey she is administering to headteachers throughout the borough to determine their interests in education programs
- In the past Pat has worked with other boroughs to establish detailed guidelines for teachers to integrate safety education into their curriculum. (she supplied us a copy of this book)

## Chris Braidwood

Chris Braidwood is Assistant Safety Education Officer. The following is interview notes concerning walking buses.

- These are the steps to start a walking bus:

    1. School contacts the borough.
    2. Chris sends packet to school and talk to headteachers and parents. The packet includes: guidelines for escorts, police check form, walking bus contract, and school and borough responsibilities.
    3. School gathers data about parental involvement and designates an area/s to start a walking bus. School must also find funding.
    4. Borough or school sets up a route and borough risk assesses the route and route is finalised.

- The cost for each walking bus started is approximately £350

# 15.0 Appendix I: Headteacher and Teacher Governor Interview Questions

These questions were used as a guide when meeting with the headteachers/governors of the six schools. They were meant to establish a working relationship with these stakeholders and familiarise them with our objectives and role in formulating school travel plans for their school. They are also formulated to help us obtain information about the school, its policies and problems, and their desires with the school travel plans. The questions are open-ended and structured to lead into further discussion.

1. How familiar are you with the interest of school travel plan development within the borough of Merton? (This enables us to state the reason for our work and explain what we're doing and how it will benefit their school.)

2. You are one of the schools we're working with because you've shown interest in developing school travel plans for your school. What are your expectations from these developments? (This enables us to determine their interest level.)

3. Do you feel there are any problems around the school concerning traffic/safety/school travel? If so, what are they?

4. Is there a governor, teacher, or parent who would like to continue leading the developments of the school travel plans we recommend? How active are the PTA and governing bodies at the school?

5. How do you about supplementing the school travel plans into curriculum work? How do you think this would be possible?

6. Are there any school regulations that would limit us in any way when proposing the school travel plans? Budget? Cycle rack space?

7. Have there been any developments so far with beginning a school travel plan at the school?

# 16.0 Appendix J: Headteacher and Governor Interview Notes

## Corrine Harper (Ricards Lodge)

Corrine Harper is a teacher governor at Ricards Lodge. The following is notes from our interview with her on 28 March 2000 at 9:40 a.m.

- Suggestion of setting up a bus route at this school
- A lot of the students are from the Mitcham area and take the bus from Wimbledon
- Want to focus project on how we could set up a bus route for a trial run. We need to know where the children are arriving from and how many there are.
- Students from Colliers Wood can take the tube to Mitcham
- Surveys will have to be adjusted to ask students how they get to school, where they are coming from, which bus routes they use, where they get on and off and the direction, and any suggestions they have for additional school travel plans.
- The drop off is not a problem here since most of the girls walk to school from the bus stop. Some problems with the borough bus system is that the driver are not too keen about the number of students on the morning buses and fights arise due to peer pressure.
- Students would pay for this school bus, as they already pay if they take the bus.

## Richard King (Park House)

Richard is the headteacher at Park House. The following list is the notes from out meeting on 23 March 2000 at 10:30 a.m.

- Each school has a government body – management board of 16 people made up of parents, appointed local authority, community representatives, teachers - divided into sub-committees - we should talk to premises committee (building, parking…).
- PTA is very busy with fundraising.
- There have been efforts to get crosswalks - must be certain distance for car to stop (vision), not enough peak hour traffic, criteria doesn't fit the area.
- There is a lollipop person on Leopald Road
- Traffic wardens are needed to control traffic at crossings/parking/ticketing.
- Alternative for this school area could be TCMs such as narrow roads and chicanes.
- Speed limit around school is 30mph - too fast to stop when children are crossing (breaking distances).
- Historical composition of roads - were built narrow because schools not there yet.
- Designate school zones.
- Schools should be able to impose on the spot fines for parents parking in zigzags.
- Parking is a big problem - resident parking after 6 but during day all the spots are filled with commuter cars - cars park on road and sometimes on sidewalk.
- Expectations - different perspectives, background for cause and effect, present recommendations.
- Schools are statistically safe in London for # of accidents - 6 hospitalised in area, 2 knocked down - there are over 1500 children at those 3 schools
- Recommendation - double fines in school zones and add parking fines.

- There is a lack of consistency of police and traffic wardens - they only seldom fine people - after a few days things are back to normal
- Bicycle theft if high but there are cycle racks at Ricards Lodge(~50 bikes) but they still get stolen a lot.
- Park house has an inner courtyard that can fit 20 bikes
- Driving among students is not a problem because of age - must be 17 to get license and petrol/insurance cost is high
- Problem is money - principal routes receive money from the government, there is no unifying authority so schools must pay - hard to match funds
- Weather has a big effect on walking - 60% on a good day, 20% live too far away to walk
- Park House has the widest area from where children come (catchment area)
- Recommendation - car sharing
- Staff - 3 or 4 cycle, 1 motorbikes, rest by car

## Karen Darby (Park House)

Karen Darby is a parent of Park House students interested in helping set up school travel plans at that school. This interview took place on 6 April 2000 at 10:00.

- Need to change habits of parents and children.
- Must emphasise health- children don't have enough exercise.
- Children should not take the same route to school everyday because of stranger danger. There could be a neighbourhood watch.
- Children could carry mobile phones for security because there have been cases where children were approached. Suggestions: personal alarms, fluorescent clothing, teach at school about strangers
- When children are on break there is a lot less traffic.
- School needs better space for dropping off.
- Residents complain a lot about parking (send out letter). There are many spaces but for residents only.
- There could be a walking bus at Park House.
- Need cycle paths for bikes because roads are too narrow and have too many cars.
- Lorries come down roads even though they should not.
- Make the area pedestrian friendly.
- Campaign idea- signs near zigzags that will discourage parents from parking there.
    - Must be continuous and fresh, people don't see things when they up for awhile.
    - Put up more signs.
    - Posters with slogan such as only morons park in zigzag.
    - Money will come from state agents.
    - For all schools in the borough
    - Send out letters to all heads to participate.
    - For a year and re-evaluate.
    - Kids come up with slogan through a contest.
    - Once the campaign is up and running it will get more publicity and will be easier to manage.

- School caretaker can put up signs.
- Signs can have statistics.

- Make people realise that they will gain something.
- Pelican crossings should stop with no delay.
- Get more retired people to be lollipop men/women.

## Nikki Morgan (Bishop Gilpin)

Nikki Morgan is a teacher at Bishop Gilpin. We met with her because the headteacher was unavailable. Our meeting took place on 28 March 2000 at 10:30 a.m. The following is our interview notes.

- The problem with this school is parking and the road use (between the 3 schools).
- A lot of the parking in the area is due to the commuters who park away from Wimbledon station and commute since the parking system changed.
- School has a nursery and children to year 3 (ages 3-8).
- Walking buses were suggested as a transport initiative.
- Parents will take responsibility to walk children to school and discourage the use of cars.
- Target year 2 students to start the project and then develop it for other years.
- This school will expand to a neighbouring block when middle schools become non-existent.
- Goal is to set up of plan for summer term this year.
- Most of the children seem to be located near the Leopold residential areas behind the school.

## Greg Parker (Hatfeild)

Greg Parker is the headteacher at Hatfield. Our meeting with him took place 4 April 2000 at 10:30 a.m. The following is a list of interview notes.

- Roads around school are heavily congested.
- There are bigger schools around the area that contribute to problem.
- A lot of people that live close drive their child to school.
- Responded well to Walk to School Week.
- They have a large car park so it's easier for parents to drop off children (about 30 cars fit).
- Will change to 3-11 school = more children and more parents.
- Car park will then be a playground.
- Lower Morden Road has speed humps.
- Hillcross Ave. is fast road because there are not many bends in the road.
- There is no lollipop men/women but they have zebra crossing.
- There is a network of alleys that can be used as routes or shortcuts.
- The priority of parents is to have safer routes.
- Suggested looking at Cardinal Ave, Lower Morden Rd, and Hillcross Ave.
- School has 3 main entrances
- There are no bicycle facilities but there is room to build one.

- Occasionally students ride bike to school.
- Hatfield has a good PTA, but mainly for fundraising/social events.
- Many parents want cycling.
- Cycle routes are quite limited.
- No cycle park near school.
- Must wear cycle helmets.
- Reasons for driving includes having children at other schools and working parents.
- Majority of students live within a mile of school.

## Valerie Martin (Hollymount)

Valerie Martin is the headteacher at Hollymount School. Our meeting took place on 27 March 2000 at 11:00 a.m.

- School broken up into nursery (E3/E4) and years 1, 2 and 3 (reception).
- In past, walk to school day and parent walking system attempts failed. (At first, program seemed to be going well, then lost interest).
- School has a PTA and governing body. PTA is mostly for fundraising, but would be best suited to deal with for project b/c the governing body wouldn't want responsibility.
- Pick up and parking are the major problems as seen by the school.
- Ice cream vans come by during pick up and take up additional spaces.
- Parents need to enter school area to drop off and pick up children.
- 1/3 of students – English is their 2nd language.
- Most children live close to school; there are selection criteria. Most live toward the railway station south of school towards Wimbledon Park - down the hill.
- Possibility of narrowing road, adding give way signs, reducing speeds, putting in a zebra crossing...Kingston active in this matter.
- Education initiatives could be included in IT – information technology (statistics, etc.) and PSHE – physical social health education – implement into school curriculum (may be possible)

## Maria Halpin (Hollymount)

Maria Halpin is a parent governor at Hollymount. Valerie Martin suggested this interview. These are the interview notes from our meeting on 31 March 2000 at 1:30 p.m.

- Recently there was an accident on Worple Road, this road has been a problem for years.
- There is no place for cycles at school but many parents would like to cycle with their children because that is how they get to work. Year 2 and 3 could possibly cycle. Very hilly area though.

- Start small.
- Raynes Park is a bad area in the morning. A lot of children take a bus to the area but there are no crosswalks
- Walking bus - 3 major areas - Wimbledon/Edgware, West Wimbledon near Railroad and below the school.
- Need a zebra crossing on Worple Rd in between two existing ones – dangerous crossing area for all neighbouring schools.
- Want walking bus and cycling for everybody except nursery - may be good to ask afternoon nursery to get any problems in the middle of the day - why? Why not?
- Parking is a big problem.
- Raynes Park is a good meeting area for a walking bus.

## June Pack (Wimbledon Park)

June Pack is the headteacher at Wimbledon Park. The following is our interview notes from this meeting on 30 March 2000 at 2:00 p.m.

- Wimbledon Park is an Eco school.
- Sent out newsletter to get volunteers for walking bus, already have 6 parents and 1 teacher.
- Majority of students live around school, a lot drive or walk.
- Café in area used by taxi drivers and deliveries to nearby buildings are dangerous (lorries).
- Parents concerned about main road and Havana Rd because of parking and congestion.
- Exercise for health.
- Wants a walking bus only TO school.
- Have lollipop guard on Durnsford Road but people complain because traffic builds up (part of LEA – Local Education Authority).
- Morning is a big problem between 8:30 and 9:30 - parents park on yellow area.
- Has a children's council that comes in on a regular basis.
- Curriculum ideas- competition.
- Have an eco board (maybe a safety/School Travel Plan board too).
- Not a lot of time for new programs - use cross curriculum (English, Math, ITC).
- Ages 3-8 at this school.
- Badge/certificates for good things.
- A lot of parents are already very keen.
- Areas to concentrate on are SW18 Wimbledon and SW19 Wandsworth.

# 17.0 Appendix K: Teacher Letter

5 April 2000

To: Bishop Gilpin, Hatfield, Hollymount, and Wimbledon Park Teachers
Re: School Travel Plans Surveys

We are university students working with the Merton Departments of Transport and Education to aid in the development of travel plans for six schools within the borough. We would appreciate your cooperation in distributing the enclosed survey to the students in your class. We would like the students to complete the survey as a homework assignment with the help of their parents.

The goal of our project is to initiate school travel plans unique to your school that will increase the safety and well being of the students. We will use the survey answers to determine parental concerns and formulate a benchmark for your school to help Merton measure the success of the travel plans in the future.

Please have the students return the surveys in 2 to 3 days and have them brought to the main office. If you have any questions, comments, or would like to become involved in this project, please contact us via e-mail at kpacheco@wpi.edu.

Thank you for your time and cooperation.

Sincerely,

Lynn Michalenka
Kathy Pacheco
Christian Pedersen

31 March 2000

To: Park House and Ricards Lodge Teachers
Re: School Travel Plans Student Survey

We are students working with the Merton Departments of Transport and Education to formulate travel plans for six schools within the borough. We would appreciate your cooperation in distributing the enclosed survey to the students in your class. The survey should only take about five minutes of class time.

The goal of our project is to create school travel plans unique to your school that will increase the safety and well being of the students. We will use the survey answers to formulate a benchmark for your school that will help Merton determine the success of the travel plans after they are implemented. Please explain the purpose of the survey to the class and help them with any questions they might have.

When completed, please collect the surveys and return them to the main office. If you have any questions, comments, or would like to become involved in this project, please contact us via e-mail at kpacheco@wpi.edu.

Thank you for your time and cooperation.

Sincerely,

The Merton School Travel Team
Lynn Michalenka
Kathy Pacheco
Christian Pedersen

5 April 2000

To: Hollymount Teachers
Re: School Travel Plans Surveys

We are university students working with the Merton Departments of Transport and Education to aid in the development of travel plans for six schools within the borough. We would appreciate your cooperation in distributing the enclosed surveys to the students in your class so that they may bring them home to their parents.

The goal of our project is to initiate school travel plans unique to your school that will increase the safety and well being of the students. We will use the survey answers to determine parental concerns about school travel.

Please have the students return the surveys in two to three days and have them brought to the main office. If you have any questions, comments, or would like to become involved in this project, please contact us via e-mail at kpacheco@wpi.edu.

Thank you for your time and cooperation.

Sincerely,

Lynn Michalenka
Kathy Pacheco
Christian Pedersen

# 18.0 Appendix L: Student Surveys

RL, PH, BG, HF, HM, and WP Student Survey


**1.)** How old are you?_____

**2.)** Are you Male or Female?

- ☐ Male
- ☐ Female

**3.)** How do you get to school most often?
(please tick only one)

- ☐ Walk
- ☐ Cycle
- ☐ Get a lift (car)
- ☐ Take the bus
- ☐ Take the train
- ☐ Other (please tell us)_____

---

**4.)** How far from school do you live?
(please tick only one)

- ☐ 0 – ½ kilometres
- ☐ ½ - 1 kilometres
- ☐ 1 - 2 kilometres
- ☐ 2 - 3 kilometres
- ☐ 3 or more kilometres
- ☐ Not sure

**5.)** Of the following methods, which ways would you like to use to travel to school?
(tick all that apply)

- ☐ Walk
- ☐ Cycle
- ☐ Get a lift (car)
- ☐ Take the bus
- ☐ Take the train
- ☐ Other (please tell us)_____

**6.)** Why do you use the method you indicated in question 3? Please explain.

_____

_____

Thank you for completing our survey.

**7.)** Please indicate the name of the street you live on. _____

**Please complete questions 8 through 11 only if you use a bus for all or a part of your travel to and from school. If you do not use buses, please proceed to question 12 on the back of this page.**

**8.)** Which bus number(s) do you take to school?_____

**9.)** Where do you get on the bus in the morning? (Please give the name of the street that your stop is located on.)_____

**10.)** Which bus number(s) do you take home from school?_____

**11.)** Where do you get off the bus in the afternoon? (Please give the name of the street that your stop is located on.) _____

## Turn Over

**12.)** If you have any suggestions for improving school travel for you and your classmates or comments on the current system, please indicate these in the space provided below.

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

Thank you for completing our survey.

# 19.0 Appendix M: Parent Surveys

**Bishop Gilpin Year 2 Parent Survey** March 30, 2000

The Borough of Merton Transport and Education Departments are interested in formulating school travel plans for schools in the Borough. We are a group of university students working with the Borough to develop these plans for several schools. We are examining the traffic situation around each school and are interested in your thoughts and concerns about the current transport system. At Bishop Gilpin, our emphasis will be to establish a walking bus program for year two students. This program serves as a trial run, which will test the possibility of establishing walking bus routes for the entire school.

Walking buses have been successful in several communities throughout Britain. A walking bus is a group of children led to and from school by two or more parents. Volunteer parents work to a rota, generally leading a group of students once or twice a week. Parents, therefore, only have to make one or two trips to school each week rather than ten. Other benefits of walking buses include less congestion around the school, better parking conditions, and safer journeys to school.

We would appreciate your time in assisting your child with his or her survey and completing the following questions. Please return these surveys to school with your child as soon as possible. Thank you for your time and co-operation.

Name _____

Address (street name only) _____

**1.)** Would you let your child use a walking bus system if one were implemented?

❑ Yes
❑ No

If no, please explain why. _____
_____
_____

**2.)** Would you be willing to volunteer to supervise a walking bus one or two days a week?

❑ Yes
❑ No

**3.)** If a committee were formed to set up and organise a walking bus system, would you be interested in participating in it?

❑ Yes
❑ No

**4.)** Are there any specific intersections, streets, or other places around Bishop Gilpin where you feel there is a safety problem?

❑ Yes

❑ No

- If yes, please explain where the place is and the problem_____

_____

_____

_____

_____

5.) Do you have any specific reasons for the way your child travels to school?

❑ Yes

❑ No

- If yes, please explain_____

_____

_____

**6.)** There will be a short meeting at Bishop Gilpin on Monday, April 10th at 9:00 a.m. for parents of year two students to discuss the topic of school travel. Specifically, the meeting will focus on implementing walking bus routes for your children. Will you be able to attend this meeting?

❑ Yes
❑ No

**7.)** We would appreciate any comments or suggestions you may have concerning walking buses for Bishop Gilpin. (Please use the lines below)

_____

_____

_____

Thank you for taking the time to complete our survey.

**Hatfield Parent Survey** April 2000

The Borough of Merton Transport and Education Departments are interested in formulating school travel plans for schools in the borough. We are a group of university students working with Merton to develop these plans for several schools. We are examining the traffic situation around each school and are interested in your thoughts and concerns about the current transport system at Hatfeild. This survey should take 10 - 15 minutes of your time.

In addition to a review of traffic and safety concerns, we are also examining the feasibility of a walking bus. A walking bus is a group of children led to and from school by two or more parents. Volunteer parents work to a rota, generally leading a group of students once or twice a week. Parents, therefore, only have to make one or two trips to school each week rather than ten. Other benefits of walking buses include: less congestion around the school, better parking conditions, and safer journeys to school. Walking buses have been successful in several communities throughout Britain.

We would appreciate your time in assisting your child with his or her survey and completing the following questions. All responses are strictly confidential. If you do not feel comfortable answering a question skip it and continue to the next. Please return these surveys to school with your child as soon as possible. Thank you for your time and co-operation.

Address (street name only) _____

**1.**) Are there any specific intersections, streets, parking areas, or other places around Hatfield school where you feel there is a safety problem?

- ❑ Yes
- ❑ No
  - If yes, please explain where the place is and the problem._____

_____

_____

_____

**2.**) Do you have any specific reasons for the way your child currently travels to school?

- ❑ Yes
- ❑ No
  - If yes, please explain. _____

_____

_____

_____

**3.)** Would you consider cycling to school with your child?

❑ Yes
❑ No

- If no, please explain why not_____
_____
_____
_____

**4.)** Would you let your child use a walking bus system if one were implemented?

❑ Yes
❑ No

- If no, please explain why not_____
_____
_____
_____

**5.)** Would you be willing to volunteer to supervise a walking bus one or two days a week?

❑ Yes
❑ No

- If you are interested in volunteering please include your name and address so the school can contact you. _____
_____
_____
_____

**6.)** If a committee were formed to set up and organise a walking bus system, would you be interested in participating in it?

❑ Yes
❑ No

Thank you for taking the time to complete our survey.

**Hollymount Parent Survey** April 2000

The Borough of Merton Transport and Education Departments are interested in formulating school travel plans for schools in the borough. We are a group of university students working with Merton to develop these plans for several schools. We are examining the traffic situation around each school and are interested in your thoughts and concerns about the current transport system at Hollymount. This survey should take about 10 minutes of your time.

In addition to a review of traffic and safety concerns, we are also examining the feasibility of a walking bus. A walking bus is a group of children led to and from school by two or more parents. Volunteer parents work to a rota, generally leading a group of students once or twice a week. Parents, therefore, only have to make one or two trips to school each week rather than ten. Other benefits of walking buses include less congestion around the school, better parking conditions, and safer journeys to school. Walking buses have been successful in several communities throughout Britain.

We would appreciate your time in completing the following questions. All responses are strictly confidential. If you do not feel comfortable answering a question skip it and continue to the next. Please return these surveys to school with your child as soon as possible. Thank you for your time and co-operation.

Address (street name only) _____

**1.)** Are there any specific intersections, streets, parking areas, or other places around Hollymount school where you feel there is a safety problem?

❑ Yes
❑ No

- If yes, please explain where the place is and the problem._____

_____

_____

_____

**2.)** Do you have any specific reasons for the way your child currently travels to school?

❑ Yes

❑ No

- If yes, please explain _____

_____

_____

**3.)** Would you consider cycling to school with your child?

- ❑ Yes
- ❑ No

- If no, please explain why not _____

_____

_____

_____

**4.)** Would you let your child use a walking bus system if one were implemented?

- ❑ Yes
- ❑ No

- If no, please explain why not_____

_____

_____

_____

**5.)** Would you be willing to volunteer to supervise a walking bus one or two days a week?

- ❑ Yes
- ❑ No

- If you are interested in volunteering please include your name and address so the school can contact you._____

_____

_____

_____

**6.)** If a committee were formed to set up and organise a walking bus system, would you be interested in participating in it?

- ❑ Yes
- ❑ No

Thank you for taking the time to complete our survey.

**Wimbledon Park Parent Survey** April 2000

The Borough of Merton Transport and Education Departments are interested in formulating school travel plans for schools in the Borough. We are a group of university students working with the Borough to develop these plans for several schools. We are examining the traffic situation around each school and are interested in your thoughts and concerns about the current transport system. At Wimbledon Park, our emphasis will be to establish a walking bus program.

Walking buses have been successful in several communities throughout Britain. A walking bus is a group of children led to and from school by two or more parents. Volunteer parents work to a rota, generally leading a group of students once or twice a week. Parents, therefore, only have to make one or two trips to school each week rather than ten. Other benefits of walking buses include less congestion around the school, better parking conditions, and safer journeys to school.

We would appreciate your time in assisting your child with his or her survey, which is attached, and completing the following questions. Please return these surveys to school with your child as soon as possible. Thank you for your time and co-operation.

Name _____

Address (street name only) _____

**1.)** Would you let your child use a walking bus system if one were implemented?

❑ Yes
❑ No

- If no, please explain why._____

_____

_____

_____

**2.)** Would you be willing to volunteer to supervise a walking bus one or two days a week?

❑ Yes
❑ No

**3.)** If a committee were formed to set up and organise a walking bus system, would you be interested in participating in it?

❑ Yes
❑ No

**4.)** Are there any specific intersections, streets, or other areas around Wimbledon Park school where you feel there is a safety problem?

❑ Yes

❑ No

- If yes, please explain the place is and the problem. _____

_____

_____

_____

**5.)** Do you have any specific reasons for the way your child travels to school?

❑ Yes

❑ No

- If yes, please explain._____

_____

_____

_____

_____

**6.)** We would appreciate any comments or suggestions you may have concerning walking buses for Wimbledon Park school. (Please use the lines below)

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

Thank you for taking the time to complete our survey.

# 20.0 Appendix N: Parent Interview Questions

These questions were used as a guide when meeting with select parents of several of the six schools. They are meant to establish a friendly relationship with these stakeholders and familiarise them with our objectives and role in formulating school travel plans for their child's school. They are also meant to get information for us about their school travel concerns. They are open-ended and are structured to lead into further discussion.

1. How familiar are you with the interest of school travel plan development within the borough of Merton? (This enables us to state the reason for our work and explain what we're doing and how it will benefit their school.)

2. You are one of the schools we're working with because you've shown interest in developing school travel plans for your school. What are your expectations from these developments? (This enables us to determine their interest level.)

3. Do you feel there are any problems around the school concerning traffic/safety/school travel? If so, what are they?

4. Is there a governor, teacher, or parent who would like to continue leading the developments of the school travel plans we recommend? How active are the PTA and governing bodies at the school?

8. How do you about supplementing the school travel plans into curriculum work? How do you think this would be possible?

9. Are there any school regulations that would limit us in any way when proposing the school travel plans? Budget? Cycle rack space?

10. Have there been any developments so far with beginning a school travel plan at the school?

# 21.0 Appendix O: Parent Interview Notes

## Karen Darby (Park House)

Karen Darby is a parent of Park House students interested in helping set up school travel plans at that school. This interview took place on 6 April 2000 at 10:00.

- Need to change habits of parents and children.
- Must emphasise health- children don't have enough exercise.
- Children should not take the same route to school everyday because of stranger danger. There could be a neighbourhood watch.
- Children could carry mobile phones for security because there have been cases where children were approached. Suggestions: personal alarms, fluorescent clothing, teach at school about strangers
- When children are on break there is a lot less traffic.
- School needs better space for dropping off.
- Residents complain a lot about parking (send out letter). There are many spaces but for residents only.
- There could be a walking bus at Park House.
- Need cycle paths for bikes because roads are too narrow and have too many cars.
- Lorries come down roads even though they should not.
- Make the area pedestrian friendly.
- Campaign idea- signs near zigzags that will discourage parents from parking there.
    - Must be continuous and fresh, people don't see things when they up for awhile.
    - Put up more signs.
    - Posters with slogan such as only morons park in zigzag.
    - Money will come from state agents.
    - For all schools in the borough
    - Send out letters to all heads to participate.
    - For a year and re-evaluate.
    - Kids come up with slogan through a contest.
    - Once the campaign is up and running it will get more publicity and will be easier to manage.
    - School caretaker can put up signs.
    - Signs can have statistics.

- Make people realise that they will gain something.
- Pelican crossings should stop with no delay.
- Get more retired people to be lollipop men/women.

# 22.0 Appendix P: Focus Group Questions

These are questions used for a focus group meeting with Bishop Gilpin year 2 parents. The purpose of the focus group was to discuss the feasibility of implementing a walking bus at Bishop Gilpin for year 2 students. The following is the set of questions we used to create discussion among the parents.

1. Are there any specific concerns about the implementing a walking bus at Bishop Gilpin?

2. Are there any questions about the implementation process?

3. As parents, do you have any suggestion or concerns about the safety of the area? Are there any crossings or intersections that need improvement?

4. Are there any suggestions for motivating parents and children to use alternative methods of transport?

# 23.0 Appendix Q: Focus Group Notes

The parent focus group at Bishop Gilpin took place on 10 April 2000 at 9:00 a.m. Four parents and the headteacher attended the meeting. The meeting focused on the feasibility of a walking bus and suggestions for improving school travel. The following is notes from this meeting.

- Concerns and Considerations from parents about walking buses:
  - There is already a walking bus for 1 area- 3 to 4 families/ get there in 20 min./ with very young children. This was set up by these parents It is hard to stop traffic to cross road with big group of children.
  - Walking takes a lot of time especially if you have children in nursery- have to come back in middle of day.
  - One parent has a child that has walked since 3 ½- small children enjoy walking.
  - Children like to walk rain or shine.
  - Children must be trained to look after belongings (such as vest).
  - Need space for umbrellas and vests.
  - Scheduling may be hard- not the same schedule every week.
  - Need a coordinator.
  - Many parents have children at different schools.
  - Make sure a walking bus is explained well in any information sent out to parents.
  - Pilot run should include more years.
  - Publicise- with contact info to join
  - Need to know what to do if child is sick/ get in touch with co-ordinator.
  - Bishop Gilpin has funding from Wimbledon tennis.
- Concerns about school travel:
  - If you come by car there should be safe parking.
  - Parents could park and walk- Church Hill and opposite crossing are good places.
  - Hand out leaflets to parents about zigzag parking.
  - There could be volunteer parents to yell at people who park on zigzags.
  - Education for parents and children is needed.
  - Takes same amount of time to drive as does walking.
  - Need to identify safe places to cross.
  - Kings Road to Queens Rd. is difficult to cross and Aschem Rd.- drivers aren't sure where to go- very dangerous.

# 24.0 Appendix R: Survey and Observation Results

This section contains graphs and tables that were not included in the data analysis section. On the graphs and tables, RL= Ricards Lodge, PH= Park house, BG= Bishop Gilpin, HF= Hatfeild, HM= Hollymount, and WP= Wimbledon Park.

**Table 1:** This table shows the numerical values for the current transport methods of students at each school. The numbers stand for the percentage of students that use that transport method. The last column shows the number of students who responded to the survey.

| School | Walk | Cycle | Car | Bus | Train | Other | Total Respondents |
|---|---|---|---|---|---|---|---|
| RL | 19% | 1% | 15% | 52% | 13% | 1% | 410 |
| PH | 32% | 0% | 56% | 10% | 2% | 1% | 213 |
| BG | 59% | 0% | 40% | 1% | 0% | 0% | 130 |
| HT | 45% | 0% | 52% | 2% | 0% | 0% | 42 |
| HM | 43% | 1% | 55% | 1% | 1% | 1% | 154 |
| WP | 68% | 0% | 32% | 0% | 0% | 0% | 20 |

**Table 2:** This table shows the numerical values for the desired transport methods of students at each school. The numbers stand for the percentage of students that desire to use that transport method. The last column shows the number of students that responded to the survey.

| School | Walk | Cycle | Car | Bus | Train | Other | Total Respondents |
|---|---|---|---|---|---|---|---|
| RL | 21% | 7% | 51% | 29% | 15% | 4% | 410 |
| PH | 29% | 45% | 33% | 6% | 6% | 4% | 213 |
| BG | 42% | 45% | 26% | 7% | 4% | 2% | 130 |
| HF | 69% | 29% | 31% | 10% | 0% | 0% | 42 |
| HM | 49% | 38% | 29% | 5% | 5% | 2% | 154 |
| WP | 55% | 25% | 20% | 0% | 0% | 0% | 20 |

**Table 3:** This table shows the percentage of car users that chose each desired transport method. The percentages do not equal 100% because students were allowed to choose more than one response

| School | Walk | Cycle | Car | Bus | Train | Other | Total Car Users |
|---|---|---|---|---|---|---|---|
| RL | 16% | 10% | 63% | 25% | 8% | 2% | 63 |
| PH | 23% | 47% | 38% | 12% | 2% | 3% | 117 |
| BG | 23% | 50% | 36% | 10% | 10% | 6% | 52 |
| HF | 59% | 32% | 50% | 9% | 0% | 0% | 22 |
| HM | 41% | 30% | 38% | 6% | 4% | 0% | 82 |
| WP | 33% | 17% | 67% | 0% | 0% | 0% | 6 |

.

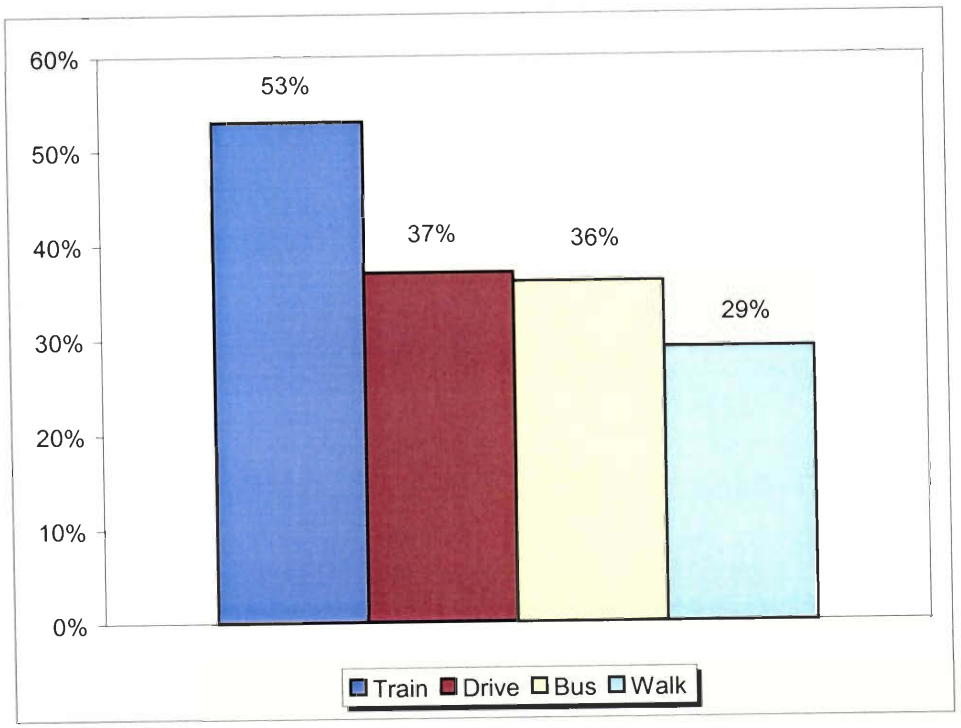



**Figure 1:** This graph represents the percentage of students per transport method that have had a fright travelling to or from school.

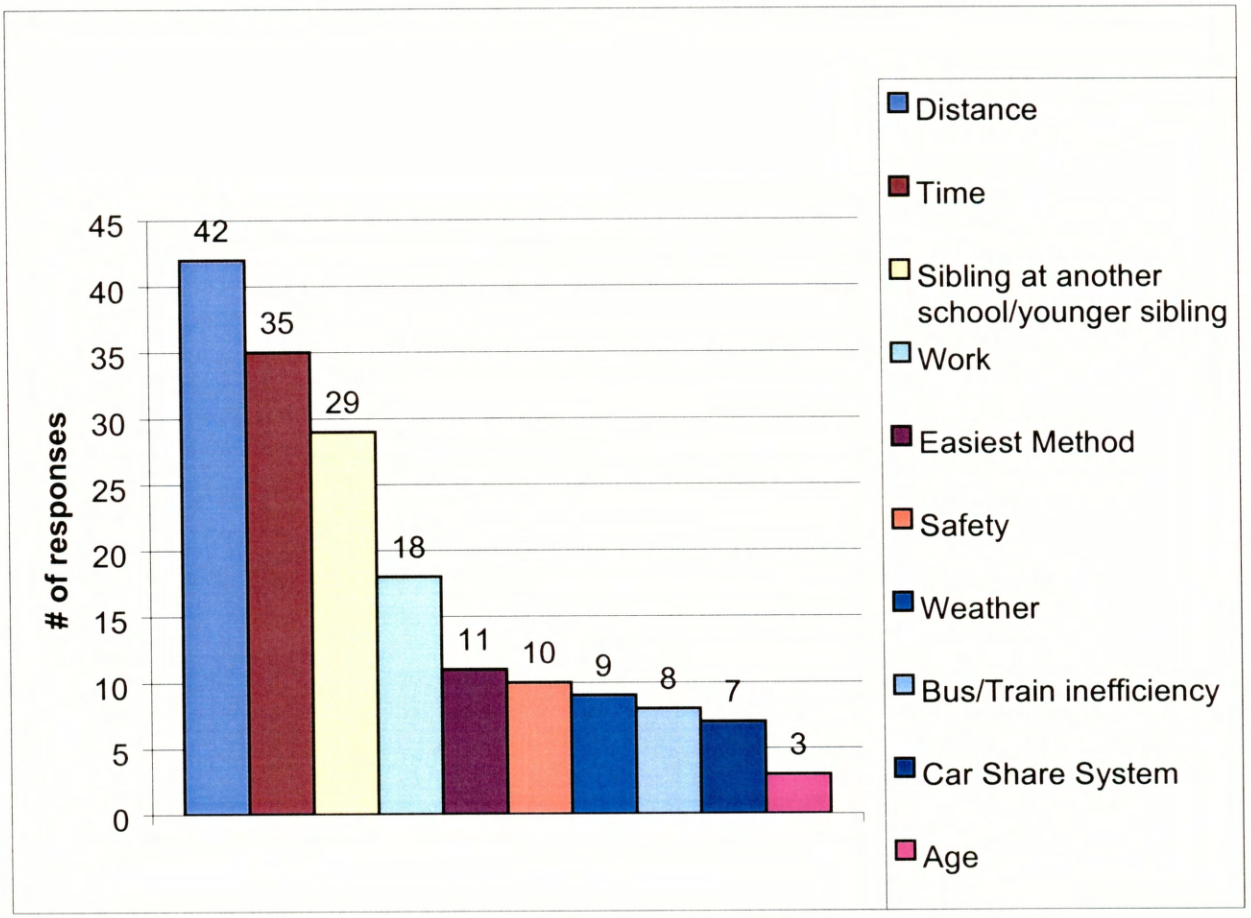



**Figure 2:** This graph represents the percentage of respondents of first school students to the question, "why do you travel to by car?" The number of respondents represents only the students who currently are driven to school.

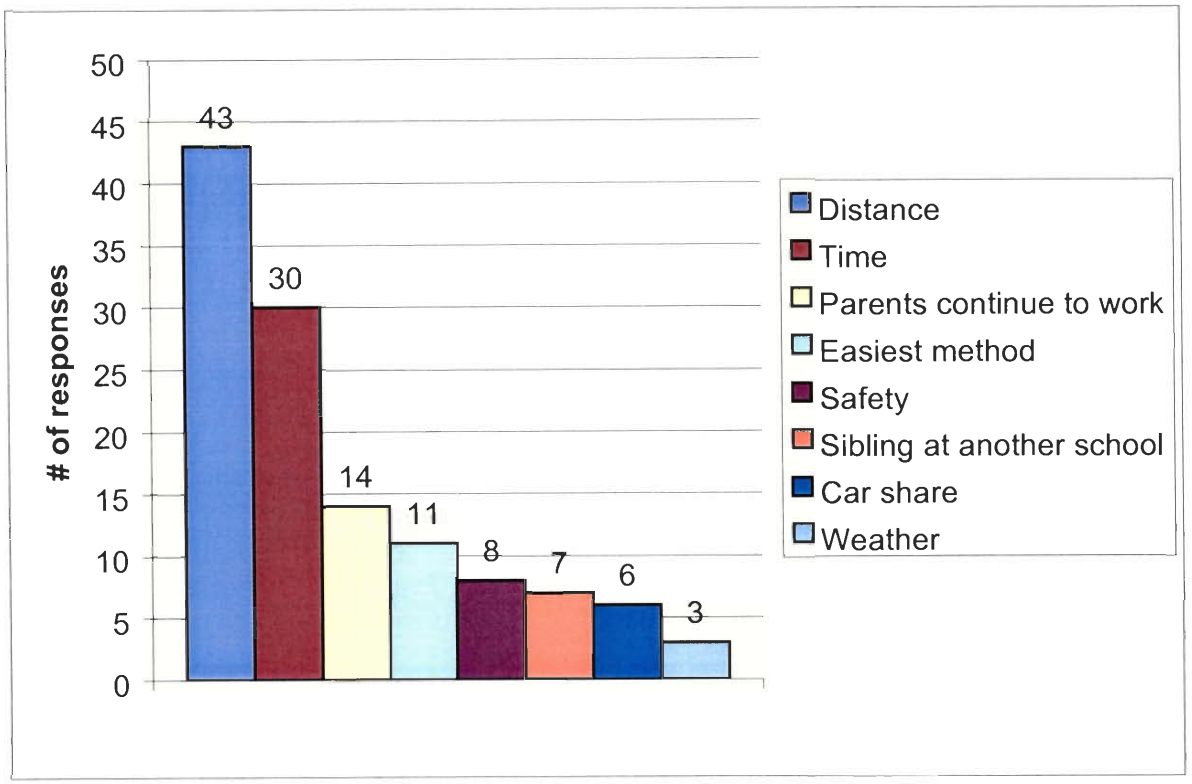



**Figure 3:** This graph represents the percentage of car users of middle school students to the question, "why do you travel to by car?" The number of respondents represents only the students who currently are driven to school.

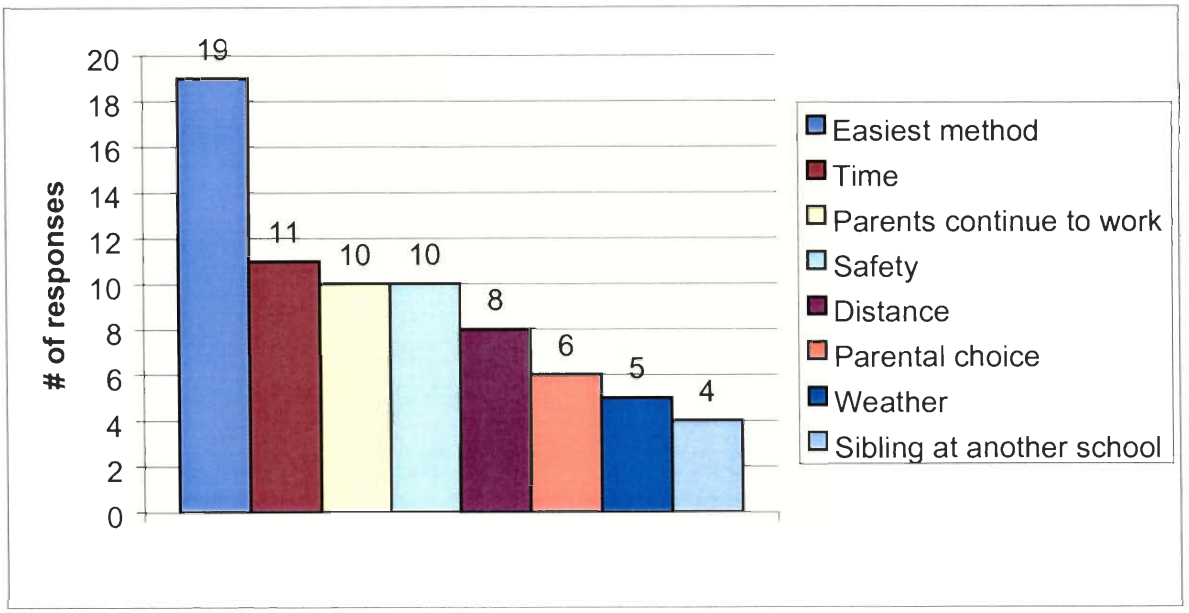



**Figure 4:** This graph represents the percent of car users of high school students to the question, "why do you travel to by car?" The number of respondents represents only the students who currently are driven to school.

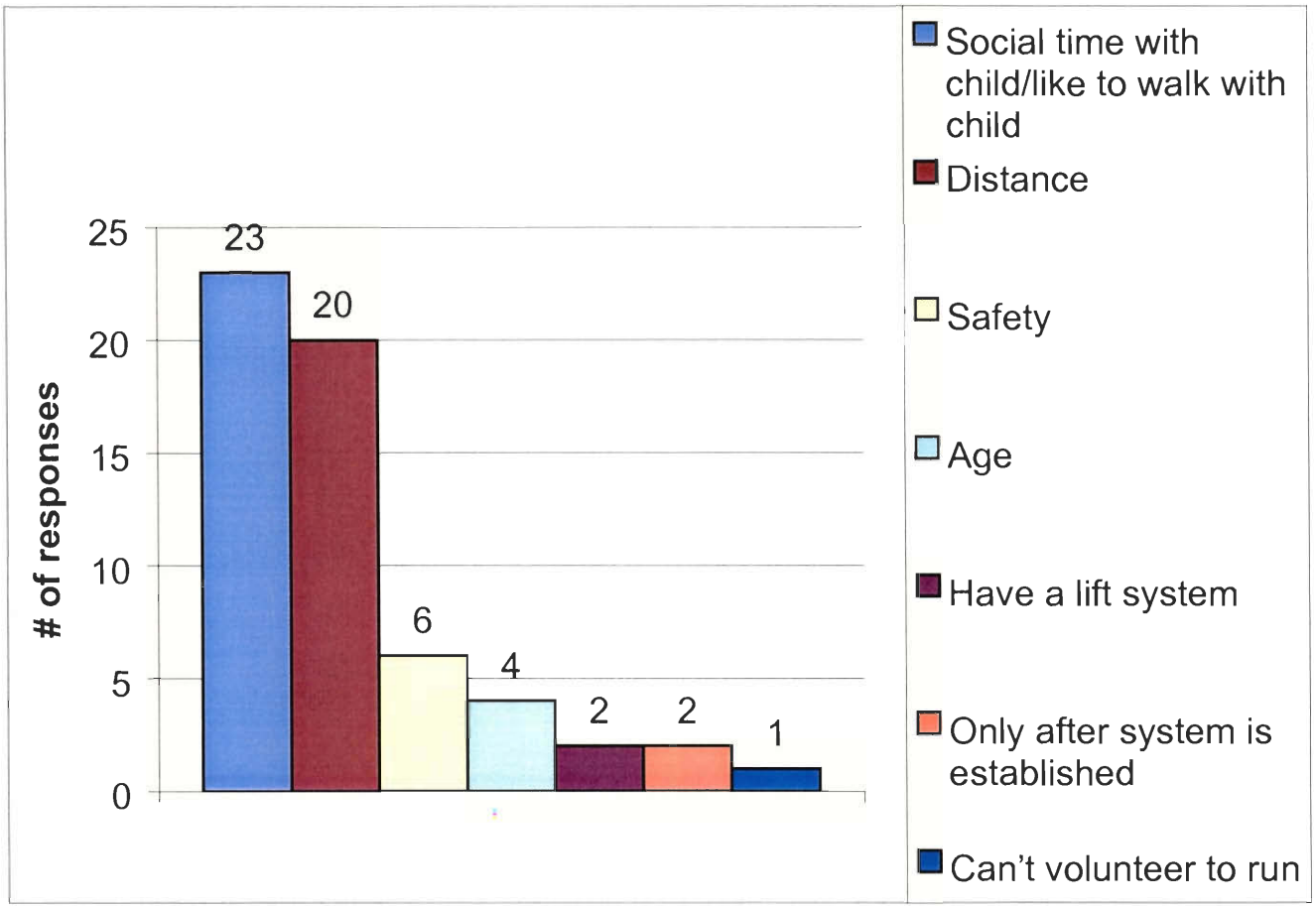



**Figure 5:** This graph represents the parent of first school student answers to the question, "why would you not let your child use a walking bus?"

# Observations

## Ricards Lodge, Park House, and Bishop Gilpin

The following list is the observations made in the Bishop Gilpin, Park House, and Ricards Lodge area.

- ***Description of area***
- The area around the T-intersection (Lake Road/Ricards Road) by Lake Road school entrance is busy and gets heavily congested upon student arrival and dismissal from the three schools.
- Cars are allowed to park on both sides of the road, but not in the yellow "stay clear" zigzag areas – however, they do park there.
- There is a steady flow of pedestrians and cars at the Lake Road entrance.
- There were no crossings at the school entrance.
- Leopald Rd. has a lollipop man and a high traffic/pedestrian volume.
- This area is highly residential except near Wimbledon Commons and Durnsford Rd.
- There are very few cycle lanes in the area.
- There are several entrances, and Park House has an area where parents can drive in and drop of children, but the primary entrance is the one on Lake Road
- BG = 1 main entrance on Lake Rd.
- RL = a few entrances on Lake and Leopald Rd.
- PH = 2 entrances – Lake Rd. and Arthur Rd.
- There are no speed humps by the Lake Road entrance, but there are some located on Leopold Road, and the speed limit is 30 mph.
- There is a heavy traffic volume in which the cars move quite fast; it is difficult to cross over Leopold Road at that spot because of this. And there is also a corner there, which presents a blind spot for drivers and pedestrians.

- ***Parents/Students***
- Children seem very cautious before crossing the road; cars go fast and do not stop for the pedestrians.
- An adult generally accompanies younger children.
- Many adults had younger children in strollers with them.

- ***Cars***
- The cars did not ever stop for pedestrians.
- Many parents parked in the zigzag to drop children off
- Cars drove fast down the road
- There are several school and speed warning signs in the area; most cars do not heed them.

## Hatfeild

- ***Description of area***
- Zebra Crossing on Hillcross Avenue.
- Residential/Industrial Area.
- Two sides of the school are facing a park.
- There are several alleyways around the school.
- There is a parking lot for parents to drop off and pick up their children. However, this will be made into a playground when the school switches to a primary school in two years.
- There is heavy traffic on Lower Morden Lane and pedestrians have a hard time crossing.
- There is a bus stop near the school.

- ***Parent/Students***
- Many people use the zebra crossing on Hillcross Avenue.

- ***Cars***
- The cars stop for people at the zebra crossing

## Hollymount

- *Description of area*

- Speed humps are ineffective- either cars don't slow down or go into the middle of the road to avoid them.
- Bumps don't affect people on motorbikes.
- There are a few cycle routes but they are not continuous.
- Good area for cycle routes except Rayne's Park and Warpole Rd.
- Residential area except near Rayne's Park and Warpole Rd.
- Warpole Rd is a very busy Rd. and has two zebra crossings and many pelican crossings.
- There are no crossings on Pepys Road, but it is not very busy.
- Corners of roads are no parking zones
- There is one main entrance located on Cambridge Rd.

- ***Parent/Students***
- Many parents park in back of the school and walk children into the school (this is a rule).
- Adults accompany most children.

- ***Cars***
- Icecream truck parked in zigzag in the afternoon
- Cars stop most of the time at zebra crossings
- Cars drive fast near school entrance and do not stop to let children cross

## Wimbledon Park

- ***Description of area***
- Parking is scarce.
- Businesses are located on the corners.
- School is located on two roads (Havana and Wellington); a park encloses the other two sides.
- The school is entirely fenced in.
- There is parking on both sides of the roads, but spaces are limited.
- There are no speed humps on the roads.
- Humps are located on nearby streets.
- Speed humps are ineffective.
- Located in residential/industrialised area.
- Durnsford is congested and busy.
- Crossing guard and zebra crossing on Durnsford Road up from school.
- Pelican crossings on Durnsford Rd.
- One main entrance on Havana Rd.

- *Parents/Students*
- Parents and children usually crossed at the zebra crossing on Durnsford Rd.
- Many parents had younger children with them.

- ***Cars***
- Stop for pedestrians at crosswalk but nowhere else.
- Drive fast on Durnsford Rd.

## 25.0 Appendix S: School Travel Plans

# Ricards Lodge Travel Plan

**Produced by:**
Lynn Michalenka
Kathy Pacheco
Christian Pedersen

**In conjunction with:**
Merton Transport Planning Department
Merton Education Department

**May 2000**

# School Travel Plan
# Ricards Lodge High School
# May 2000

**Description of School**

- **Student demographics**
  - Population of school: 823 total
  - Age levels: 12-16 (years 8 through 12)
  - Gender: all female
- **Description of area**
  - Urban; mostly residential
- **Map of location within the borough**
  - Refer to Appendix 1
- **Access arrangements (school entrances)**
  - Three school entrances on Lake Road
  - Children come from both directions on Lake Road, primarily from down the hill
- **Existing pedestrian and cycle facilities**
  - Pavement in front of school entrances
  - Footpath connecting Bishop Gilpin, Park House, and Ricards Lodge
  - Small section of a cycle path on Lake Road turning onto Leopold Road
  - Small cycle shed on campus

**Objectives of the School Travel Plan**

- **Primary focus**
  - To decrease the number of cars used on the journey to school, and consequently increase the safety, health, and fitness of the students
- **Secondary focuses**
  - To make the area outside the school, as well as routes to the school, safer and more pedestrian/cycle friendly to encourage fewer people to drive
  - To educate the students and their parents about travel codes
  - To develop working relations between the school and the Merton Council
  - To provide a model for the development of travel plans at other schools

**Benefits of the School Travel Plan**

- **For students**
  - Increase in safety
  - Better health and fitness
  - Heightened independence
  - Sustainable transport habits
- **For parents**
  - Child's safety, health, and independence
  - Convenience
  - Less road traffic
  - Eliminated or reduced school travel costs
  - Opportunities to volunteering and become involved in the school

- **For the school**
  - Less congestion around the school
  - Safer routes for the local community
  - Increased safety, health and fitness levels
  - Transport related curricular projects
  - Acknowledgement and recognition
- **For the borough**
  - Involvement with schools
  - Less traffic
  - Fewer accidents
  - Improved air quality
  - Better quality of life for residents
  - Catalyst for reduced car use everywhere

**Results from Data Collection**

- **Observation Results**
  - Map of area with existing and proposed traffic calming measures (Refer to Appendix 2)
- **Student Survey Results**
  - Survey distributed to students in April 2000 (Refer to Appendix 3)
  - Graphs showing students' current travel methods and desired travel methods (Refer to Appendix 4)
- **Parent Survey, Interview, and Focus Group Results**
  - **Safety Concerns**
    - Lake Road very congested during school pick-up and drop-off times
    - Cars park in restricted zones
    - Leopold Road and Dora Road intersection has poor visibility; very hard and dangerous to cross
    - High traffic speeds around school
    - Lake Road and Riacards Road intersection highly congested; cars park along entire length of pavement and the road is frequently blocked
    - Design of speed humps
  - **Reasons why students are currently driven to school**
    - Live too far away
    - Weather
    - Too dangerous to walk/cycle
    - Have to bring other children to different school
    - Have to drive to work right after
  - **Supervisors of the school travel plans**
    - Shelia Oviatt-Ham, Headteacher
    - Corrine Harper, Teacher Governor

**Travel Plan Recommendations**

- **Improvements to Safety Infrastructure**
  (For further information on infrastructure improvements, contact Pete Thomas)
  - Traffic calming measures
  - Intersection and crossing improvements
  - Cycle path improvements

- Warning signs

- **Transport**
  (For further information on establishing school routes, contact Chris Braidwood)
  - Encourage walking
  - Establish a walking bus system
  - Begin a cycle programme
  - Increase the use of public transport
- **Education**
  (For further information on education initiatives, contact Eddy Taylor)
  - Cross-curricular programmes
    - Integrate school travel into current coursework (Refer to Appendix 5)
  - Extra-curricular activities
  - Integrate school travel outside of class time (Refer to Appendix 6)
  - Parental Awareness
    - School involvement and volunteer training sessions (such as for a bus or walking bus system)
    - Informational pamphlets, newsletters, etc.
      (Parent pamphlet distributed with this School Travel Plan document)

**Outline of Action Steps for Each Stakeholder**

- **Merton's responsibility**
  - Provide more detailed designs and costs of proposals
  - Consult with the school and the local community
  - Work with the school in developing and implementing initiatives
  - Provide cyclist and pedestrian training at the schools
  - Provide the school with maps of area wide cycle and pedestrian networks
  - Monitor the effectiveness of the implemented plans
  - Plan to extend school travel plans to other neighbourhood schools
- **School's responsibility**
  - Inform the parents, staff, and governors of proposals for safe routes to school
  - Seek governor's approval, where necessary
  - Review or establish the school's policies on walking and cycling
  - Research the potential for cycle storage facility areas
  - Investigate possibilities for providing pedestrian and cycle training
  - Establish an awards program for those who walk and cycle
  - Organise the travel initiatives (walking buses, escort schemes, etc.)
  - Integrate travel plan initiatives into curriculum work
  - Maintain contact and work in partnership with the borough
- **Parent's responsibility**
  - Talk about proposed safe school travel initiatives and their aims, so these initiatives are made known and become successful
  - Inform the school of their approval and/or concerns
  - Discuss the possibility of their children changing their travel patterns
  - Consider volunteering to be a walking or cycling escort
  - Through the PTA, help raise funds to incorporate transport initiatives
  - Inform school of possible sponsors for initiatives

- **Children's responsibilities**
    - Discuss the advantages and difficulties of walking and cycling to school with parents and friends
    - Tell your teachers what the school could do to encourage you to want to walk or cycle to school
    - Ask to see a map of safe routes
    - Find a friend to travel with
    - Follow safe routes where possible and obey travel codes

Every plan begins with an idea, but it can only become successful if followed through. School travel plans have many benefits, but require time, effort and co-operation from those involved. It is important that the school develop, in conjunction with the community and Merton Council, a final school travel plan and all its components. Department of the Environment, Transport and the Regions, in their recent efforts to develop school travel plans throughout the United Kingdom, have stressed the importance of community ownership with final plan. The school, community, and Merton Council should construct the following sections of the school travel plan together.

A champion and/or committee should be found to take charge of the project and prioritise the initiatives suggested in the school travel plan. The person or committee put in charge of the project should construct a projected programme for the implementation of these measures. It would also be beneficial to set target goals for the project; for example, the school could set such a goal: "It is aimed that the number of parents driving their children to school will decrease from 40% to 25% within one year of the implementation of a walking bus system." Throughout the planning process, cost and regulatory policies should be considered.

Once a plan has been instated, the committee may choose to monitor its sucess. As suggested in the education recommendations, the school may employ the help of its students in conducting and analysing a yearly evaluation of the students' school travel methods through a survey. Based on the progress of the plans to date, the school may

consider updating and revising the plans. To summarize, the planning and monitoring processes for a school travel plan may follow the guide listed below:

**Implementation**

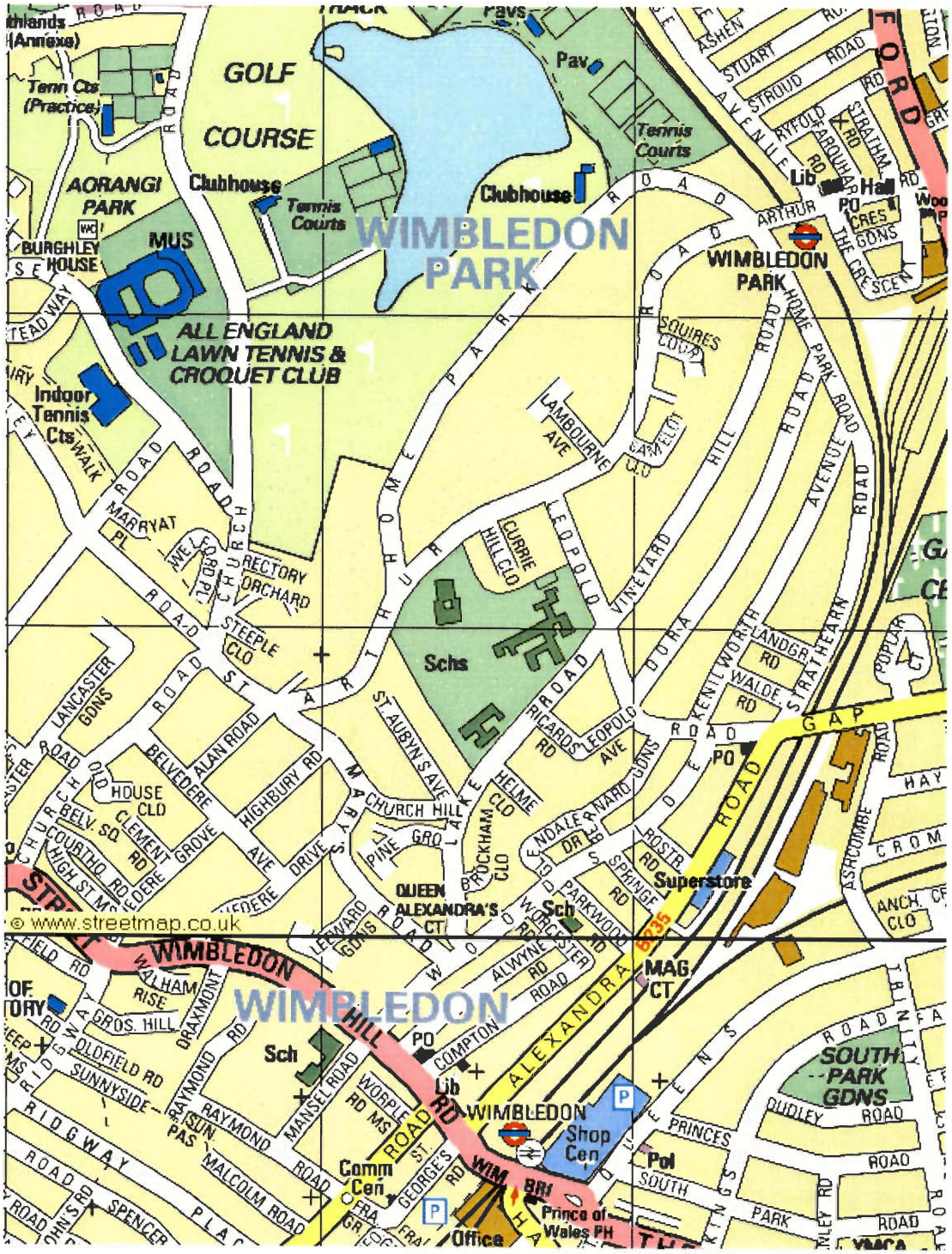
- **Identification of champion or committee to move proposed plans forward**
- **Projected programme**
- **Cost/funding source**

**Evaluation**

- **Establish goals**
- **Monitor the implemented plans**
- **Update and revise if necessary**

**Appendix 1:** Ricard Lodge's Location Within Merton

## **Appendix 2:** The Area Around Ricards Lodge




Reprinted with permission from www.streetmap.co.uk

## **Appendix 3:** Student Survey for Ricards Lodge

Ricards Lodge School Travel Plans Student Survey April 2000 merton moving ahead

**1.)** How old are you? _____

**2.)** Have you ever had a fright on the way to school?

- ☐ Yes
- ☐ No

**3.)** How do you get to school most often? (please tick only one)

- ☐ Walk
- ☐ Cycle
- ☐ Get a lift (car)
- ☐ Take the bus
- ☐ Take the train
- ☐ Other (please tell us)_____

**4.)** How far from school do you live? (please tick only one)

- ☐ 0 – ½ kilometres
- ☐ ½ - 1 kilometres
- ☐ 1 - 2 kilometres
- ☐ 2 - 3 kilometres
- ☐ 3 or more kilometres
- ☐ Not sure

---

**5.)** Of the following methods, which ways would you like to use to travel to school? (tick all that apply)

- ☐ Walk
- ☐ Cycle
- ☐ Get a lift (car)
- ☐ Take the bus
- ☐ Take the train
- ☐ Other (please tell us)_____

**6.)** Why do you use the method you indicated in question 3? Please explain.

_____

_____

_____

_____

**7.)** Please indicate the name of the street you live on. _____

**Please complete questions 8 through 11 only if you use a bus for all or a part of your travel to and from school. If you do not use buses, please proceed to question 12 on the back of this page.**

**8.)** Which bus number(s) do you take to school? _____

**9.)** Where do you get on the bus in the morning? (Please give the name of the street that your stop is located on.)_____

**10.)** Which bus number(s) do you take home from school? _____

**11.)** Where do you get off the bus in the afternoon? (Please give the name of the street that your stop is located on.) _____

## Turn Over, Please

**12.)** If you have any suggestions for improving school travel for you and your classmates or comments on the current system, please indicate these in the space provided below.

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

Thank you for completing our survey.

## Appendix 4: Student survey results

The following information is the results of a student transport survey administered at the Ricards Lodge high school in April 2000. The response rate upon collection of the surveys was 50%; this represents 411 surveys returned.

From the graph below, it is shown that at the time the survey was administered, 52% of the students took a bus to school, 19% walked, 15% were driven, 13% took a train, and 1% cycled. The national average is that 42% students walk to school, 2% cycle, 21% are driven, and 35% use public transport.

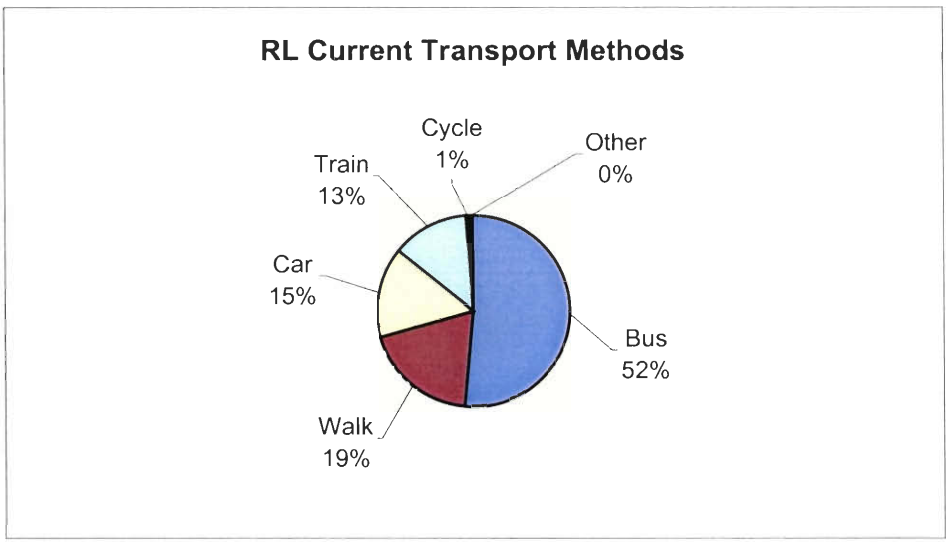



**Figure 1:** Ricards Lodge students' current travel methods to school

The following graph shows how the students responded to the question: Which way would you like to travel to school? Students could pick more than one option when answering the question, so percentages do not add up to 100. It can be seen that many children would like to be driven. However, the aim of this study is to decrease the number of those who drive. Walking and cycling seemed to be popular transport alternatives, as 85 and 27 students respectively chose these as desirable methods. These

are both higher values than those who said they currently walk (78) and cycle (3). Less would prefer to take the bus. While 211 students that responded to the survey already take the bus, only 119 would like to. Improvements in the bus system could increase the number of students that would like to use this method of transport.

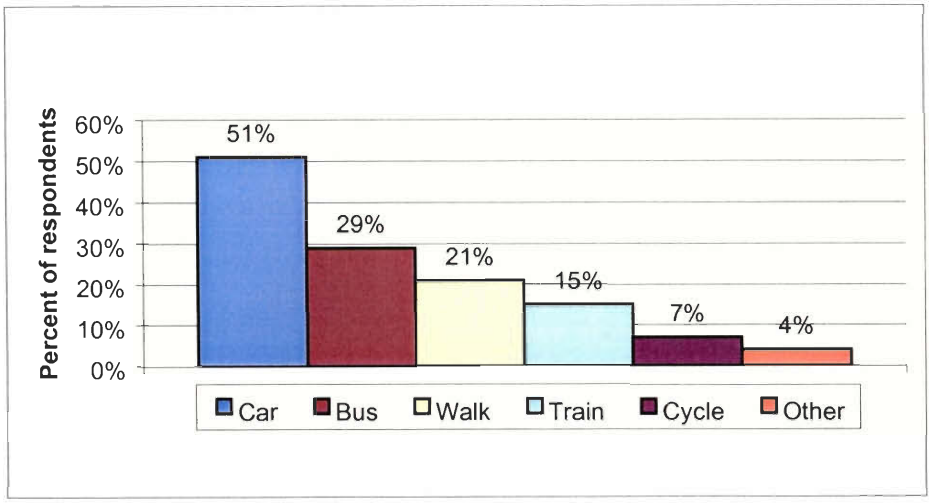



**Figure 2:** Ricards Lodge students' desired travel methods to school

The next graph below shows a correlation of the desired transport methods of students who are currently driven to school. The results show, while some would still like to use a car to travel to school, interest in, taking a bus (with 16 responses), walking (with 12 responses), and cycling (with 6 responses) present room for improvement. Some of the reasons these students are driven to school is because their parents travel to work afterward or they live to far from the school.

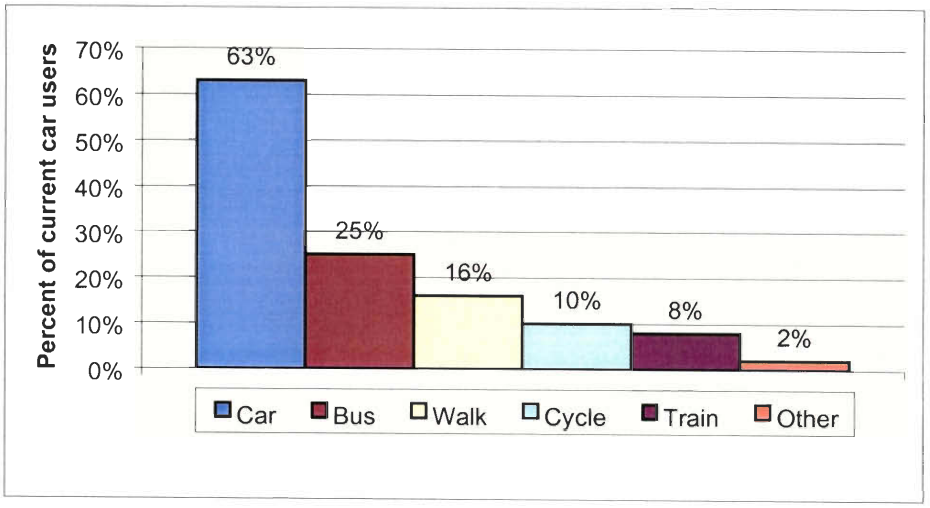
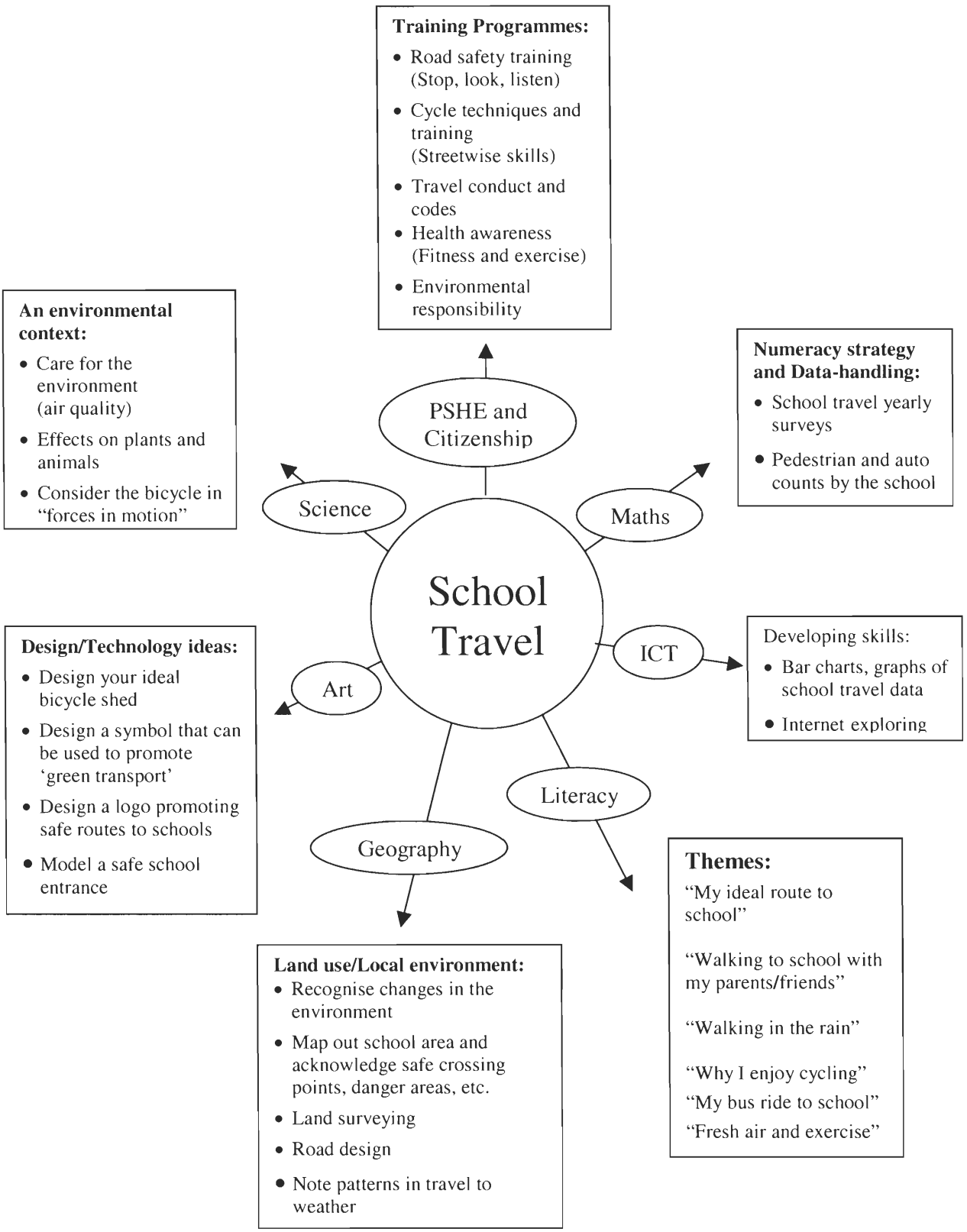
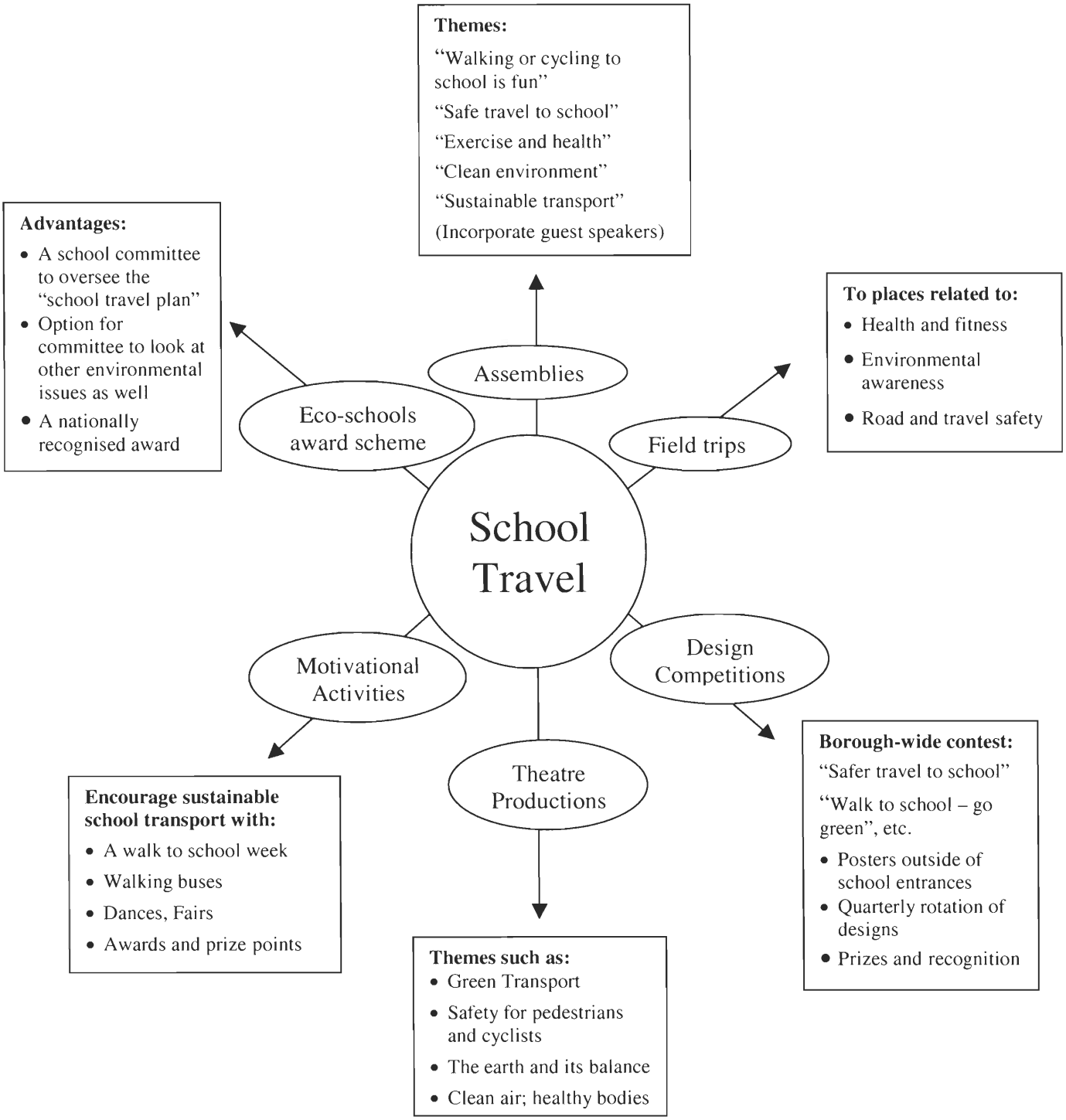



**Figure 3:** Desired travel method to school of Ricards Lodge students who are currently driven

# Appendix 5: Cross Curricular Educational Initiatives



## Appendix 6: Extra Curricular Education Initiatives



## Appendix 7: Contact Information

**Borough officials:**

- Mr Pete Thomas, Principal Transport Planning Engineer - phone: 8545-3192
  (Contact for information regarding the transport planning for the school, cycling, and traffic calming measures)

- Mr Eddy Taylor, Education Coordinator - phone: 8545-3280
  (Contact for Eco-school information, as well as incorporating school travel into the curriculum)

- Miss Pat Dunkley, Principal Accident Analysis and Prevention Officer – phone: 8545-3207
  (Contact for information on safety education and accident analysis)

- Mrs Chris Braidwood, Senior Safety Education Officer - phone: 8545-3206
  (Contact for assistance in planning out safe routes to school; walking bus routes)

**Address:** Merton Civic Centre
London Road
Morden
Surrey SM4 5DX

**Schools involved with this project:**

Bishop Gilpin First School
Mr Bob Cargill, Headteacher
Lake Road
London SW19 7EP
8946-6666

Hatfeild First School
Mr Greg Parker, Headteacher
Lower Morden Lane
Morden
Surrey SM4 4SJ
8337-1332

Hollymount First School
Mrs Valerie Martin, Headteacher
Cambridge Road
London SW20 0SQ
8946-0454

Wimbledon Park First School
Mrs June Pack, Headteacher
Havava Road
London SM4 4QU
8946-4925

Park House Middle School
Mr Richard King, Headteacher
Arthur Road
London SW19 7DZ
8947-4445

Ricards Lodge High School
Mrs Shelia Oviatt Ham, Headteacher
Ms Corrine Harper, Governor
Lake Road
London SW19 7HB
8946-2208

# Park House Travel Plan

**Produced by:**
Lynn Michalenka
Kathy Pacheco
Christian Pedersen

**In conjunction with:**
Merton Transport Planning Department
Merton Education Department

**May 2000**

# School Travel Plan
# Park House Middle School
# May 2000

**Description of School**

- **Student demographics**
  - Population of school: 476 total (255 - girls; 221 - boys)
  - Age levels: 8-11 (years 4 through 7)
  - Gender: mixed
- **Description of area**
  - Urban; mostly residential
- **Map of location within the borough**
  - Refer to Appendix 1
- **Access arrangements (school entrances)**
  - School entrance on Lake Road and Arthur Road
- **Existing pedestrian and cycle facilities**
  - Pavement in front of school entrance
  - Footpath connecting Bishop Gilpin, Park House, and Ricards Lodge
  - Small section of a cycle lane on Lake Road turning onto Leopold Road
  - Small cycle shed on Ricards Lodge campus

**Objectives of the School Travel Plan**

- **Primary focus**
  - To decrease the number of cars used on the journey to school, and consequently increase the safety, health, and fitness of the students
- **Secondary focuses**
  - To make the area outside the school, as well as routes to the school, safer and more pedestrian/cycle friendly to encourage fewer people to drive
  - To educate the students and their parents about travel codes
  - To develop working relations between the school and the Merton Council
  - To provide a model for the development of travel plans at other schools

**Benefits of the School Travel Plan**

- **For students**
  - Increase in safety
  - Better health and fitness
  - Heightened independence
  - Sustainable transport habits
- **For parents**
  - Child's safety, health, and independence
  - Convenience
  - Less road traffic
  - Eliminated or reduced school travel costs
  - Opportunities to volunteering and become involved in the school

- **For the school**
  - Less congestion around the school
  - Safer routes for the local community
  - Increased safety, health and fitness levels
  - Transport related curricular projects
  - Acknowledgement and recognition
- **For the borough**
  - Involvement with schools
  - Less traffic
  - Fewer accidents
  - Improved air quality
  - Better quality of life for residents
  - Catalyst for reduced car use everywhere

**Results from Data Collection**

- **Observation Results**
  - Map of school area with existing and proposed traffic calming measures (Refer to Appendix 2)
- **Student Survey Results**
  - Survey distributed to the students in April 2000 (Refer to Appendix 3)
  - Graphs showing students' current travel methods and desired travel methods (Refer to Appendix 4)
- **Parent Survey, Interview, and Focus Group Results**
  - **Safety Concerns**
    - Congestion on Lake Road during school pick-up and drop-off times
    - Cars park in no parking zones
    - Poor visibility and therefore danger at Leopold Road and Dora Road intersection
    - High traffic speeds around school
    - Congestion at Lake Road and Ricards Road; cars park along entire length of pavement and the road is frequently blocked
    - Design of speed humps
  - **Reasons why students are currently driven to school**
    - Parents live too far away
    - Inclement Weather
    - Roads are too dangerous to walk/cycle on
    - Parent has to bring an another children to a different school
    - Parent has to drive to work after dropping child at school
  - **Supervisor of the school travel plans**
    - Richard King, Headteacher

**Travel Plan Recommendations**

- **Improvements to Safety Infrastructure**
  (For further information on infrastructure improvements, contact Pete Thomas)
  - Traffic calming measures
  - Intersection and crossing improvements
  - Cycle path improvements
  - Warning signs

- **Transport**
  (For further information on establishing school routes, contact Chris Braidwood)
  - Encourage walking
  - Begin a cycle programme
  - Increase the use of public transport
- **Education**
  (For further information on education initiatives, contact Eddy Taylor)
  - Cross-curricular programmes
    - Integrate school travel into current coursework (Refer to Appendix 5)
  - Extra-curricular activities
    - Integrate school travel outside of class time (Refer to Appendix 6)
  - Parental Awareness
    - School involvement and volunteer training sessions
    - Informational pamphlets, newsletters, etc.
      (Parent pamphlet distributed with this School Travel Plan document)

**Outline of Action Steps for Each Stakeholder**

- **Merton's responsibility**
  - Provide more detailed designs and costs of proposals
  - Consult with the school and the local community
  - Work with the school in developing and implementing initiatives
  - Provide cyclist and pedestrian training at the schools
  - Provide the school with maps of area wide cycle and pedestrian networks
  - Monitor the effectiveness of the implemented plans
  - Plan to extend school travel plans to other neighbourhood schools
- **School's responsibility**
  - Inform the parents, staff, and governors of proposals for safe routes to school
  - Seek governor's approval, where necessary
  - Review or establish the school's policies on walking and cycling
  - Research the potential for cycle storage facility areas
  - Investigate possibilities for providing pedestrian and cycle training
  - Establish an awards program for those who walk and cycle
  - Organise the travel initiatives (walking buses, escort schemes, etc.)
  - Integrate travel plan initiatives into curriculum work
  - Maintain contact and work in partnership with the borough
- **Parent's responsibility**
  - Talk about proposed safe school travel initiatives and their aims, so these initiatives are made known and become successful
  - Inform the school of their approval and/or concerns
  - Discuss the possibility of their children changing their travel patterns
  - Consider volunteering to be a walking or cycling escort
  - Through the PTA, help raise funds to incorporate transport initiatives
  - Inform school of possible sponsors for initiatives

- **Children's responsibilities**
  - Discuss the advantages and difficulties of walking and cycling to school with parents and friends
  - Tell your teachers what the school could do to encourage you to want to walk or cycle to school
  - Ask to see a map of safe routes
  - Find a friend to travel with
  - Follow safe routes where possible and obey travel codes

Every plan begins with an idea, but it can only become successful if followed through. School travel plans have many benefits, but require time, effort and co-operation from those involved. It is important that the school develop, in conjunction with the community and Merton Council, a final school travel plan and all its components. Department of the Environment, Transport and the Regions, in their recent efforts to develop school travel plans throughout the United Kingdom, have stressed the importance of community ownership with final plan. The school, community, and Merton Council should construct the following sections of the school travel plan together.

A champion and/or committee should be found to take charge of the project and prioritise the initiatives suggested in the school travel plan. The person or committee put in charge of the project should construct a projected programme for the implementation of these measures. It would also be beneficial to set target goals for the project; for example, the school could set such a goal: "It is aimed that the number of parents driving their children to school will decrease from 40% to 25% within one year of the implementation of a walking bus system." Throughout the planning process, cost and regulatory policies should be considered.

Once a plan has been instated, the committee may choose to monitor its sucess. As suggested in the education recommendations, the school may employ the help of its students in conducting and analysing a yearly evaluation of the students' school travel methods through a survey. Based on the progress of the plans to date, the school may

consider updating and revising the plans. To summarize, the planning and monitoring processes for a school travel plan may follow the guide listed below:

**Implementation**

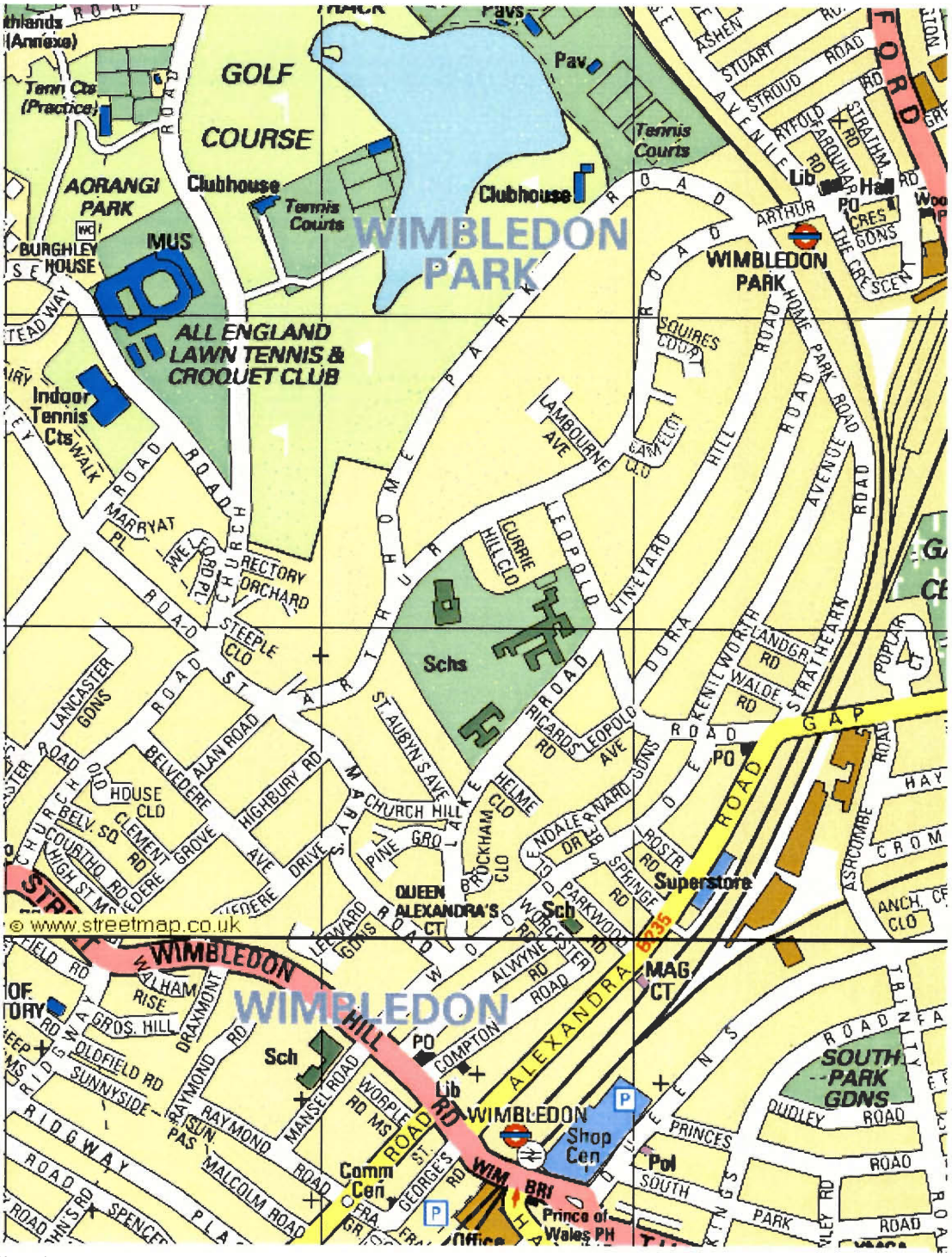
- **Identification of champion or committee to move proposed plans forward**
- **Projected programme**
- **Cost/funding source**

**Evaluation**

- **Establish goals**
- **Monitor the implemented plans**
- **Update and revise if necessary**

**Appendix 1:** Park House's Location Within Merton

## **Appendix 2:** The Area Around Park House




Reprinted with permission from www.streetmap.co.uk

**Appendix 3:** Student Survey for Park House

## Park House School Travel Plans Student Survey

April 2000 merton moving ahead

**1.)** How old are you? _____

**2.)** Are you Male or Female?

- ☐ Male
- ☐ Female

**3.)** How do you get to school most often? (please tick only one)

- ☐ Walk
- ☐ Cycle
- ☐ Get a lift (car)
- ☐ Take the bus
- ☐ Take the train
- ☐ Other (please tell us)_____

**4.)** How far from school do you live? (please tick only one)

- ☐ 0 – ½ kilometres
- ☐ ½ - 1 kilometres
- ☐ 1 - 2 kilometres
- ☐ 2 - 3 kilometres
- ☐ 3 or more kilometres
- ☐ Not sure

---

**5.)** Of the following methods, which ways would you like to use to travel to school? (tick all that apply)

- ☐ Walk
- ☐ Cycle
- ☐ Get a lift (car)
- ☐ Take the bus
- ☐ Take the train
- ☐ Other (please tell us)_____

**6.)** Why do you use the method you indicated in question 3? Please explain.

_____

_____

_____

_____

## **Appendix 4:** Student Survey Results

The following information is the results of a student transport survey administered at the Park House Middle School in April 2000. The response rate for this survey was 45%, with 214 students, out of the entire school population, returning the survey.

Figure 1 below shows that at the time the surveys were administered, 32% of the students walked to school, 55% were driven, 10% took a bus, 2% a train, and 1% used another form of transport. The national average, shown in Figure 2, is that 42% walk, 2% cycle, 21% are driven, and 35% use public transport (DETR School Travel Strategies and Plans: Case Studies Report, p. 86).

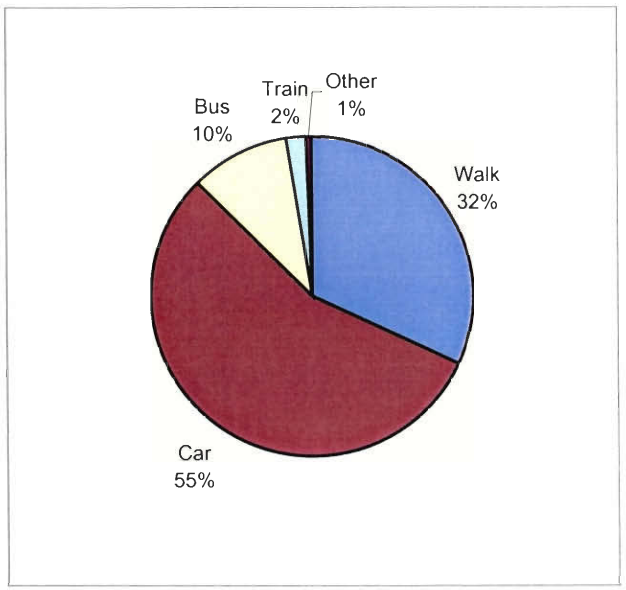



**Figure 1:** Transport choices for Park House middle school: April 2000.

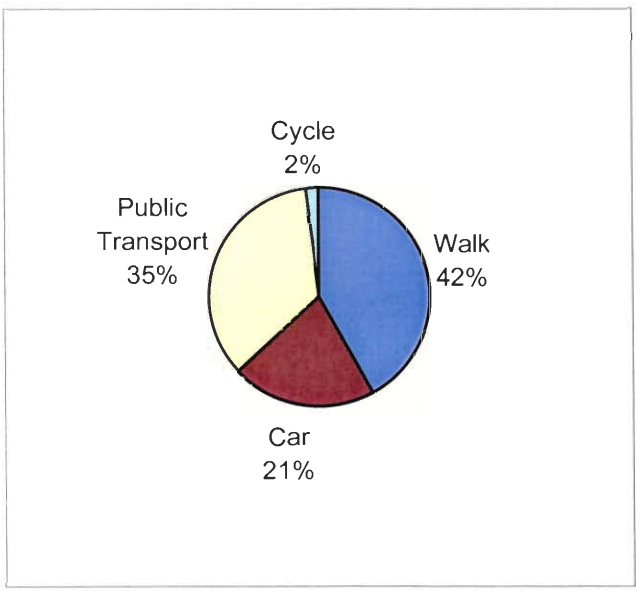



**Figure 2:** National average of transport choices for the United Kingdom

Figure three shows student responses to the question: "Which way would you like to travel to school?" Students could pick more than one option when answering the question. Cycling was the most popular choice, with 96 students responses, and this

represents 45% of students that answered the survey would like to cycle to school. Walking was also popular, with 61 responses.

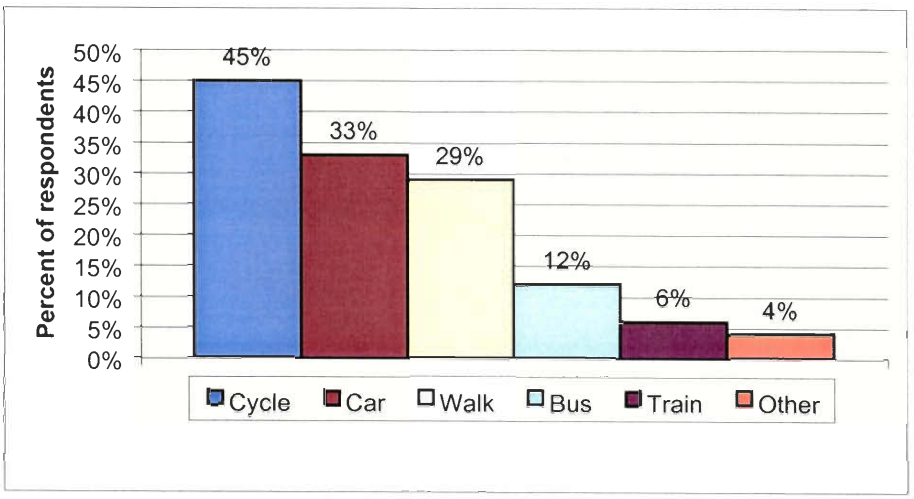



**Figure 3:** Favored travel methods for students at the Park House middle school.

The next graph, Figure 4, shows the desired transport methods of students who are currently driven to school. The results show that while some students would still prefer to be driven, there is interest in cycling (55 responses) and walking (27 responses).

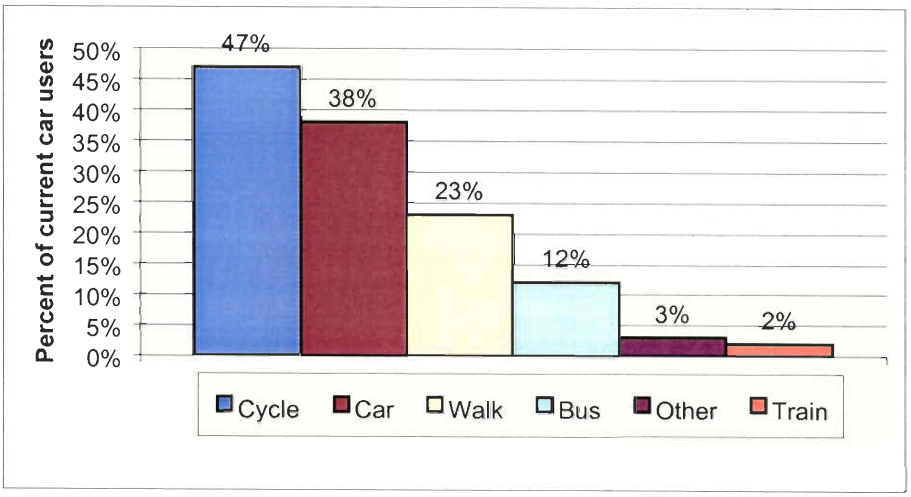
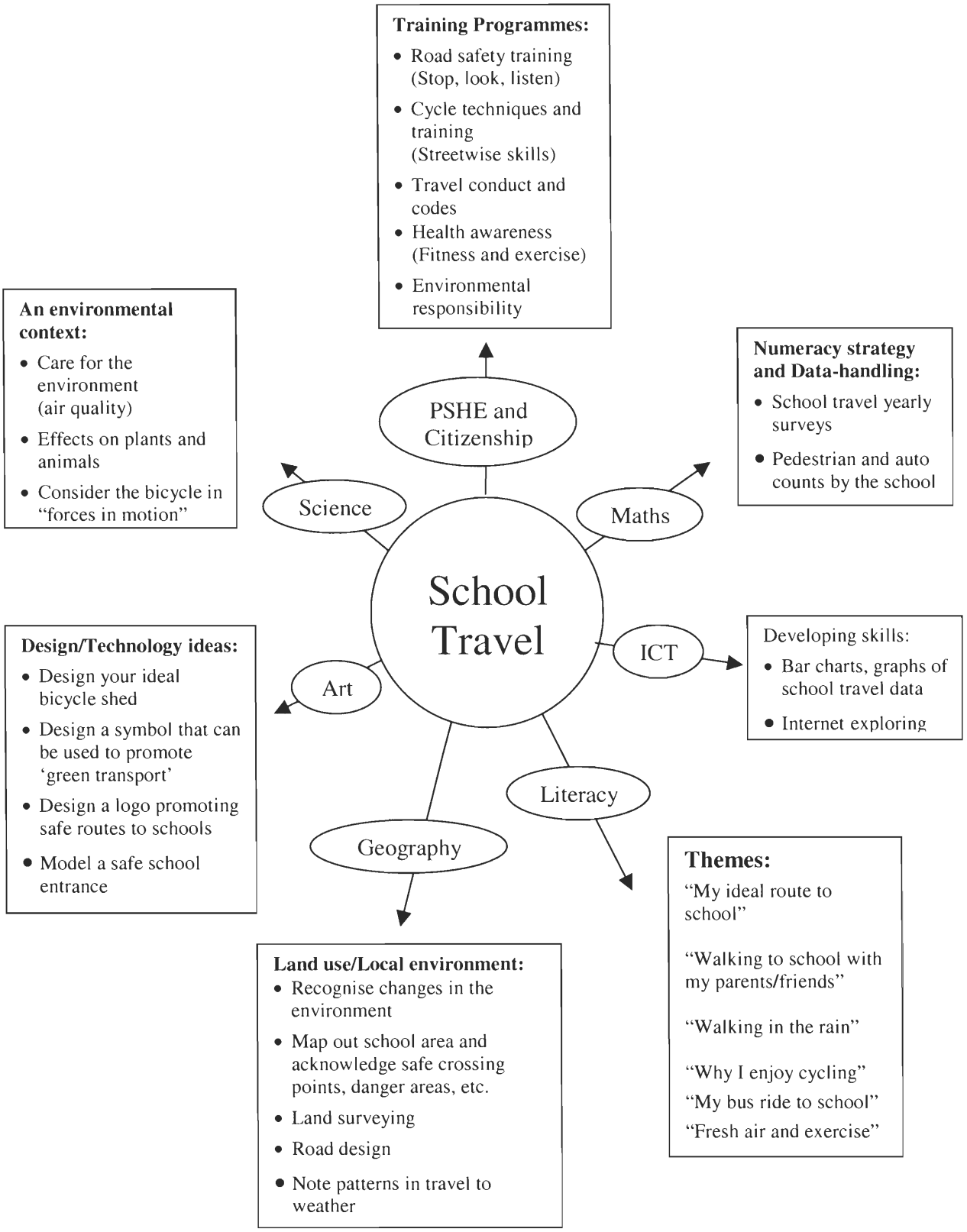
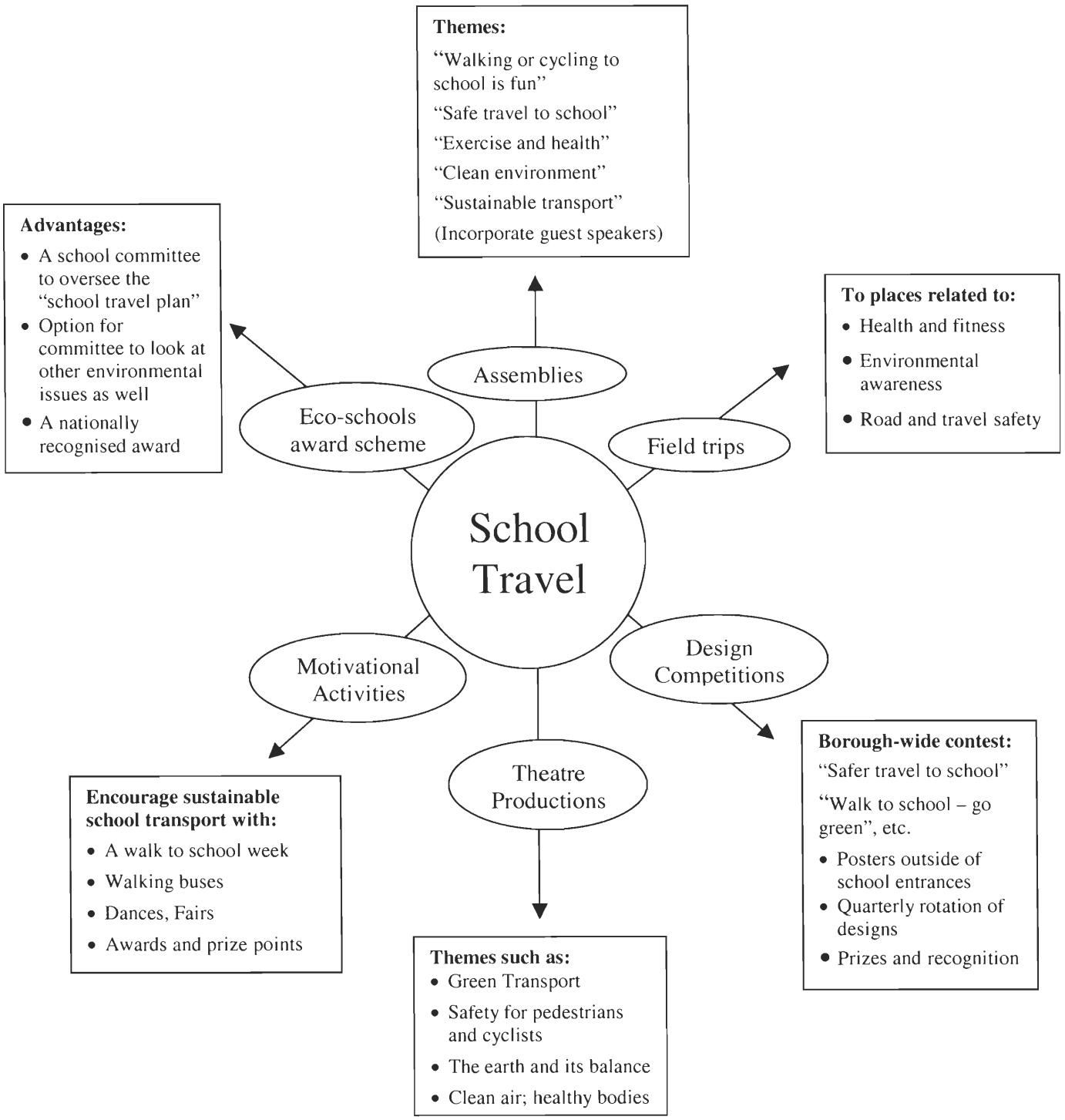



**Figure 4:** Preferred transport methods among students at Park House who are currently driven to school

## Appendix 5: Cross Curricular Educational Initiatives



## Appendix 6: Extra Curricular Education Initiatives



## Appendix 7: Contact Information

**Borough officials:**

- Mr Pete Thomas, Principal Transport Planning Engineer - phone: 8545-3192
  (Contact for information regarding the transport planning for the school, cycling, and traffic calming measures)

- Mr Eddy Taylor, Education Coordinator - phone: 8545-3280
  (Contact for Eco-school information, as well as incorporating school travel into the curriculum)

- Miss Pat Dunkley, Principal Accident Analysis and Prevention Officer – phone: 8545-3207
  (Contact for information on safety education and accident analysis)

- Mrs Chris Braidwood, Senior Safety Education Officer - phone: 8545-3206
  (Contact for assistance in planning out safe routes to school; walking bus routes)

**Address:** Merton Civic Centre
London Road
Morden
Surrey SM4 5DX

**Schools involved with this project:**

Bishop Gilpin First School
Mr Bob Cargill, Headteacher
Lake Road
London SW19 7EP
8946-6666

Hatfeild First School
Mr Greg Parker, Headteacher
Lower Morden Lane
Morden
Surrey SM4 4SJ
8337-1332

Hollymount First School
Mrs Valerie Martin, Headteacher
Cambridge Road
London SW20 0SQ
8946-0454

Wimbledon Park First School
Mrs June Pack, Headteacher
Havava Road
London SM4 4QU
8946-4925

Park House Middle School
Mr Richard King, Headteacher
Arthur Road
London SW19 7DZ
8947-4446

Ricards Lodge High School
Mrs Shelia Oviatt Ham, Headteacher
Ms Corrine Harper, Governor
Lake Road
London SW19 7HB
8946-2208

# Bishop Gilpin Travel Plan

**Produced by:**
Lynn Michalenka
Kathy Pacheco
Christian Pedersen

**In conjunction with:**
Merton Transport Planning Department
Merton Education Department

**May 2000**

# School Travel Plan
# Bishop Gilpin First School
# May 2000

**Description of School**

- **Student demographics**
  - Population of school: 323 total (223 - school; 100 - nursery)
  - Age levels: 2-3 (nursery); 4 (reception); 5-7 (years 1 through 3)
  - Gender: mixed
- **Description of area**
  - Urban; mostly residential
- **Map of location within the borough**
  - Refer to Appendix 1
- **Access arrangements (school entrances)**
  - School entrance on Lake Road
  - Children come from both directions on Lake Road and from Ricards Road; most students live up the hill toward Leopold Road
- **Existing pedestrian and cycle facilities**
  - Pavement in front of school entrance
  - Footpath connecting Bishop Gilpin, Park House, and Ricards Lodge
  - Small section of a cycle lane on Lake Road turning onto Leopold Road
  - Small cycle shed on Ricards Lodge campus

**Objectives of the School Travel Plan**

- **Primary focus**
  - To decrease the number of cars used on the journey to school, and consequently increase the safety, health, and fitness of the students
- **Secondary focuses**
  - To make the area outside the school, as well as routes to the school, safer and more pedestrian/cycle friendly to encourage fewer people to drive
  - To educate the students and their parents about travel codes
  - To develop working relations between the school and the Merton Council
  - To provide a model for the development of travel plans at other schools

**Benefits of the School Travel Plan**

- **For students**
  - Increase in safety
  - Better health and fitness
  - Heightened independence
  - Sustainable transport habits

- **For parents**
  - Child's safety, health, and independence
  - Convenience
  - Less road traffic
  - Eliminated or reduced school travel costs
  - Opportunities to volunteering and become involved in the school
  -

- **For the school**
  - Less congestion around the school
  - Safer routes for the local community
  - Increased safety, health and fitness levels
  - Transport related curricular projects
  - Acknowledgement and recognition
- **For the borough**
  - Involvement with schools
  - Less traffic
  - Fewer accidents
  - Improved air quality
  - Better quality of life for residents
  - Catalyst for reduced car use everywhere

**Results from Data Collection**

- **Observation Results**
  - Map of school area with existing and proposed traffic calming measures (Refer to Appendix 2)
- **Student Survey Results**
  - Survey distributed to the students in April 2000 (Refer to Appendix 3)
  - Graphs showing students' current travel methods and desired travel methods (Refer to Appendix 4)
- **Parent Survey, Interview, and Focus Group Results**
  - **Problems on the school journey (intersections, crossings, etc.):**
    - Congestion on Lake Road during school pick-up and drop-off times
    - Cars park in no parking zones
    - Poor visibility and therefore danger at Leopold Road and Dora Road intersection
    - High traffic speeds around school
    - Congestion at Lake Road and Ricards Road; cars park along entire length of pavement and the road is frequently blocked
    - Design of speed humps
  - **Reasons why students are currently driven to school**
    - Parents live too far away
    - Inclement Weather
    - Roads are too dangerous to walk/cycle on
    - Parent has to bring an another children to a different school
    - Parent has to drive to work after dropping child at school
  - **Supervisors of the school travel plans**
    - Bob Cargill, Headteacher
    - Nikki Morgan, Teacher Governor

**Travel Plan Recommendations**

- **Improvements to Safety Infrastructure**
  (For further information on infrastructure improvements, contact Pete Thomas)
  - Traffic calming measures
  - Intersection and crossing improvements
  - Cycle path improvements
  - Warning signs
- **Transport**
  (For further information on establishing school routes, contact Chris Braidwood)
  - Encourage walking
  - Establish a walking bus system
  - Begin a cycle programme
  - Increase the use of public transport
- **Education**
  (For further information on education initiatives, contact Eddy Taylor)
  - Cross-curricular programmes
    - Integrate school travel into current coursework (Refer to Appendix 5)
  - Extra-curricular activities
    - Integrate school travel outside of class time (Refer to Appendix 6)
  - Parental Awareness
    - School involvement and volunteer training sessions (such as for a bus or walking bus system)
    - Informational pamphlets, newsletters, etc.
      (Parent pamphlet distributed with this School Travel Plan document)

**Outline of Action Steps for Each Stakeholder**

- **Merton's responsibility**
  - Provide more detailed designs and costs of proposals
  - Consult with the school and the local community
  - Work with the school in developing and implementing initiatives
  - Provide cyclist and pedestrian training at the schools
  - Provide the school with maps of area wide cycle and pedestrian networks
  - Monitor the effectiveness of the implemented plans
  - Plan to extend school travel plans to other neighbourhood schools
- **School's responsibility**
  - Inform the parents, staff, and governors of proposals for safe routes to school
  - Seek governor's approval, where necessary
  - Review or establish the school's policies on walking and cycling
  - Research the potential for cycle storage facility areas
  - Investigate possibilities for providing pedestrian and cycle training
  - Establish an awards program for those who walk and cycle
  - Organise the travel initiatives (walking buses, escort schemes, etc.)
  - Integrate travel plan initiatives into curriculum work
  - Maintain contact and work in partnership with the borough

- **Parent's responsibility**
  - Talk about proposed safe school travel initiatives and their aims, so these initiatives are made known and become successful
  - Inform the school of their approval and/or concerns
  - Discuss the possibility of their children changing their travel patterns
  - Consider volunteering to be a walking or cycling escort
  - Through the PTA, help raise funds to incorporate transport initiatives
  - Inform school of possible sponsors for initiatives

- **Children's responsibilities**
  - Discuss the advantages and difficulties of walking and cycling to school with parents and friends
  - Tell your teachers what the school could do to encourage you to want to walk or cycle to school
  - Ask to see a map of safe routes
  - Find a friend to travel with
  - Follow safe routes where possible and obey travel codes

Every plan begins with an idea, but it can only become successful if followed through. School travel plans have many benefits, but require time, effort and co-operation from those involved. It is important that the school develop, in conjunction with the community and Merton Council, a final school travel plan and all its components. Department of the Environment, Transport and the Regions, in their recent efforts to develop school travel plans throughout the United Kingdom, have stressed the importance of community ownership with final plan. The school, community, and Merton Council should construct the following sections of the school travel plan together.

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**Implementation**
- **Identification of champion or committee to move proposed plans forward**
- **Projected programme**
- **Cost/funding source**

**Evaluation**
- **Establish goals**
- **Monitor the implemented plans**
- **Update and revise if necessary**

**Appendix 1:** Bishop Gilpin's Location Within Merton

## **Appendix 2:** Area Around Bishop Gilpin


Reprinted with permission from www.streetmap.co.uk

**Appendix 3:** Student Survey for Bishop Gilpin

## Bishop Gilpin School Travel Plans Student Survey

April 2000 merton moving ahead

**1.)** How old are you? _____

**2.)** Are you Male or Female?

- ☐ Male
- ☐ Female

**3.)** How do you get to school most often? (please tick only one)

- ☐ Walk
- ☐ Cycle
- ☐ Get a lift (car)
- ☐ Take the bus
- ☐ Take the train
- ☐ Other (please tell us)_____

**4.)** How far from school do you live? (please tick only one)

- ☐ 0 – ½ kilometres
- ☐ ½ - 1 kilometres
- ☐ 1 - 2 kilometres
- ☐ 2 - 3 kilometres
- ☐ 3 or more kilometres
- ☐ Not sure

---

**5.)** Of the following methods, which ways would you like to use to travel to school? (tick all that apply)

- ☐ Walk
- ☐ Cycle
- ☐ Get a lift (car)
- ☐ Take the bus
- ☐ Take the train
- ☐ Other (please tell us)_____

**6.)** Why do you use the method you indicated in question 3? Please explain.

_____

_____

_____

_____

## **Appendix 4:** Student Survey Results

The following information is the results of a student transport survey administered at the Park House Middle School in April 2000. The response rate for this survey was 45%, with 214 students, out of the entire school population, returning the survey.

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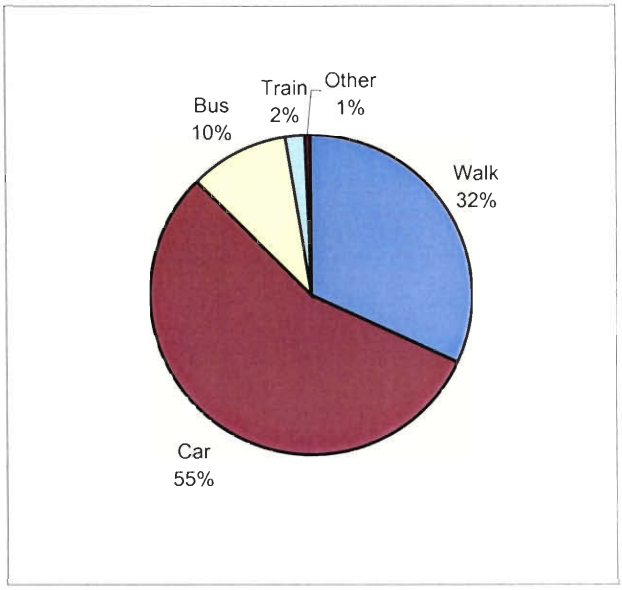


**Figure 1:** Transport choices for Park House middle school: April 2000.

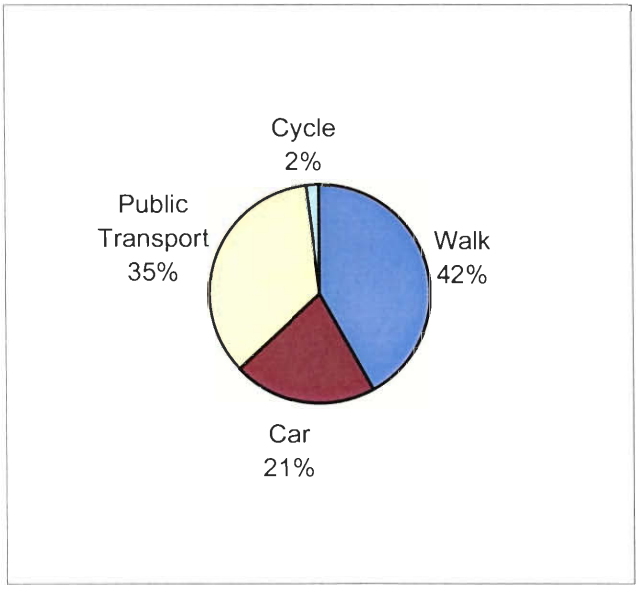


**Figure 2:** National average of transport choices for the United Kingdom

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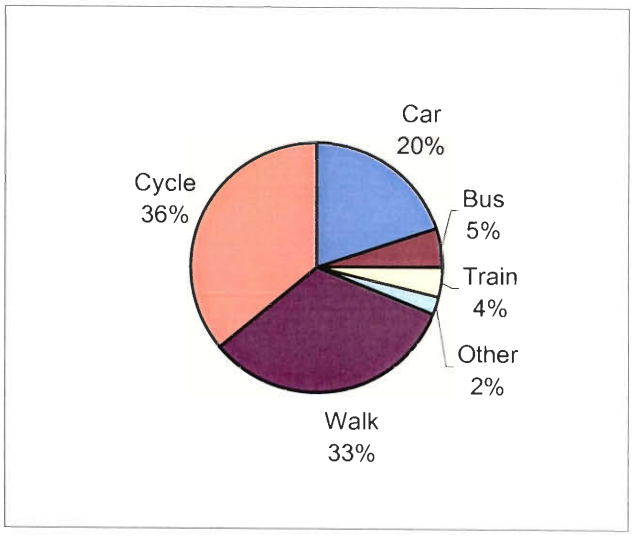



**Figure 3:** Favored travel methods for students at the Bishop Gilpin first school.

The next graph, Figure 4, shows the desired transport methods of students who are currently driven to school. The results show that while some students would still prefer to be driven, there is interest in cycling (26 responses) and walking (12 responses).

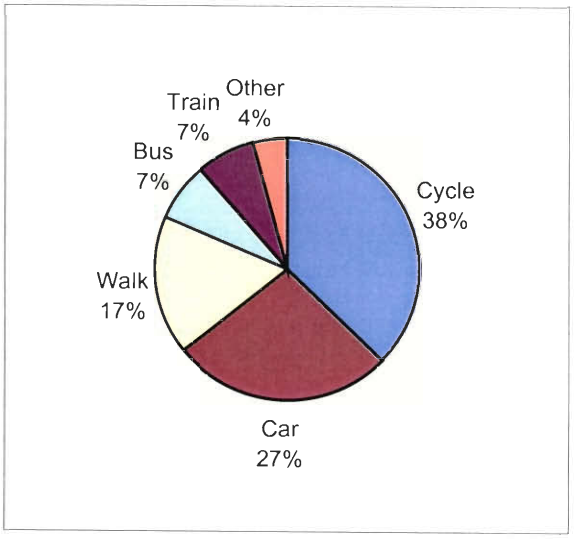
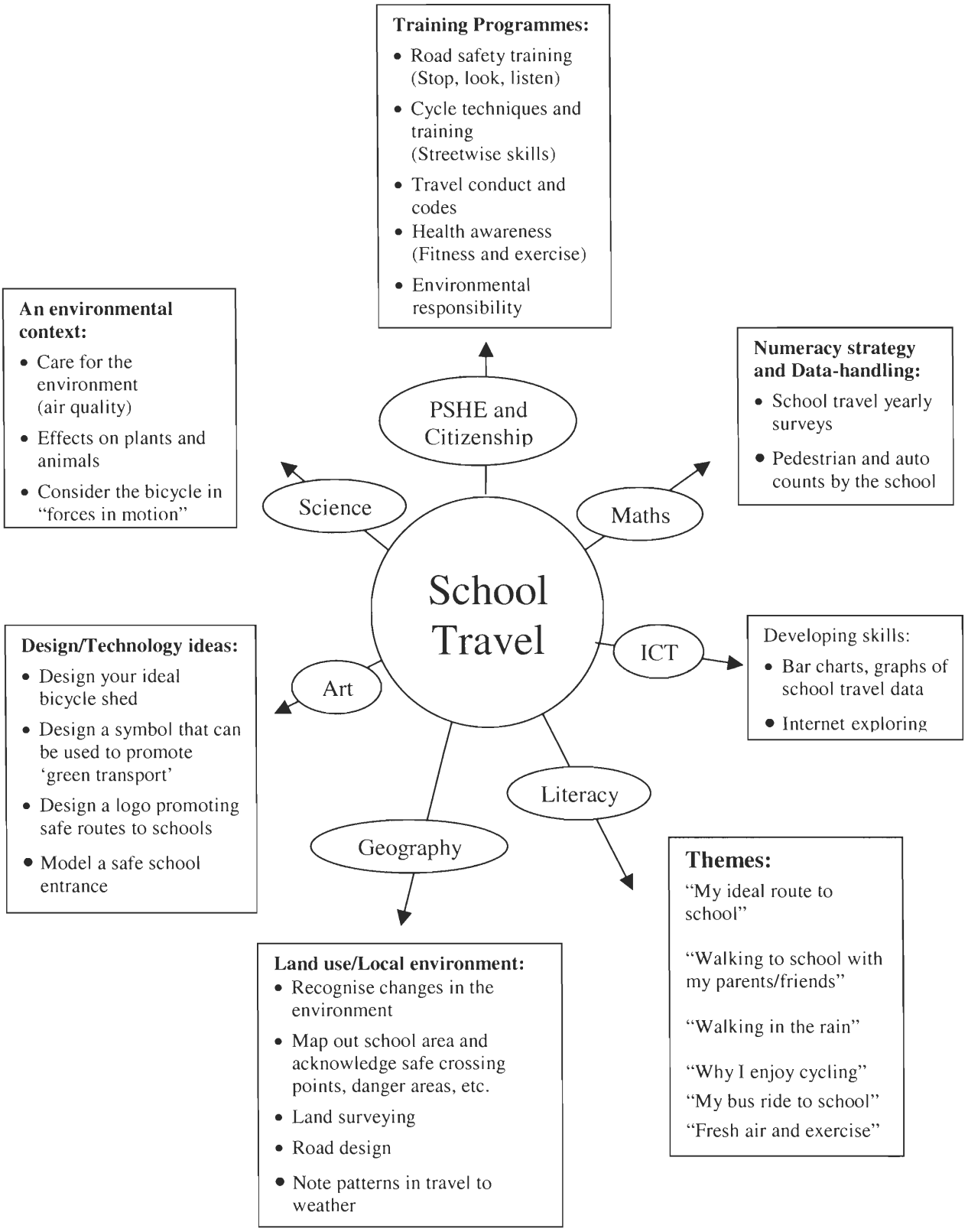
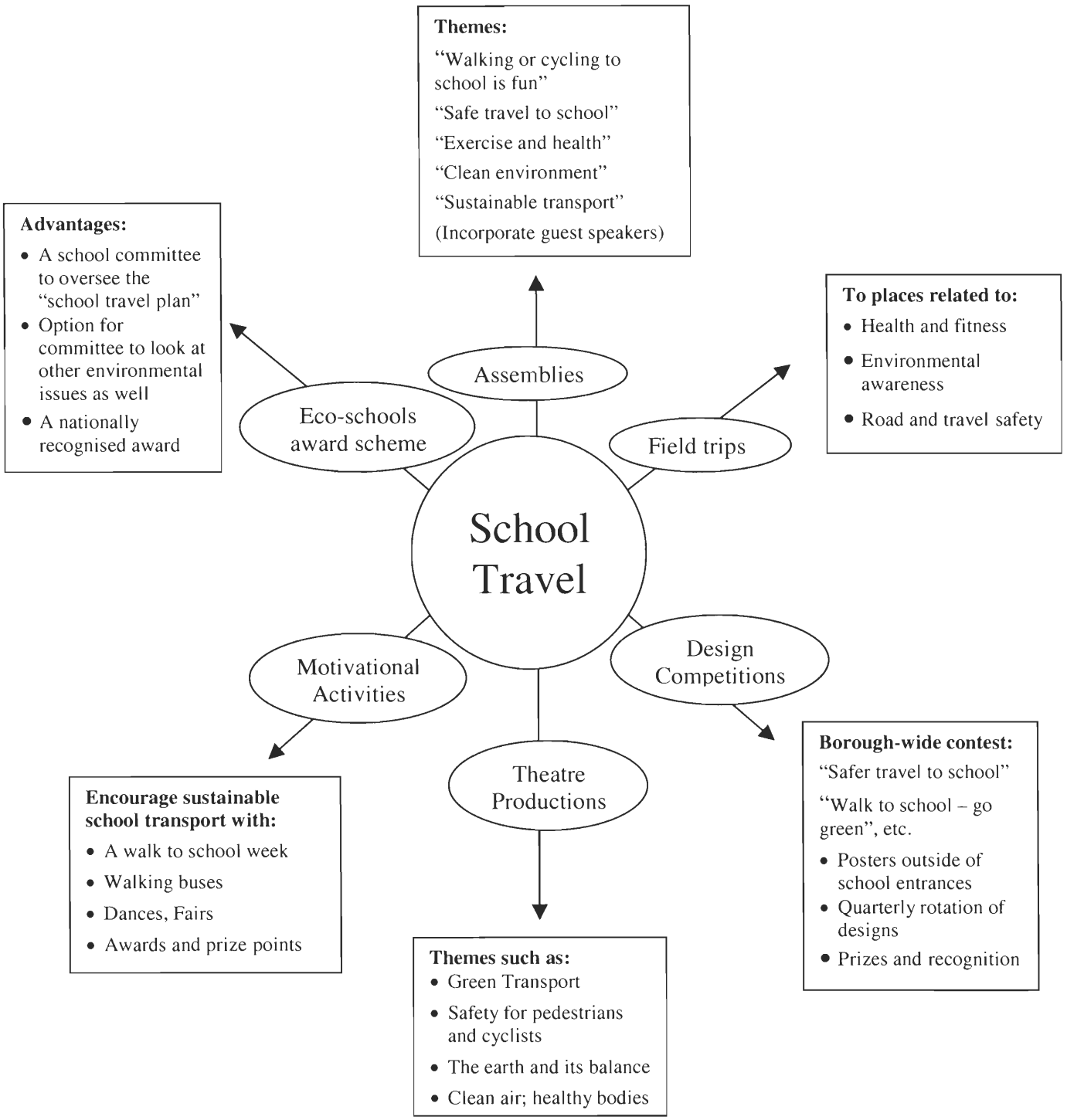



**Figure 4:** Preferred transport methods among students at Bishop Gilpin who are currently driven to school

# Appendix 5: Cross Curricular Educational Initiatives



## Appendix 6: Extra Curricular Education Initiatives



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  (Contact for information on safety education and accident analysis)

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**Address:** Merton Civic Centre
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Morden
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**Schools involved with this project:**

Bishop Gilpin First School
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London SM4 4QU
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Park House Middle School
Mr Richard King, Headteacher
Arthur Road
London SW19 7DZ
8947-4447

Ricards Lodge High School
Mrs Shelia Oviatt Ham, Headteacher
Ms Corrine Harper, Governor
Lake Road
London SW19 7HB
8946-2208

# Hatfeild Travel Plan

**Produced by:**
Lynn Michalenka
Kathy Pacheco
Christian Pedersen

**In conjunction with:**
Merton Transport Planning Department
Merton Education Department

**May 2000**

# School Travel Plan
# Hatfeild First School
# May 2000

**Description of School**

- **Student demographics**
  - Population of school: 333 total (234 - school; 99 - nursery)
  - Age levels: 2-3 (nursery); 4 (reception); 5-7 (years 1 through 3)
  - Gender: mixed
- **Description of area**
  - Urban; mostly residential
- **Map of location within the borough**
  - Refer to Appendix 1
- **Access arrangements (school entrances)**
  - One entrance on Lower Morden Lane
- **Existing pedestrian and cycle facilities**
  - Pavement in front of school entrance
  - Several footpaths surrounding school and nearby park
  - Zebra crossing on Hillcross Avenue
  - Traffic Calming Measures on Lower Morden Lane
  - Pedestrian island in front of the school

**Objectives of the School Travel Plan**

- **Primary focus**
  - To decrease the number of cars used on the journey to school, and consequently increase the safety, health, and fitness of the students
- **Secondary focuses**
  - To make the area outside the school, as well as routes to the school, safer and more pedestrian/cycle friendly to encourage fewer people to drive
  - To educate the students and their parents about travel codes
  - To develop working relations between the school and the Merton Council
  - To provide a model for the development of travel plans at other schools

**Benefits of the School Travel Plan**

- **For students**
  - Increase in safety
  - Better health and fitness
  - Heightened independence
  - Sustainable transport habits
- **For parents**
  - Child's safety, health, and independence
  - Convenience
  - Less road traffic
  - Eliminated or reduced school travel costs
  - Opportunities to volunteering and become involved in the school

- **For the school**
  - Less congestion around the school
  - Safer routes for the local community
  - Increased safety, health and fitness levels
  - Transport related curricular projects
  - Acknowledgement and recognition
- **For the borough**
  - Involvement with schools
  - Less traffic
  - Fewer accidents
  - Improved air quality
  - Better quality of life for residents
  - Catalyst for reduced car use everywhere

**Results from Data Collection**

- **Observation Results**
  - Map of school area with existing and proposed traffic calming measures (Refer to Appendix 2)
- **Student Survey Results**
  - Survey distributed to the students in April 2000 (Refer to Appendix 3)
  - Graphs showing students' current travel methods and desired travel methods (Refer to Appendix 4)

**Parent Survey, Interview, and Focus Group Results**

- **Safety Concerns**
  - Traffic on Hillcross Avenue
  - Beverly roundabout
  - Crossing on Lower Morden Lane
  - Parking in no parking zones in front of the school
- **Reasons why students are currently driven to school**
  - Parents live too far away
  - Inclement Weather
  - Roads are too dangerous to walk/cycle on
  - Parent has to bring an another children to a different school
  - Parent has to drive to work after dropping child at school
- **Supervisors of the school travel plans**
  - Greg Parker, Headteacher

**Travel Plan Recommendations**

- **Improvements to Safety Infrastructure**
  (For further information on infrastructure improvements, contact Pete Thomas)
  - Traffic calming measures
  - Intersection and crossing improvements
  - Cycle path improvements
  - Warning signs

- **Transport**
  (For further information on establishing school routes, contact Chris Braidwood)
  - Safe travel routes along existing footpaths
  - Encourage walking
  - Establish a walking bus system
  - Begin a cycle programme
  - Increase the use of public transport
- **Education**
  (For further information on education initiatives, contact Eddy Taylor)
  - Cross-curricular programmes
    - Integrate school travel into current coursework (Refer to Appendix 5)
  - Extra-curricular activities
    - Integrate school travel outside of class time (Refer to Appendix 6)
  - Parental Awareness
    - School involvement and volunteer training sessions (such as for a bus or walking bus system)
    - Informational pamphlets, newsletters, etc.
      (Parent pamphlet distributed with this School Travel Plan document)

**Outline of Action Steps for Each Stakeholder**

- **Merton's responsibility**
  - Provide more detailed designs and costs of proposals
  - Consult with the school and the local community
  - Work with the school in developing and implementing initiatives
  - Provide cyclist and pedestrian training at the schools
  - Provide the school with maps of area wide cycle and pedestrian networks
  - Monitor the effectiveness of the implemented plans
  - Plan to extend school travel plans to other neighbourhood schools
- **School's responsibility**
  - Inform the parents, staff, and governors of proposals for safe routes to school
  - Seek governor's approval, where necessary
  - Review or establish the school's policies on walking and cycling
  - Research the potential for cycle storage facility areas
  - Investigate possibilities for providing pedestrian and cycle training
  - Establish an awards program for those who walk and cycle
  - Organise the travel initiatives (walking buses, escort schemes, etc.)
  - Integrate travel plan initiatives into curriculum work
  - Maintain contact and work in partnership with the borough
- **Parent's responsibility**
  - Talk about proposed safe school travel initiatives and their aims, so these initiatives are made known and become successful
  - Inform the school of their approval and/or concerns
  - Discuss the possibility of their children changing their travel patterns
  - Consider volunteering to be a walking or cycling escort
  - Through the PTA, help raise funds to incorporate transport initiatives
  - Inform school of possible sponsors for initiatives

- **Children's responsibilities**
    - Discuss the advantages and difficulties of walking and cycling to school with parents and friends
    - Tell your teachers what the school could do to encourage you to want to walk or cycle to school
    - Ask to see a map of safe routes
    - Find a friend to travel with
    - Follow safe routes where possible and obey travel codes

Every plan begins with an idea, but it can only become successful if followed through. School travel plans have many benefits, but require time, effort and co-operation from those involved. It is important that the school develop, in conjunction with the community and Merton Council, a final school travel plan and all its components. Department of the Environment, Transport and the Regions, in their recent efforts to develop school travel plans throughout the United Kingdom, have stressed the importance of community ownership with final plan. The school, community, and Merton Council should construct the following sections of the school travel plan together.

A champion and/or committee should be found to take charge of the project and prioritise the initiatives suggested in the school travel plan. The person or committee put in charge of the project should construct a projected programme for the implementation of these measures. It would also be beneficial to set target goals for the project; for example, the school could set such a goal: "It is aimed that the number of parents driving their children to school will decrease from 40% to 25% within one year of the implementation of a walking bus system." Throughout the planning process, cost and regulatory policies should be considered.

Once a plan has been instated, the committee may choose to monitor its sucess. As suggested in the education recommendations, the school may employ the help of its students in conducting and analysing a yearly evaluation of the students' school travel methods through a survey. Based on the progress of the plans to date, the school may

consider updating and revising the plans. To summarize, the planning and monitoring processes for a school travel plan may follow the guide listed below:

**Implementation**

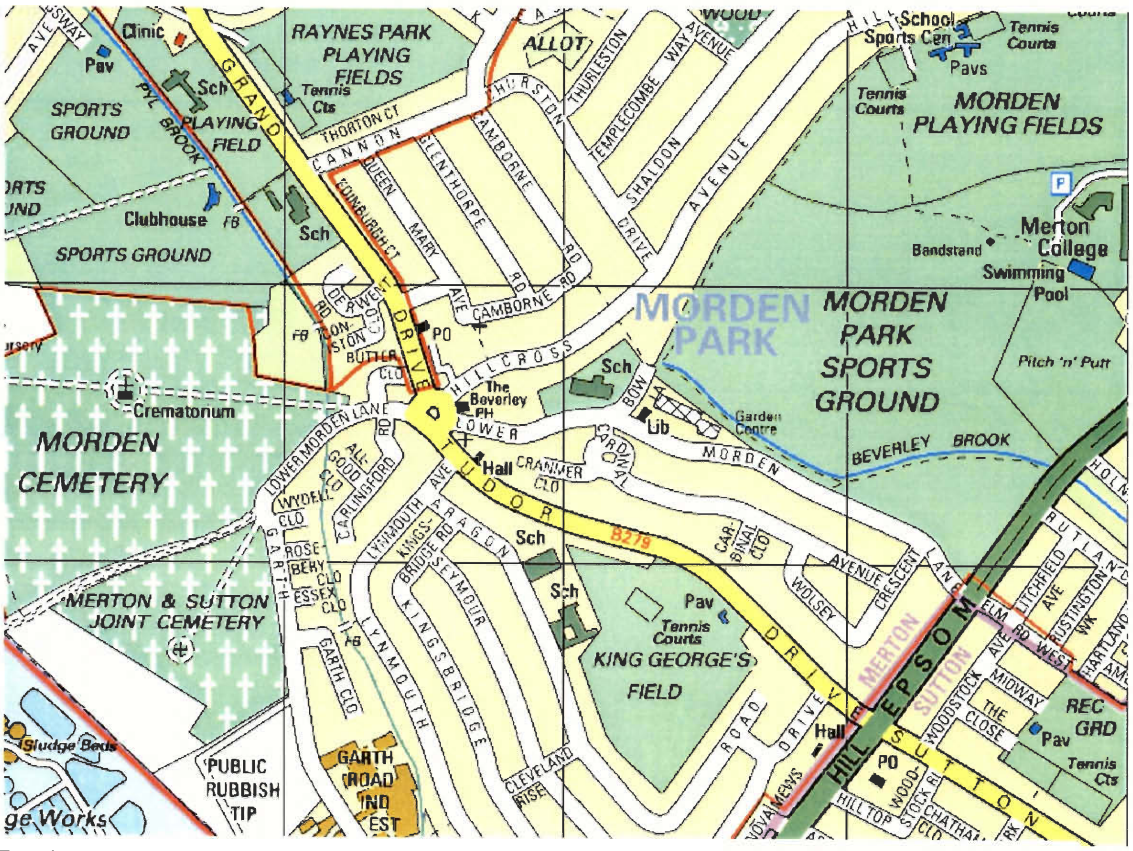
- **Identification of champion or committee to move proposed plans forward**
  - **Projected programme**
- **Cost/funding source**

**Evaluation**

- **Establish goals**
- **Monitor the implemented plans**
- **Update and revise if necessary**

**Appendix 1:** Hatfeild's Location Within Merton

## **Appendix 2:** The Area Around Hatfeild




Reprinted with permission from www.streetmap.co.uk

**Appendix 3:** Student Survey for Hatfeild School

**Hatfeild School Travel Plans Student Survey** April 2000

**1.)** How old are you? _____

**2.)** Are you Male or Female?

- ☐ Male
- ☐ Female

**3.)** How do you get to school most often?
(please tick only one)

- ☐ Walk
- ☐ Cycle
- ☐ Get a lift (car)
- ☐ Take the bus
- ☐ Take the train
- ☐ Other (please tell us)_____

**4.)** How far from school do you live?
(please tick only one)

- ☐ 0 – ½ kilometres
- ☐ ½ - 1 kilometres
- ☐ 1 - 2 kilometres
- ☐ 2 - 3 kilometres
- ☐ 3 or more kilometres
- ☐ Not sure

---

**5.)** Of the following methods, which ways would you like to use to travel to school?
(tick all that apply)

- ☐ Walk
- ☐ Cycle
- ☐ Get a lift (car)
- ☐ Take the bus
- ☐ Take the train
- ☐ Other (please tell us)_____

**6.)** Why do you use the method you indicated in question 3? Please explain.

_____

_____

_____

_____

## **Appendix 4:** Student Survey Results

The following information section summarizes the results of a student transport survey administered at the Hatfeild First School in April 2000. The response rate upon collection of the surveys was 18% of the students responding; this represents 42 surveys returned.

From the graph below, it is shown that at the time the survey was administered, 45% of the students walked to school, 53% were driven, and 2% used a form of public transport. The national average is that 42% walk, 2% cycle, 21% are driven, and 35% use public transport.

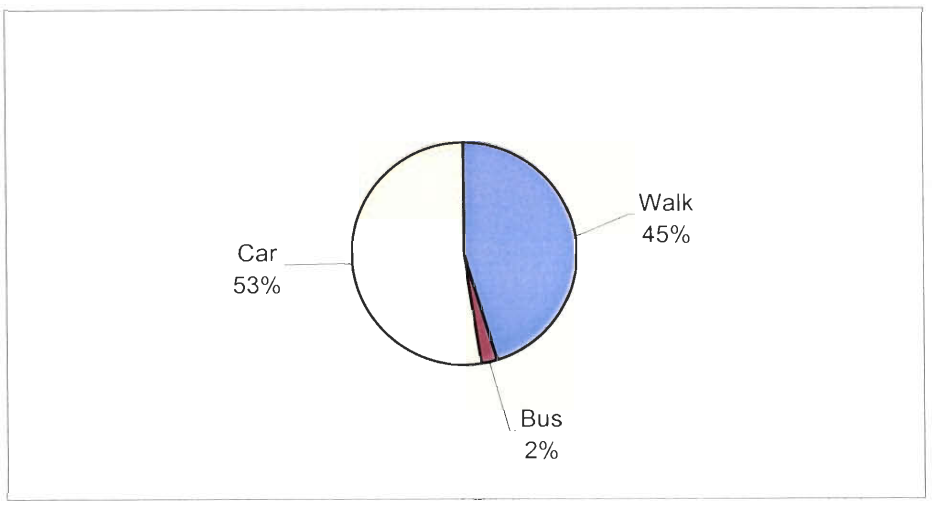



**Figure 1:** Current travel methods for Hatfeild students

The following graph shows how the students responded to the question: Which way would you like to travel to school? Students could pick more than one option when answering the question. Walking seemed to be very popular, as 29 students chose that as a desirable method. Cycling was also very favorable, with 12 students ticking that box.

With interest from the students, it would be practical to set up walking and cycling initiatives at the school.

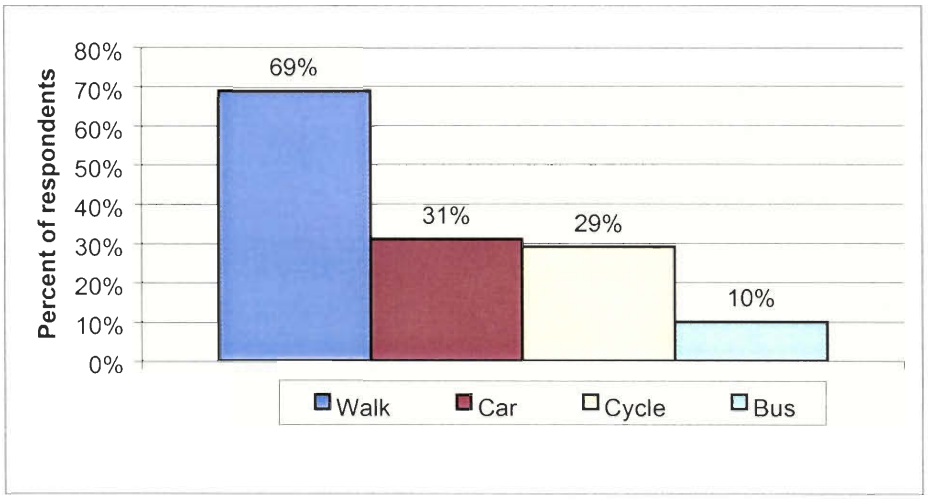



**Figure 2:** Hatfeild students' desired travel method to school

The next graph below shows a correlation showing the desired transport methods of students who are currently driven to school. The results show, while some would still like to use a car to travel to school, interest in walking (with 13 responses) and cycling (with 7 responses) present room for improvement. Some of the reasons children are currently driven are because they live too far or their parents have to drive to work or bring a sibling to a different school afterward.

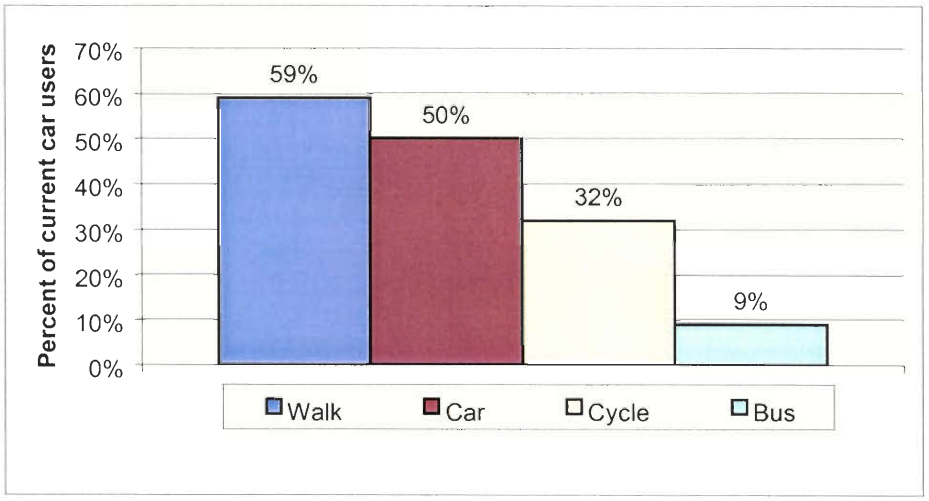
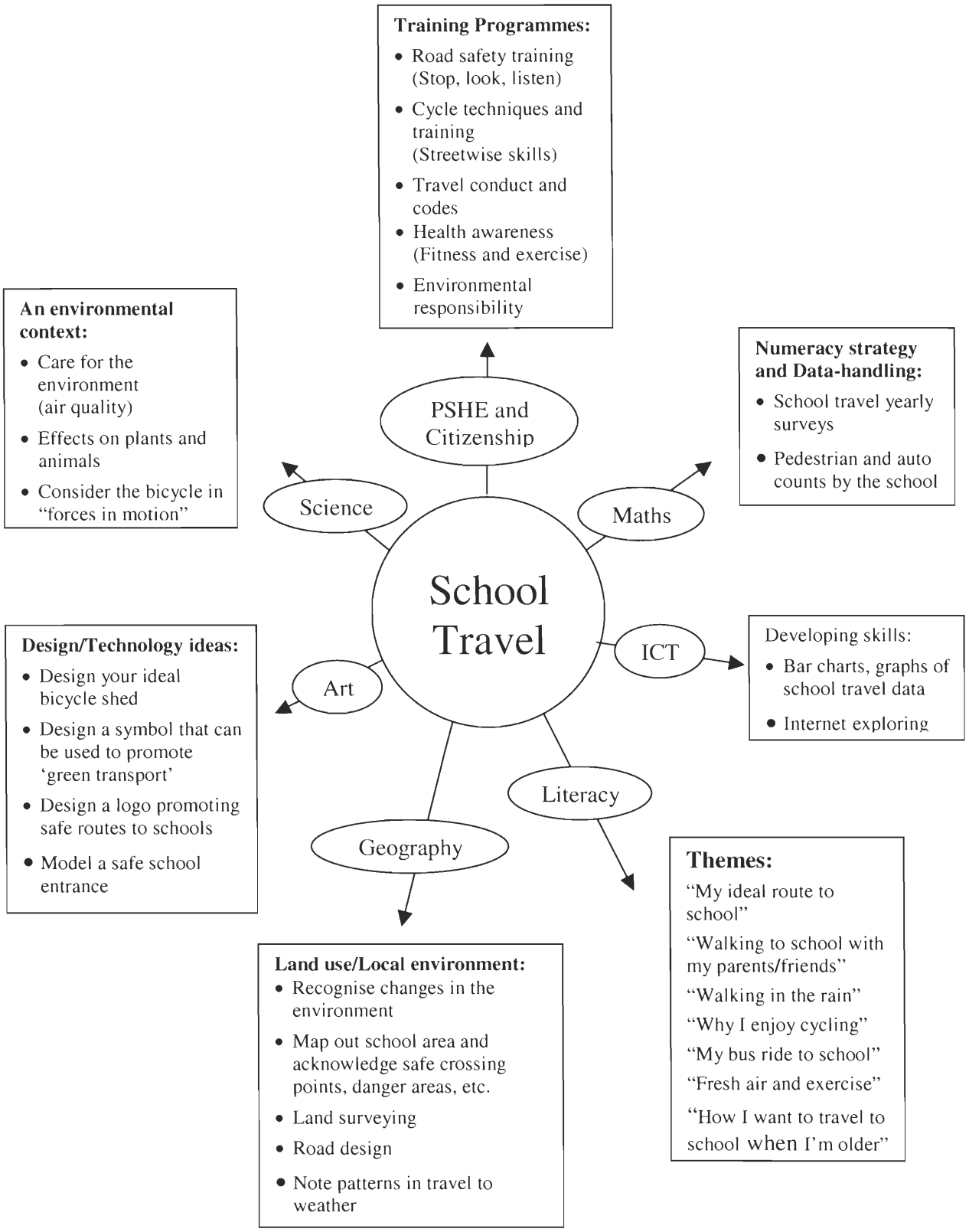
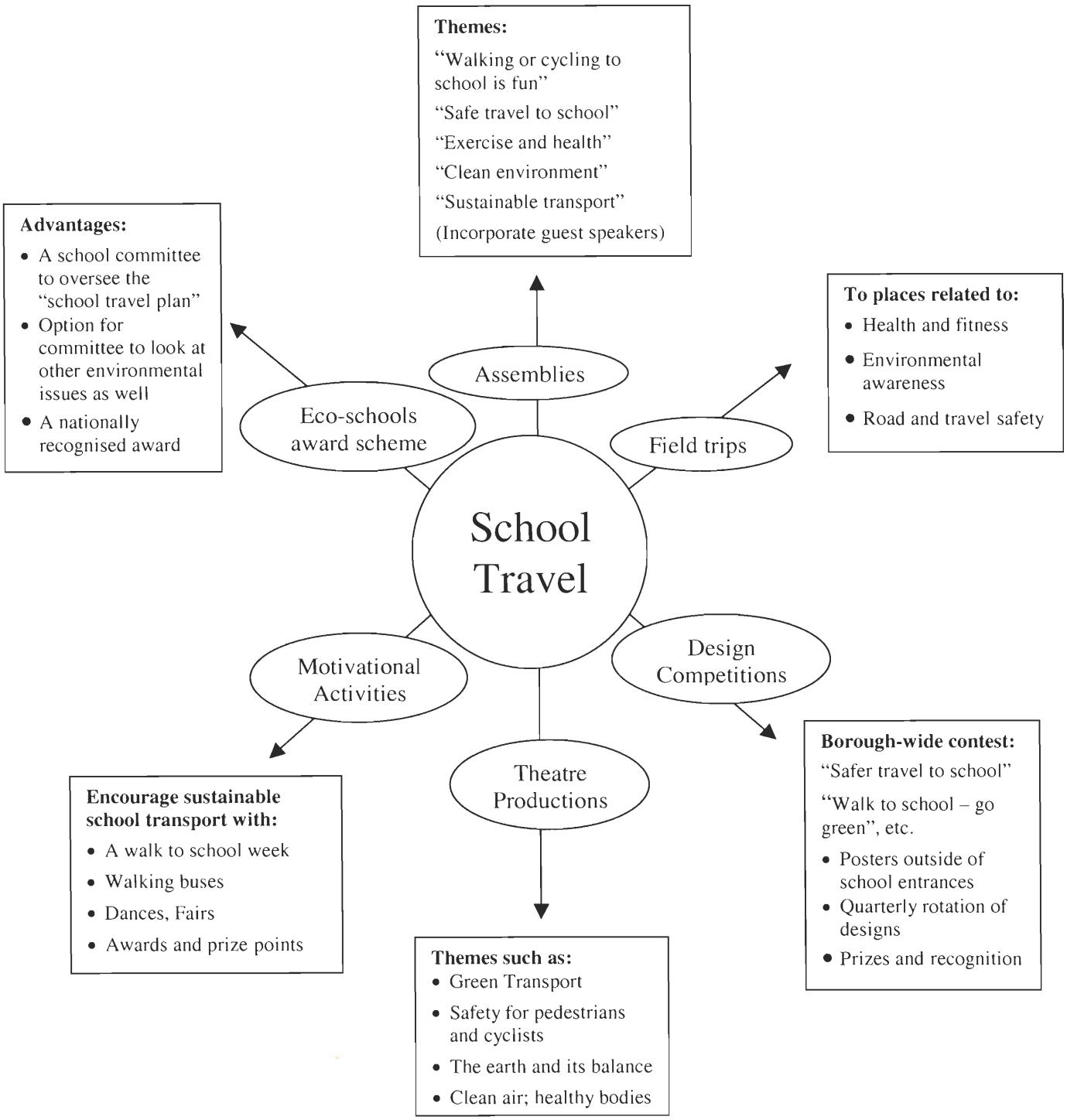



**Figure 3:** Desired travel method to school for students who are currently driven

# Appendix 5: Cross Curricular Educational Initiatives



## Appendix 6: Extra Curricular Education Initiatives



## Appendix 7: Contact Information

**Borough officials:**

- Mr Pete Thomas, Principal Transport Planning Engineer - phone: 8545-3192
  (Contact for information regarding the transport planning for the school, cycling, and traffic calming measures)

- Mr Eddy Taylor, Education Coordinator - phone: 8545-3280
  (Contact for Eco-school information, as well as incorporating school travel into the curriculum)

- Miss Pat Dunkley, Principal Accident Analysis and Prevention Officer – phone: 8545-3207
  (Contact for information on safety education and accident analysis)

- Mrs Chris Braidwood, Senior Safety Education Officer - phone: 8545-3206
  (Contact for assistance in planning out safe routes to school; walking bus routes)

**Address:** Merton Civic Centre
London Road
Morden
Surrey SM4 5DX

**Schools involved with this project:**

Bishop Gilpin First School
Mr Bob Cargill, Headteacher
Lake Road
London SW19 7EP
8946-6666

Hatfeild First School
Mr Greg Parker, Headteacher
Lower Morden Lane
Morden
Surrey SM4 4SJ
8337-1332

Hollymount First School
Mrs Valerie Martin, Headteacher
Cambridge Road
London SW20 0SQ
8946-0454

Wimbledon Park First School
Mrs June Pack, Headteacher
Havava Road
London SM4 4QU
8946-4925

Park House Middle School
Mr Richard King, Headteacher
Arthur Road
London SW19 7DZ
8947-4448

Ricards Lodge High School
Mrs Shelia Oviatt Ham, Headteacher
Ms Corrine Harper, Governor
Lake Road
London SW19 7HB
8946-2208

# Hollymount Travel Plan

**Produced by:**
Lynn Michalenka
Kathy Pacheco
Christian Pedersen

**In conjunction with:**
Merton Transport Planning Department
Merton Education Department

**May 2000**

# School Travel Plan
# Hollymount First School
# May 2000

**Description of School**

- **Student demographics**
  - Population of school: 284 total (181 - school; 103 - nursery)
  - Age levels: 2-3 (nursery); 4 (reception); 5-7 (years 1 through 3)
  - Gender: mixed
- **Description of area**
  - Urban; mostly residential
- **Map of location within the borough**
  - Refer to Appendix 1
- **Access arrangements (school entrances)**
  - Two school entrance on Cambridge Road
- **Existing pedestrian and cycle facilities**
  - Pavement in front of school entrance
  - Zebra crossing on Warpole Road
  - Speed Humps on Cambridge Road
  - Speed Humps on Lambton Road
  - Speed Cushions on Pepys Road

**Objectives of the School Travel Plan**

- **Primary focus**
  - To decrease the number of cars used on the journey to school, and consequently increase the safety, health, and fitness of the students
- **Secondary focuses**
  - To make the area outside the school, as well as routes to the school, safer and more pedestrian/cycle friendly to encourage fewer people to drive
  - To educate the students and their parents about travel codes
  - To develop working relations between the school and the Merton Council
  - To provide a model for the development of travel plans at other schools

**Benefits of the School Travel Plan**

- **For students**
  - Increase in safety
  - Better health and fitness
  - Heightened independence
  - Sustainable transport habits
- **For parents**
  - Child's safety, health, and independence
  - Convenience
  - Less road traffic
  - Eliminated or reduced school travel costs
  - Opportunities to volunteering and become involved in the school

- **For the school**
  - Less congestion around the school
  - Safer routes for the local community
  - Increased safety, health and fitness levels
  - Transport related curricular projects
  - Acknowledgement and recognition
- **For the borough**
  - Involvement with schools
  - Less traffic
  - Fewer accidents
  - Improved air quality
  - Better quality of life for residents
  - Catalyst for reduced car use everywhere

**Results from Data Collection**

- **Observation Results**
  - Map of school area with existing and proposed traffic calming measures (Refer to Appendix 2)
- **Student Survey Results**
  - Survey distributed to the students in April 2000 (Refer to Appendix 3)
  - Graphs showing students' current travel methods and desired travel methods (Refer to Appendix 4)
- **Parent Survey, Interview, and Focus Group Results**
  - **Safety Concerns**
  - Intersection of Cambridge Road and Lambton Road
  - Parking in no parking zones
  - Crossing Cambridge Road
  - New development in place of Cambridge School House
  - Intersection of Durham Road and Cambridge Road
  - **Reasons why students are currently driven to school**
    - Parents live too far away
    - Inclement Weather
    - Roads are too dangerous to walk/cycle on
    - Parent has to bring an another children to a different school
    - Parent has to drive to work after dropping child at school
  - **Supervisors of the school travel plans**
    - Valerie Martin, Headteacher
    - Maria Halpin, Parent Governor

**Travel Plan Recommendations**

- **Improvements to Safety Infrastructure**
  (For further information on infrastructure improvements, contact Pete Thomas)
  - Traffic calming measures
  - Intersection and crossing improvements
  - Cycle path improvements
  - Warning signs

- **Transport**
  (For further information on establishing school routes, contact Chris Braidwood)
  - Encourage walking
  - Establish a walking bus system
  - Begin a cycle programme
  - Increase the use of public transport
- **Education**
  (For further information on education initiatives, contact Eddy Taylor)
  - Cross-curricular programmes
    - Integrate school travel into current coursework (Refer to Appendix 5)
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    - School involvement and volunteer training sessions (such as for a bus or walking bus system)
    - Informational pamphlets, newsletters, etc.
      (Parent pamphlet distributed with this School Travel Plan document)

**Outline of Action Steps for Each Stakeholder**

- **Merton's responsibility**
  - Provide more detailed designs and costs of proposals
  - Consult with the school and the local community
  - Work with the school in developing and implementing initiatives
  - Provide cyclist and pedestrian training at the schools
  - Provide the school with maps of area wide cycle and pedestrian networks
  - Monitor the effectiveness of the implemented plans
  - Plan to extend school travel plans to other neighbourhood schools
- **School's responsibility**
  - Inform the parents, staff, and governors of proposals for safe routes to school
  - Seek governor's approval, where necessary
  - Review or establish the school's policies on walking and cycling
  - Research the potential for cycle storage facility areas
  - Investigate possibilities for providing pedestrian and cycle training
  - Establish an awards program for those who walk and cycle
  - Organise the travel initiatives (walking buses, escort schemes, etc.)
  - Integrate travel plan initiatives into curriculum work
  - Maintain contact and work in partnership with the borough
- **Parent's responsibility**
  - Talk about proposed safe school travel initiatives and their aims, so these initiatives are made known and become successful
  - Inform the school of their approval and/or concerns
  - Discuss the possibility of their children changing their travel patterns
  - Consider volunteering to be a walking or cycling escort
  - Through the PTA, help raise funds to incorporate transport initiatives
  - Inform school of possible sponsors for initiatives

- **Children's responsibilities**
    - Discuss the advantages and difficulties of walking and cycling to school with parents and friends
    - Tell your teachers what the school could do to encourage you to want to walk or cycle to school
    - Ask to see a map of safe routes
    - Find a friend to travel with
    - Follow safe routes where possible and obey travel codes

Every plan begins with an idea, but it can only become successful if followed through. School travel plans have many benefits, but require time, effort and co-operation from those involved. It is important that the school develop, in conjunction with the community and Merton Council, a final school travel plan and all its components. Department of the Environment, Transport and the Regions, in their recent efforts to develop school travel plans throughout the United Kingdom, have stressed the importance of community ownership with final plan. The school, community, and Merton Council should construct the following sections of the school travel plan together.

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Once a plan has been instated, the committee may choose to monitor its sucess. As suggested in the education recommendations, the school may employ the help of its students in conducting and analysing a yearly evaluation of the students' school travel methods through a survey. Based on the progress of the plans to date, the school may

consider updating and revising the plans. To summarize, the planning and monitoring processes for a school travel plan may follow the guide listed below:

**Implementation**

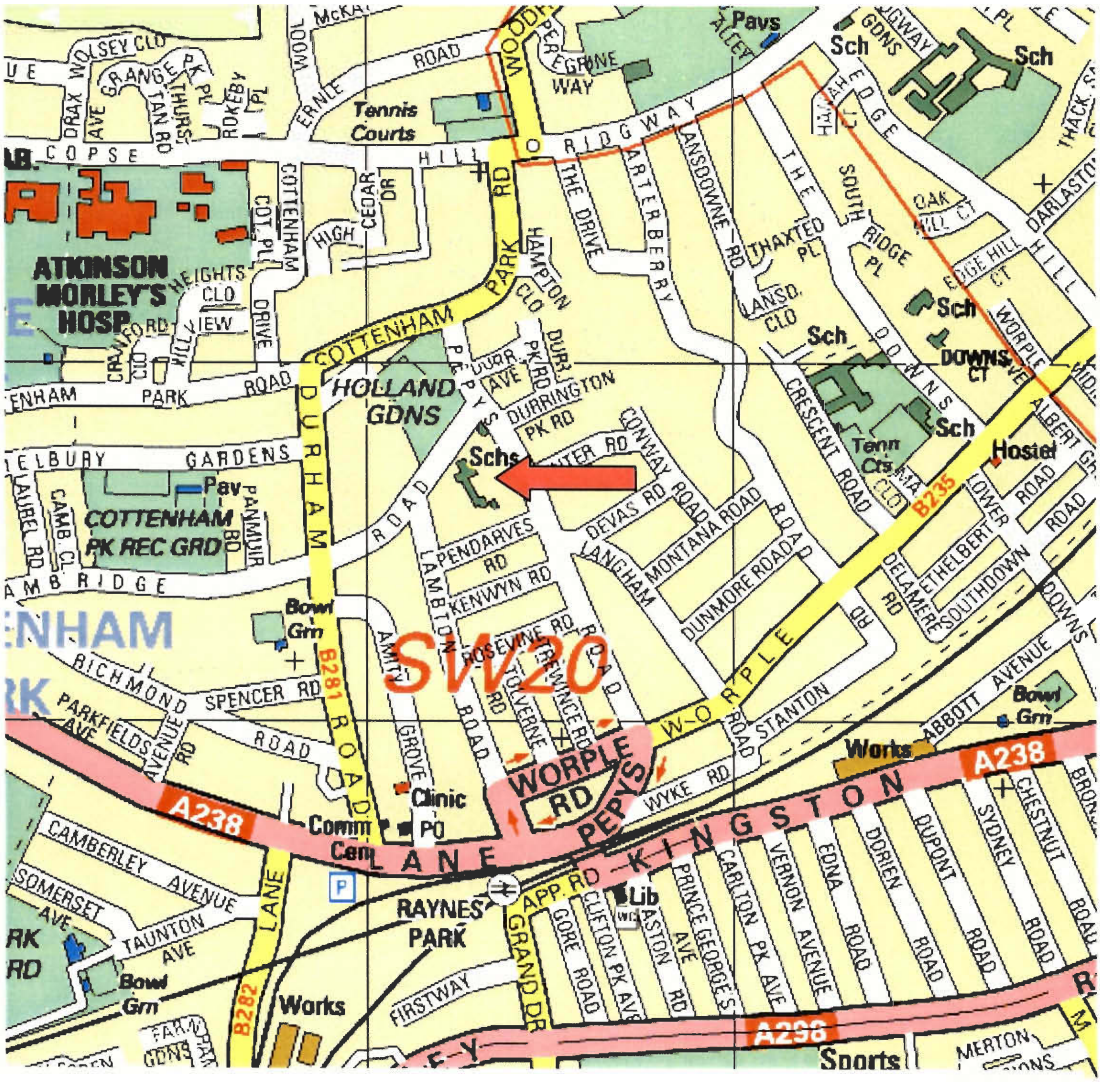
- **Identification of champion or committee to move proposed plans forward**
- **Projected programme**
- **Cost/funding source**

**Evaluation**

- **Establish goals**
- **Monitor the implemented plans**
- **Update and revise if necessary**

**Appendix 1:** Hollymount's Location Within Merton

## **Appendix 2:** The Area around Hollymount

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**Appendix 3:** Student Survey for Hollymount

## Hollymount School Travel Plans Student Survey April 2000

**1.)** How old are you? _____

**2.)** Are you Male or Female?

- ☐ Male
- ☐ Female

**3.)** How do you get to school most often? (please tick only one)

- ☐ Walk
- ☐ Cycle
- ☐ Get a lift (car)
- ☐ Take the bus
- ☐ Take the train
- ☐ Other (please tell us)_____

**4.)** How far from school do you live? (please tick only one)

- ☐ 0 – ½ kilometres
- ☐ ½ - 1 kilometres
- ☐ 1 - 2 kilometres
- ☐ 2 - 3 kilometres
- ☐ 3 or more kilometres
- ☐ Not sure

---

**5.)** Of the following methods, which ways would you like to use to travel to school? (tick all that apply)

- ☐ Walk
- ☐ Cycle
- ☐ Get a lift (car)
- ☐ Take the bus
- ☐ Take the train
- ☐ Other (please tell us)_____

**6.)** Why do you use the method you indicated in question 3? Please explain.

_____

_____

_____

_____

## **Appendix 4:** Student Survey Results

The following information is summary of the results from a student transport survey administered at the Hollymount First School in April 2000. The response rate upon collection of the surveys was 85%; this represents 153 student surveys returned.

From the graph below, it is shown that at the time the survey was administered, 42% of the students walked to school, 54% were driven, and 1% traveled by bus, train and cycled. The national average is that 42% walk, 2% cycle, 21% are driven, and 35% use public transport.

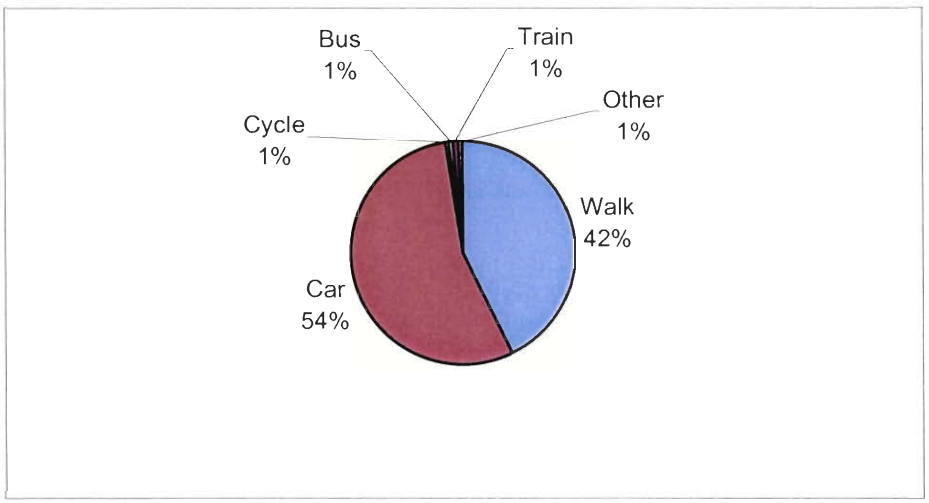



**Figure 1:** Current travel methods of students at Hollymount

The following graph shows how the students responded to the question: Which way would you like to travel to school? Students could pick more than one option when answering the question, therefore, the number of responses does not sum to 100%. Walking seemed to be very popular, as 76 students chose that as a desirable method. Cycling was also very favorable, with 59 students ticking that box. With interest from the students, it would be practical to set up walking and cycling initiatives.

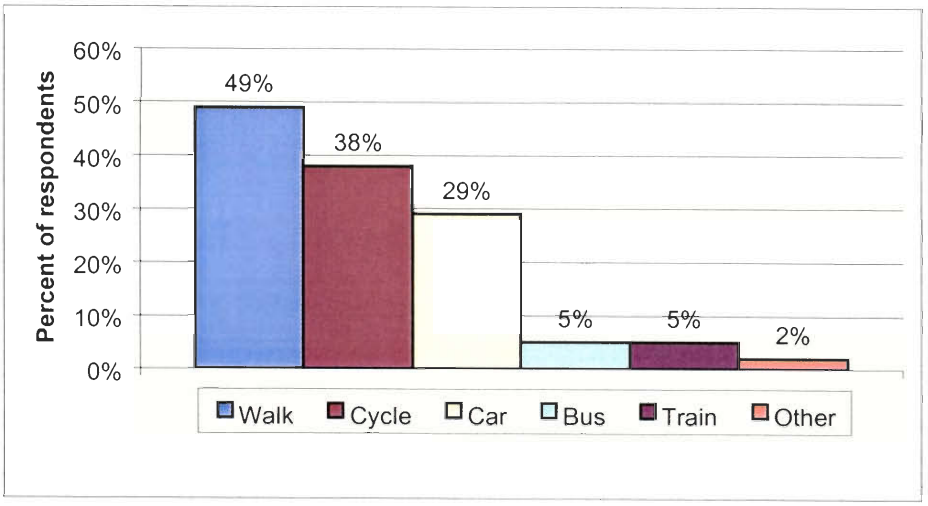



**Figure 2:** Desired travel methods for Hollymount students

The next graph below shows a correlation of the desired transport methods of students who are currently driven to school. The results show, while some would still like to use a car to travel to school, there is a high interest in walking (with 34 responses) and cycling (with 25 responses), and this present room for improvement. Some of the reasons children are currently driven are because they live too far or their parents have to drive to work or bring a sibling to a different school afterward.

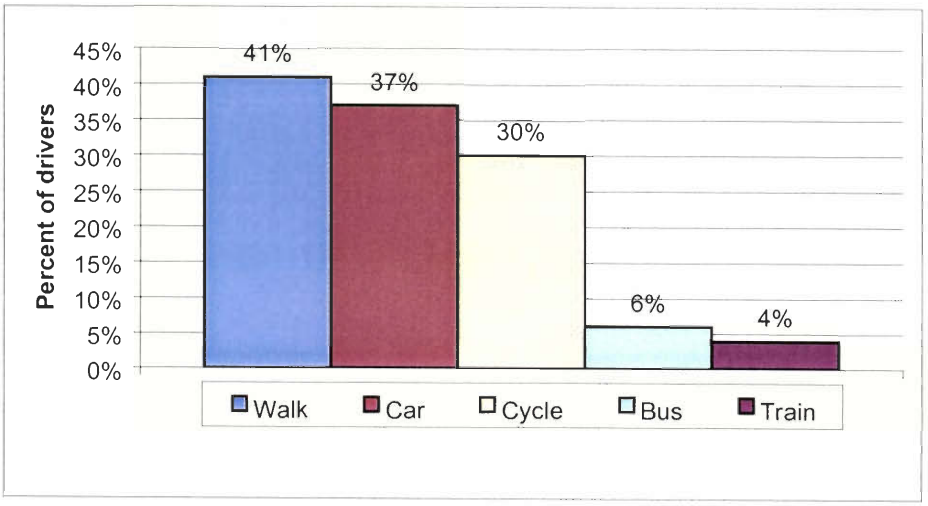
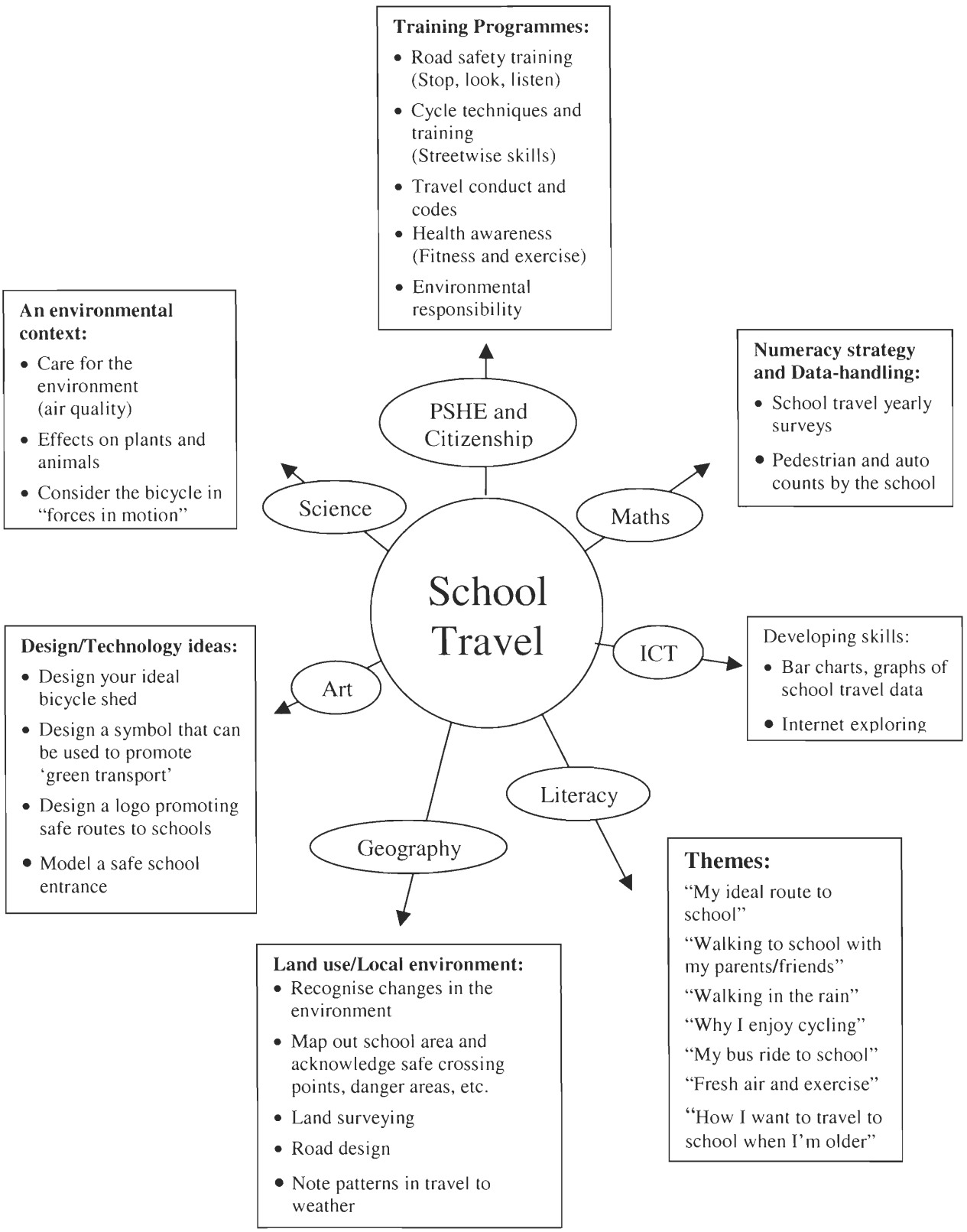
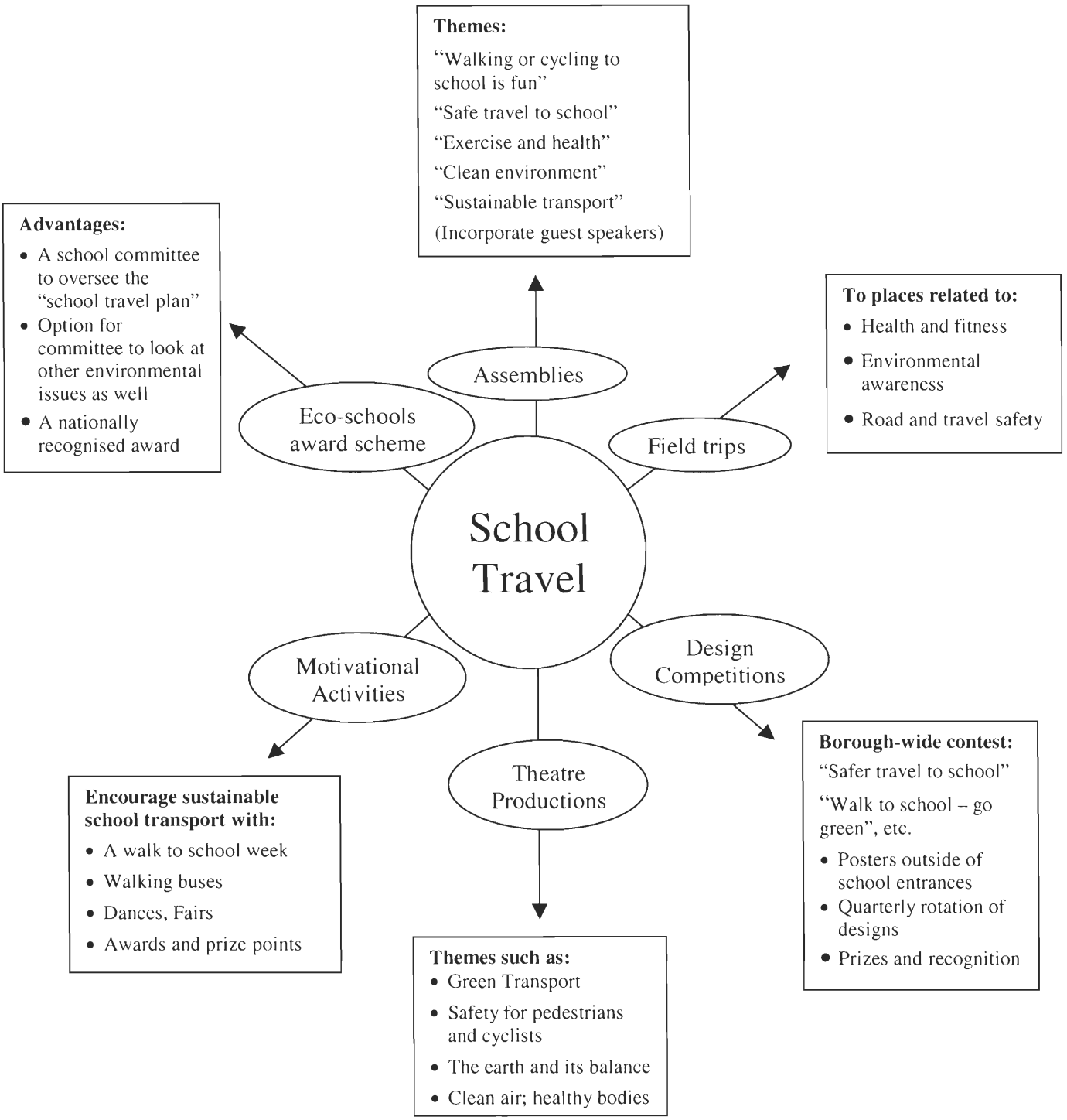



**Figure 3:** Desired travel method to school for Hollymount students who are currently driven

## Appendix 5: Cross Curricular Educational Initiatives



## Appendix 6: Extra Curricular Education Initiatives



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- Miss Pat Dunkley, Principal Accident Analysis and Prevention Officer – phone: 8545-3207
  (Contact for information on safety education and accident analysis)

- Mrs Chris Braidwood, Senior Safety Education Officer - phone: 8545-3206
  (Contact for assistance in planning out safe routes to school; walking bus routes)

**Address:** Merton Civic Centre
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**Schools involved with this project:**

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Park House Middle School
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London SW19 7DZ
8947-4449

Ricards Lodge High School
Mrs Shelia Oviatt Ham, Headteacher
Ms Corrine Harper, Governor
Lake Road
London SW19 7HB
8946-2208

# Wimbledon Park Travel Plan

**Produced by:**
Lynn Michalenka
Kathy Pacheco
Christian Pedersen

**In conjunction with:**
Merton Transport Planning Department
Merton Education Department

**May 2000**

# School Travel Plan
# Wimbledon Park First School
# May 2000

**Description of School**

- **Student demographics**
  - Population of school: 281 total (201 - school; 80 - nursery)
  - Age levels: 2-3 (nursery); 4 (reception); 5-7 (years 1 through 3)
  - Gender: mixed
- **Description of area**
  - Urban; mostly residential with a few businesses
- **Map of location within the borough**
  - Refer to Appendix 1
- **Access arrangements (school entrances)**
  - One school entrance on Havana Road
- **Existing pedestrian and cycle facilities**
  - Pavement in front of school entrance
  - Crossing supervisor on Durnsford Road, off of Havana Road, by a zebra crossing

**Objectives of the School Travel Plan**

- **Primary focus**
  - To decrease the number of cars used on the journey to school, and consequently increase the safety, health, and fitness of the students
- **Secondary focuses**
  - To make the area outside the school, as well as routes to the school, safer and more pedestrian/cycle friendly to encourage fewer people to drive
  - To educate the students and their parents about travel codes
  - To develop working relations between the school and the Merton Council
  - To provide a model for the development of travel plans at other schools

**Benefits of the School Travel Plan**

- **For students**
  - Increase in safety
  - Better health and fitness
  - Heightened independence
  - Sustainable transport habits
- **For parents**
  - Child's safety, health, and independence
  - Convenience
  - Less road traffic
  - Eliminated or reduced school travel costs
  - Opportunities to volunteering and become involved in the school

- **For the school**
  - Less congestion around the school
  - Safer routes for the local community
  - Increased safety, health and fitness levels
  - Transport related curricular projects
  - Acknowledgement and recognition
- **For the borough**
  - Involvement with schools
  - Less traffic
  - Fewer accidents
  - Improved air quality
  - Better quality of life for residents
  - Catalyst for reduced car use everywhere

**Results from Data Collection**

- **Observation Results**
  - Map of school area with existing and proposed traffic calming measures (Refer to Appendix 2)
- **Student Survey Results**
  - Survey distributed to the students in April 2000 (Refer to Appendix 3)
  - Graphs showing students' current travel methods and desired travel methods (Refer to Appendix 4)
- **Parent Survey, Interview, and Focus Group Results**
  - **Safety concerns**
    - Intersection of Wellington Road and Havana Road
    - Heavy traffic on Durnsford Road
    - Lorries on Havana Road
    - Intersection of Aurthur Road and Durnsford Road
    - Intersection of Havana Road and Durnsford Road
    - The bridge on Durnsford Road near the intersection with Aurthur Road
  - **Reasons why students are currently driven to school**
    - Parents live too far away
    - Inclement Weather
    - Roads are too dangerous to walk/cycle on
    - Parent has to bring an another children to a different school
    - Parent has to drive to work after dropping child at school
  - **Supervisor of the school travel plans**
    - June Pack, Headteacher

**Travel Plan Recommendations**

- **Improvements to Safety Infrastructure**
  (For further information on infrastructure improvements, contact Pete Thomas)
  - Traffic calming measures
  - Intersection and crossing improvements
  - Cycle path improvements
  - Warning signs
  -

- **Transport**
  (For further information on establishing school routes, contact Chris Braidwood)
  - Encourage walking
  - Establish a walking bus system
  - Begin a cycle programme
  - Increase the use of public transport
- **Education**
  (For further information on education initiatives, contact Eddy Taylor)
  - Cross-curricular programmes
    - Integrate school travel into current coursework (Refer to Appendix 5)
  - Extra-curricular activities
    - Integrate school travel outside of class time (Refer to Appendix 6)
  - Parental Awareness
    - School involvement and volunteer training sessions (such as for a bus or walking bus system)
    - Informational pamphlets, newsletters, etc.
      (Parent pamphlet distributed with this School Travel Plan document)

**Outline of Action Steps for Each Stakeholder**

- **Merton's responsibility**
  - Provide more detailed designs and costs of proposals
  - Consult with the school and the local community
  - Work with the school in developing and implementing initiatives
  - Provide cyclist and pedestrian training at the schools
  - Provide the school with maps of area wide cycle and pedestrian networks
  - Monitor the effectiveness of the implemented plans
  - Plan to extend school travel plans to other neighbourhood schools
- **School's responsibility**
  - Inform the parents, staff, and governors of proposals for safe routes to school
  - Seek governor's approval, where necessary
  - Review or establish the school's policies on walking and cycling
  - Research the potential for cycle storage facility areas
  - Investigate possibilities for providing pedestrian and cycle training
  - Establish an awards program for those who walk and cycle
  - Organise the travel initiatives (walking buses, escort schemes, etc.)
  - Integrate travel plan initiatives into curriculum work
  - Maintain contact and work in partnership with the borough

- **Parent's responsibility**
  - Talk about proposed safe school travel initiatives and their aims, so these initiatives are made known and become successful
  - Inform the school of their approval and/or concerns
  - Discuss the possibility of their children changing their travel patterns
  - Consider volunteering to be a walking or cycling escort
  - Through the PTA, help raise funds to incorporate transport initiatives
  - Inform school of possible sponsors for initiatives

- **Children's responsibilities**
    - Discuss the advantages and difficulties of walking and cycling to school with parents and friends
    - Tell your teachers what the school could do to encourage you to want to walk or cycle to school
    - Ask to see a map of safe routes
    - Find a friend to travel with
    - Follow safe routes where possible and obey travel codes

Every plan begins with an idea, but it can only become successful if followed through. School travel plans have many benefits, but require time, effort and co-operation from those involved. It is important that the school develop, in conjunction with the community and Merton Council, a final school travel plan and all its components. Department of the Environment, Transport and the Regions, in their recent efforts to develop school travel plans throughout the United Kingdom, have stressed the importance of community ownership with final plan. The school, community, and Merton Council should construct the following sections of the school travel plan together.

A champion and/or committee should be found to take charge of the project and prioritise the initiatives suggested in the school travel plan. The person or committee put in charge of the project should construct a projected programme for the implementation of these measures. It would also be beneficial to set target goals for the project; for example, the school could set such a goal: "It is aimed that the number of parents driving their children to school will decrease from 40% to 25% within one year of the implementation of a walking bus system." Throughout the planning process, cost and regulatory policies should be considered.

Once a plan has been instated, the committee may choose to monitor its sucess. As suggested in the education recommendations, the school may employ the help of its students in conducting and analysing a yearly evaluation of the students' school travel methods through a survey. Based on the progress of the plans to date, the school may

consider updating and revising the plans. To summarize, the planning and monitoring processes for a school travel plan may follow the guide listed below:

**Implementation**

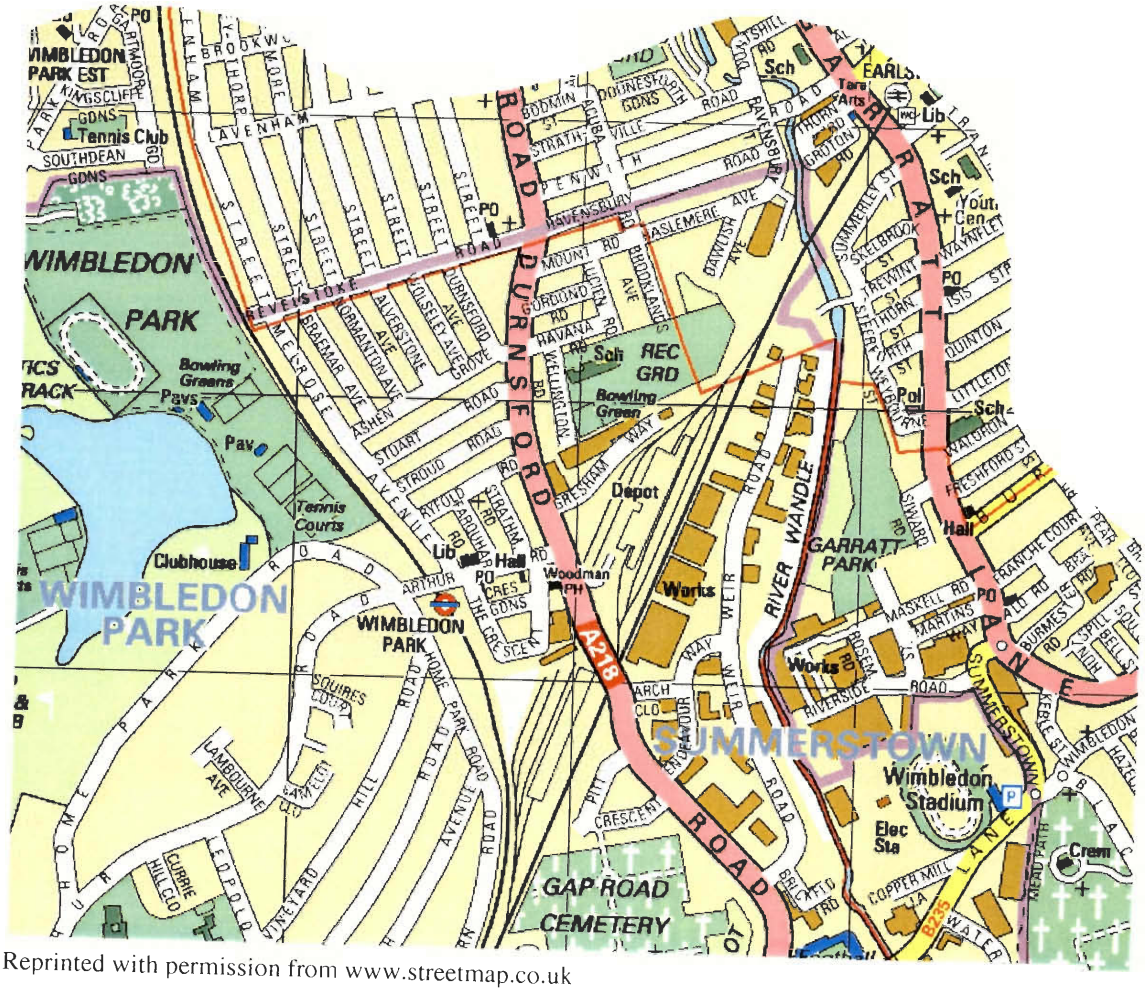
- **Identification of champion or committee to move proposed plans forward**
- **Projected programme**
- **Cost/funding source**

**Evaluation**

- **Establish goals**
- **Monitor the implemented plans**
- **Update and revise if necessary**

**Appendix 1:** Wimbledon Park's Location Within Merton

## **Appendix 2:** The Area Around Wimbledon Park




Reprinted with permission from www.streetmap.co.uk

**Appendix 3:** Student Survey for Wimbledon Park

**Wimbledon Park School Travel Plans Student Survey** April 2000

**1.)** How old are you? _____

**2.)** Are you Male or Female?

- ☐ Male
- ☐ Female

**3.)** How do you get to school most often? (please tick only one)

- ☐ Walk
- ☐ Cycle
- ☐ Get a lift (car)
- ☐ Take the bus
- ☐ Take the train
- ☐ Other (please tell us)_____

**4.)** How far from school do you live? (please tick only one)

- ☐ 0 – ½ kilometres
- ☐ ½ - 1 kilometres
- ☐ 1 - 2 kilometres
- ☐ 2 - 3 kilometres
- ☐ 3 or more kilometres
- ☐ Not sure

---

**5.)** Of the following methods, which ways would you like to use to travel to school? (tick all that apply)

- ☐ Walk
- ☐ Cycle
- ☐ Get a lift (car)
- ☐ Take the bus
- ☐ Take the train
- ☐ Other (please tell us)_____

**6.)** Why do you use the method you indicated in question 3? Please explain.

_____

_____

_____

_____

## **Appendix 4:** Student Survey Results

The following information is the results of a student transport survey administered at the Wimbledon Park First School in April 2000. The response rate upon collection of the surveys was 10%, this represents 20 surveys returned from the school population.

From the graph below, it is shown that at the time the survey was administered, 68% of the students who answered the survey walked to school and 32% were driven. This is not an accurate representation of the entire student body, since the response rate was low. The national average is that 42% walk, 2% cycle, 21% are driven, and 35% use public transport.

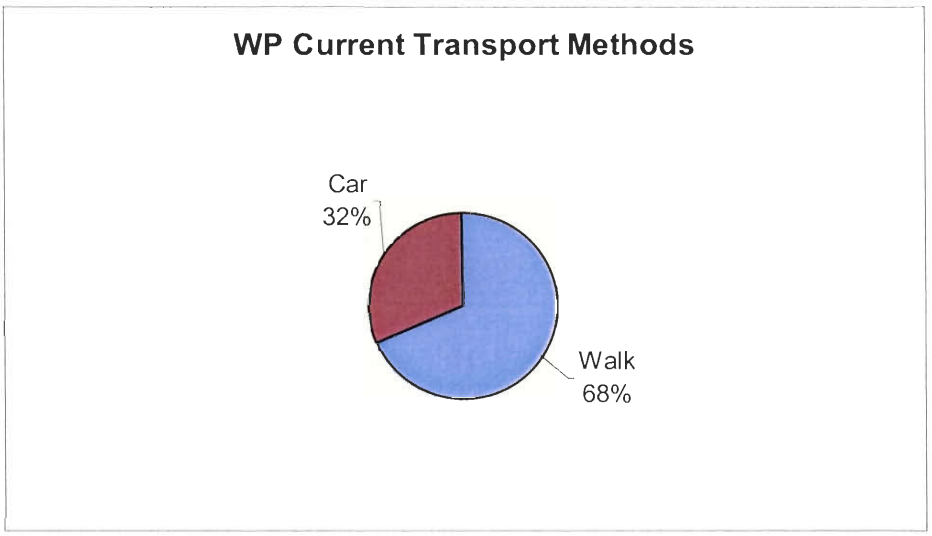



**Figure 1:** Current travel methods for Wimbledon Park students

The following graph shows how the students responded to the question: Which way would you like to travel to school? Students could pick more than one option when answering the question, therefore, the values may not sum to 100%. Walking seemed to be very popular, as 11 students chose that as a desirable method. Cycling was also

favored, with 5 students ticking that box. With interest from the students, it would be practical to set up walking and cycling initiatives.

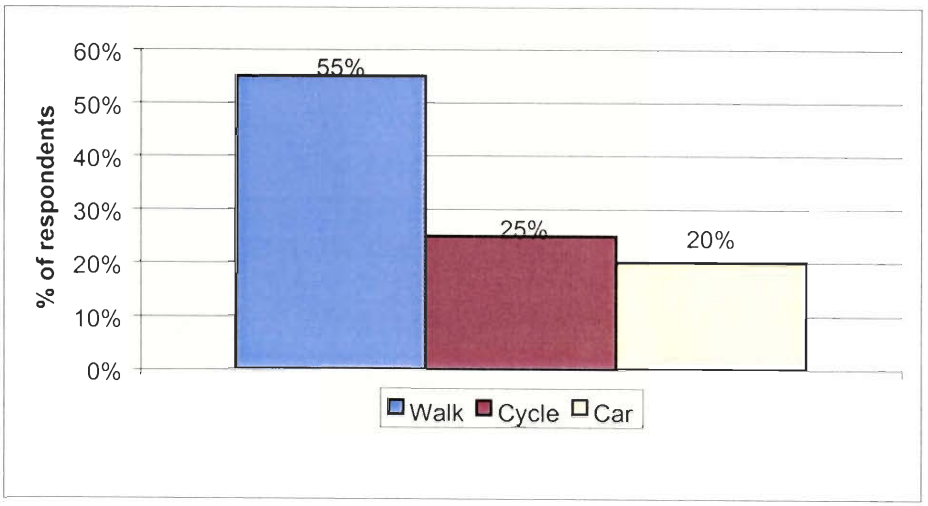



**Figure 2:** Desired travel methods of Wimbledon Park students

The next graph below shows a correlation of the desired transport methods of students who are currently driven to school. The results show, while most would still like to use a car to travel to school, there was interest in cycling (with 1 response) and walking (with 2 responses) present room for improvement. Some of the reasons children are currently driven are because they live too far or their parents have to drive to work or bring a sibling to a different school afterward.

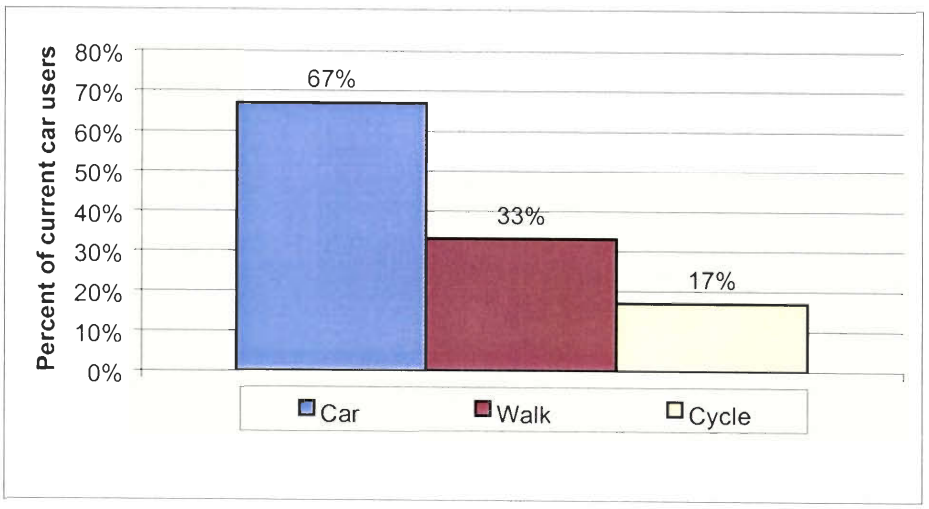
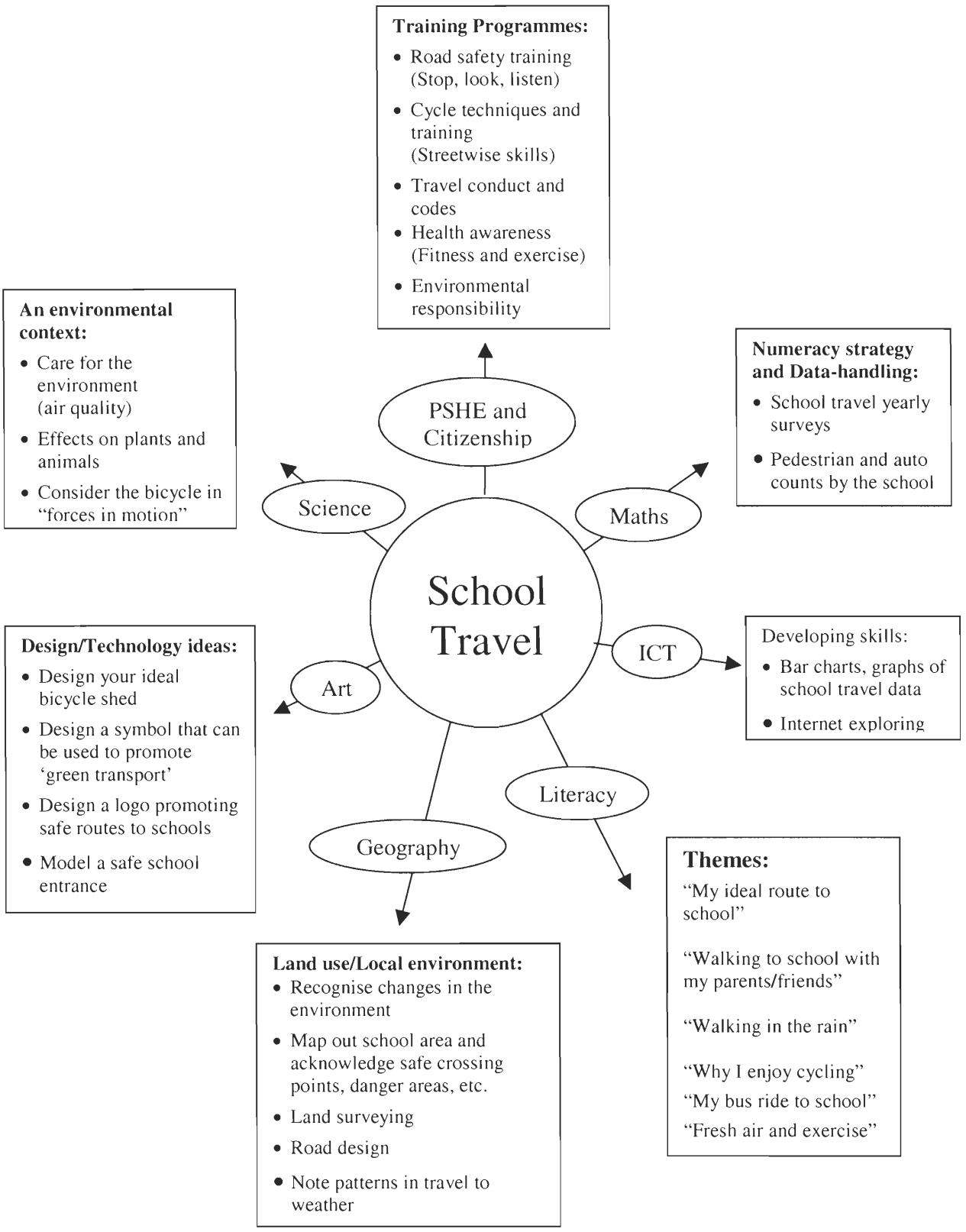
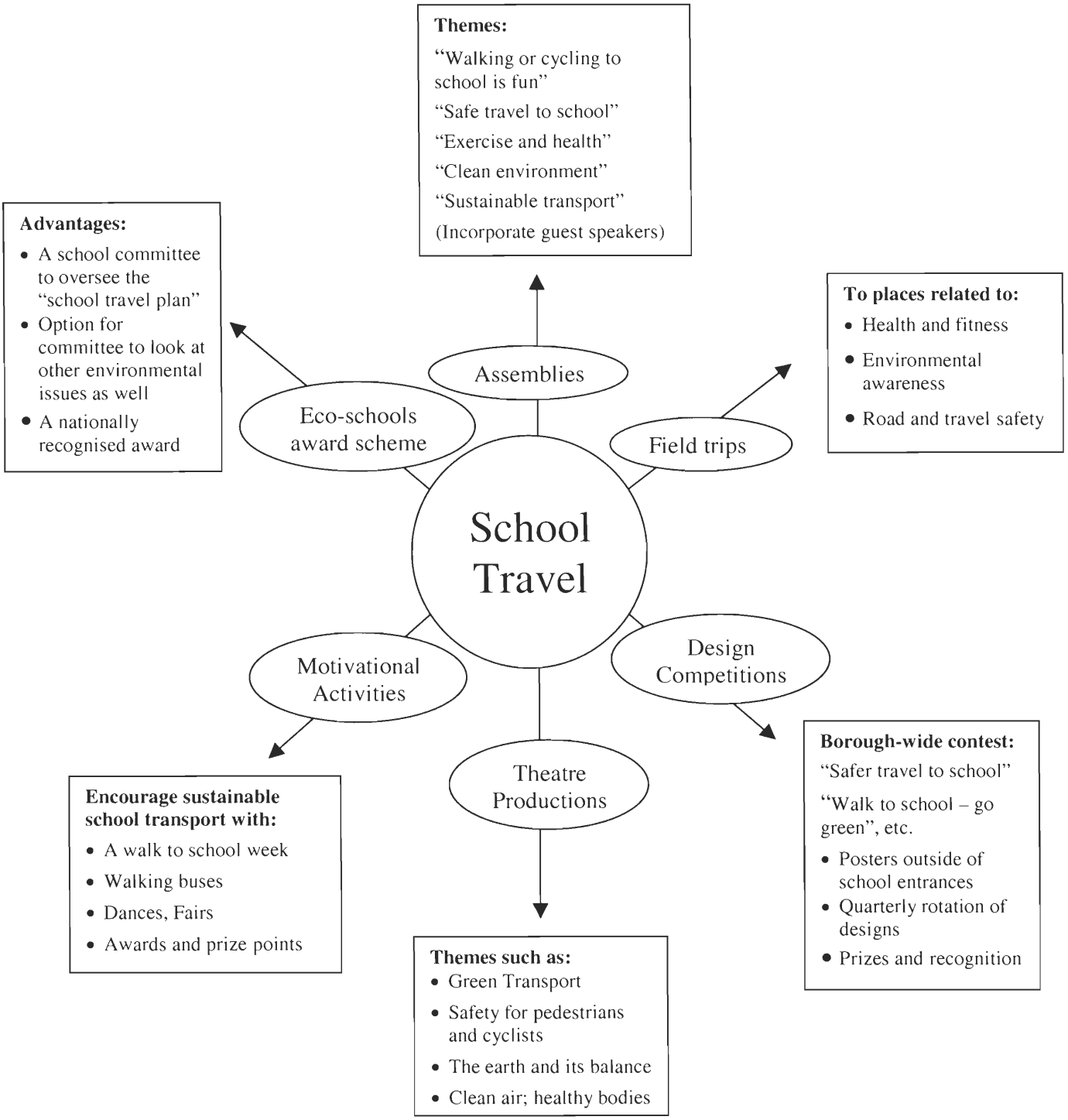


**Figure 3:** Desired travel method to school for Wimbledon Park students who are currently driven

# Appendix 5: Cross Curricular Educational Initiatives



## Appendix 6: Extra Curricular Education Initiatives



## Appendix 7: Contact Information

**Borough officials:**

- Mr Pete Thomas, Principal Transport Planning Engineer - phone: 8545-3192
  (Contact for information regarding the transport planning for the school, cycling, and traffic calming measures)

- Mr Eddy Taylor, Education Coordinator - phone: 8545-3280
  (Contact for Eco-school information, as well as incorporating school travel into the curriculum)

- Miss Pat Dunkley, Principal Accident Analysis and Prevention Officer – phone: 8545-3207
  (Contact for information on safety education and accident analysis)

- Mrs Chris Braidwood, Senior Safety Education Officer - phone: 8545-3206
  (Contact for assistance in planning out safe routes to school; walking bus routes)

**Address:** Merton Civic Centre
London Road
Morden
Surrey SM4 5DX

**Schools involved with this project:**

Bishop Gilpin First School
Mr Bob Cargill, Headteacher
Lake Road
London SW19 7EP
8946-6666

Hatfeild First School
Mr Greg Parker, Headteacher
Lower Morden Lane
Morden
Surrey SM4 4SJ
8337-1332

Hollymount First School
Mrs Valerie Martin, Headteacher
Cambridge Road
London SW20 0SQ
8946-0454

Wimbledon Park First School
Mrs June Pack, Headteacher
Havava Road
London SM4 4QU
8946-4925

Park House Middle School
Mr Richard King, Headteacher
Arthur Road
London SW19 7DZ
8947-4450
8947-4451

Ricards Lodge High School
Mrs Shelia Oviatt Ham, Headteacher
Ms Corrine Harper, Governor
Lake Road
London SW19 7HB
8946-2208

change your
travel habits
and be a model
for your child

volunteer to
be an escort
for a walking bus
or bus service

## What you can do to help!

allow for some
extra time in
the morning and
walk your child
to school

if you have no other
choice but to use the
car, do not park in
restricted areas

SCHOOL-KEEP CLEAR


**References:**

**1.** DETR (Department of the Environment, Transport and the Regions). June 1999. *School Travel Strategies and Plans - a best practice guide for local authorities*, p8.

**2.** Transport 2000. 1999. *A Safer Journey to School - a guide to school travel plans for parents, teachers and governors*, p4.

**3.** Sustrans. October 1999. *Safe Routes to Schools*, p2.

**4.** Sustrans. November 1996. *Safety on the Streets for Children*, p2.

**5.** Transport 2000. 1999. *A Safer Journey to School - a guide to school travel plans for parents, teachers and governors*, p13.


merton
moving ahead

...brought to you by students working with the borough of merton on the development of school travel plans...



# Safer Routes to School

**an information guide for parents and carers**

# Did you know...

The number of children walking to school has dropped below half from 60% in the past ten years, while consequently, the number of those driving has almost doubled to 29%.[1]

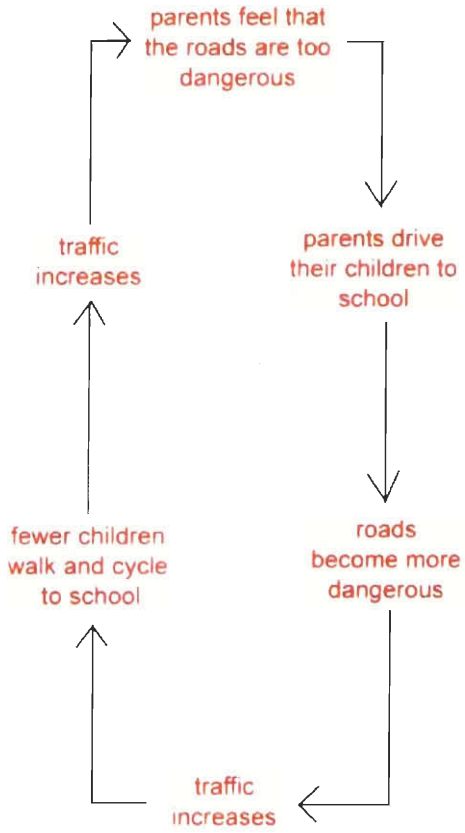
In urban areas, up to one in five cars on the road during peak traffic periods is being used to drive a child to school, even though, for 2/3 of all children, the journey is less than 2 miles.[2]

Car passengers in slow-moving traffic face pollution levels inside the car two to three times *higher* than those experienced by pedestrians.[3]

Many of today's children lack stamina, are short of breath after the simplest exercise and seem reluctant to walk anywhere.[4]

Children are more likely to be threatened by someone known to them, than by a stranger.[4]

## Breaking the Vicious Circle




# why walk?

## active living...

For fitness and active, healthy lifestyles, children should take part in regular physical activity.

## time to talk...

The journey to school is a great time to chat with your child, find out how things are going at school, and talk about things you see on the way.

## better road sense...

By walking with your child, you can help them build up their pedestrian skills so that they will be better prepared when they need to make journeys on their own.

## growing confidence...

Being physically active reduces stress and raises self-esteem; the journey to school can build independence and self-confidence.

## one less car on the roads...

We have to reduce the amount of traffic on the roads. If we go on as we are, we can expect traffic to rise by more than a third over the next 20 years. That's more fumes, more congestion, more road danger, and tighter limits on children's freedom.[5]

## THE SEVEN STEPS OF ECO-SCHOOLS

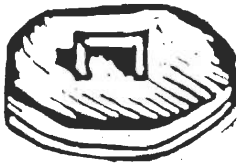
*Eco-Schools is a programme of seven elements that your school can adopt.*

### ONE: An Eco-Schools committee

This directs the school's involvement in the project. Ideally, the committee includes pupils, teachers, non-teaching staff, governors and parents.

### TWO: Environmental review

A process of examining the school's environmental impacts in order to identify targets for action and improvement. A comprehensive *Environmental Review* document is part of the Eco-Schools pack.



'Eco-Schools puts you in the picture of environmental concern. Every time you save resources or materials you are helping the environment. You can have as many pie-in-the-sky ideas as you like but they don't make a difference unless there is some form of action and application. Learning how to put your school in order and doing your bit will help save our wonderful world. Thank you for caring.'

David Bellamy
President of WATCH and the National Association of Environmental Education

'If we are to have a good environment in the next century we must all make changes in our lifestyles. Those changes will take place as we make choices about how we travel, buy things, dispose of our waste and manage where we live, work and relax. The Going for Green Campaign aims to promote and encourage these lifestyle changes. Eco-Schools is the ideal mechanism to do this in schools. It builds on the natural enthusiasm of children for environmental issues, developing a mature and responsible attitude to the environment and a commitment to practical action.'

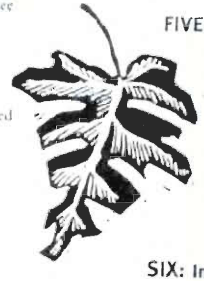
Professor Graham Ashworth CBE DL
Chairman – Going for Green Co-ordinating Committee

### THREE: Action plan

This gives specific and achievable targets with proposed completion dates that will show real success.

### FOUR: Monitoring and evaluation

This will ensure that progress towards targets is checked, amendments made where necessary and success celebrated.



### FIVE: Curriculum work

Curriculum materials are provided that give ideas on how to integrate environmental issues into lessons. Litter and waste is the curriculum theme in the first year. In subsequent years you can study water, energy and other environmental issues.

### SIX: Informing and involving

A publicity programme keeps the school and wider community involved and informed through displays, assemblies and press coverage. A day of action involves the whole school and wider community in meeting your targets.

### SEVEN: Eco-code

This is a statement of the school's commitment to environmental good habits.

Schools that establish all seven elements and achieve recorded improvements in the environment can apply for an Eco-Schools Award. This prestigious award comes in the form of a Green Flag to display inside or outside your school. Winners will also receive a certificate and an Eco-Schools logo to use on their headed paper or other publicity material. The award must be renewed every two years.

'The familiar territory for most children is very limited: home and school. Many of them now have a passion for environmental issues, but they need more opportunities to make the changes that can lead to a more sustainable lifestyle. Eco-Schools offers just the kind of practical encouragement that is needed – and if the children start to make a positive difference in and around school, then that experience will be transferred to home and family and the wider world.'

Professor Chris Baines
Environmental adviser, writer and broadcaster

Design by edit

*The Eco-Schools award scheme can help schools to:*

- *improve the school environment;*
- *reduce litter and waste;*
- *reduce fuel and water bills;*
- *increase environmental awareness;*
- *involve the local community;*
- *gain business sponsorship;*
- *gain local publicity;*
- *create links with other schools in the UK and Europe.*

## Citizenship

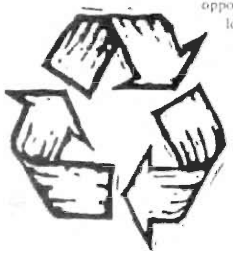
Through its democratic, participatory structure, Eco-Schools provides an excellent vehicle for experiencing active citizenship in school.

## Financial benefits

Being environmentally friendly can save you money. Water and energy saving programmes offer direct cash savings. Waste reduction can reduce refuse collection costs. Collecting cans and paper for recycling can raise money.

## Recognition and publicity

The Eco-Schools Award Scheme is a prestigious European environmental award. Taking part in the scheme will provide many opportunities for local publicity and promotion. Winning an award will show that your school has achieved the highest standards in environmental education and management.



You can apply for your Eco-Schools pack today. Schools can claim one copy free. The pack will give you all the information you need to decide whether to register your school. It contains:

- a handbook on how to run the scheme;
- an environmental review booklet;
- *Litter and Waste*, a book of curriculum ideas adaptable for all ages.

## Other organisations

Any other organisation interested in promoting or supporting Eco-Schools should contact the Eco-Schools manager at the address given below or telephone 01942 824620, fax 01942 824778. Local authorities will find it particularly useful in developing initiatives related to Local Agenda 21.

Please send your completed order form, with cheque or official order if necessary to:

**Eco-Schools, Tidy Britain Group, The Pier, Wigan, WN3 4EX**

Cheques payable to Tidy Britain Group. Please allow 28 days for delivery.

Eco-Schools is promoted and supported by the Going for Green campaign and the project is managed in the United Kingdom by the Tidy Britain Group. The idea was developed by the Foundation for Environmental Education in Europe (FEEE).

## ORDER FORM – ECO-SCHOOLS PACK

Please tick this box to claim your free copy ☐
(one per school)

Please send me ..... extra copies of the Eco-Schools pack at £10 (inc. VAT and P&P)

Name .....

Position .....

School/Organisation .....

Address .....

.....

County ..... Postcode .....

Tel no ..... Date .....

Please put a cross in this box if you do not want to be put on the mailing list for further Eco-Schools information ☐

# Eco-Schools

## towards a sustainable lifestyle

promoted by Going for Green
managed by Tidy Britain Group

Going for Green
Making a world of difference - together

TIDY BRITAIN GROUP

*Most young people care deeply about environmental issues. They can learn about these issues in the classroom as well as through the media. They want to help but knowing what to do and how to do it is not always easy. Eco-Schools could be the answer.*

*The Eco-Schools award scheme is a straightforward and flexible way for schools to extend environmental lessons outside the classroom and apply them to the day-to-day running of the school. It involves all members of the school community working together to improve the school's environmental performance.*

## THE BENEFITS TO YOUR SCHOOL

### Action for the environment

Eco-Schools gives teachers and pupils the opportunity to apply concepts and ideas from environmental education to the everyday life of the school.

### Relevant learning contexts

Because Eco-Schools applies knowledge and skills to real life issues, it enables pupils to see the relevance of what they learn in the classroom.

### Industry/business links

The UK Eco-Schools model is based on the British Standard No 7750 Environmental Management Systems and on EMAS, which is the European Community Eco-Management and Audit Scheme. Businesses that have adopted these schemes may be willing to share their expertise with you and your pupils.

### Local government links

Local authorities have expertise in many areas of environmental management and may be willing to help. Councils that are part of the Tidy Britain Group's *People and Places Programme* will be particularly keen to help in work on litter and waste.