The Future of our Cities

Key Unit

7

THE CONTEXT

50% of the world's population lives in cities. Today's cities consume three quarters of the world's energy and are responsible for at least three quarters of global pollution. Carbon use within transport accounts for 14% of total greenhouse gas emissions. Climate change resulting from increasing greenhouse gas emissions constitutes the world's major threat to human life and organisms. New or alternative mobility schemes have very different implications for greenhouse gas emissions and for health.

▶ **THE IMAGE**

▶ **In depth**

▶ **Activities**

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The Future of our Cities

The bus system of Curitiba, Brazil plays a large part in making this a livable city. The buses run frequently—some as often as every 90 seconds—and reliably, and the stations are convenient, well-designed, comfortable, and attractive. Vehicle movements are unimpeded by traffic signals with exclusive bus lanes to eliminate congestion. Around 70 percent of Curitiba's commuters use the bus to travel to work, resulting in congestion-free streets and pollution-free air for the 2.2 million inhabitants of greater Curitiba.

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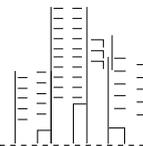
In depth

Air pollution, from many different sources (cars, factories, etc.), is a growing health concern in all cities. Vehicle-related air pollution causes thousands of cardiovascular and respiratory disease cases and deaths each year. Reliance on cars or motorcycles contributes to the shift towards physical inactivity in both developed and developing countries. Physical inactivity is linked to overweight and obesity.

There is a general rise throughout the world of public awareness of climate change and a growth in the numbers of people monitoring their carbon emissions, their carbon footprint. This is likely to have some effect in encouraging people to modify the way they move around.

The proportion of people walking or cycling to work varies from 32% in Copenhagen, to 22% in Tokyo, to 0.3% in Atlanta. The percentage of urban trips by motorized private transport as opposed to walking, cycling or public transport (which is typically 3–5 times more energy efficient than private transport), ranges from 89% in the USA, to 50% in western Europe, 42% in High Income Asia, to 16% in China.[1]

[1] Newman P, Kenworthy J. Sustainability and Cities: Overcoming Automobile Dependence.

Kenworthy J. Transport Energy Use and Greenhouse Gases in Urban Passenger Transport Systems: A Study of 84 Global Cities. Proceedings of the International Third Conference of the Regional Government Network for Sustainable Development.

New or alternative mobility schemes have very different implications for greenhouse gas emissions and for health. Investment in improved public transport can create great improvements in air pollution exposure, as well as traffic crash injury prevention and improved daily physical activity for public transport users, as they walk more than motor vehicle users.

A global trend is to develop alternative mobility scenarios that involve integrated public transport, better facilities for cyclists and pedestrians, and advanced traffic management. These are some of the innovations that are progressively introduced:

- Pedestrian zones
- Bicycle traffic lights
- One way streets for cars
- Two way streets for bicycles
- Reserved bus lanes for cyclists to use
- Priority for bikes at intersection
- Tram service

Technology also makes innovative traffic management systems possible, which improve traffic flow by providing: motorway incident detection, real-time road messages, and information on weather, traffic congestion and road speed.

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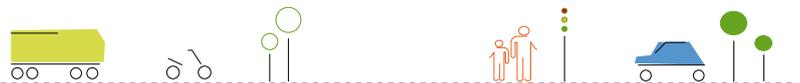
YOUR ideas

Urban pollution

■ **Brief**
To raise awareness on the link between road safety and pollution.

■ **Materials**
Pen and paper, white board and markers, projector, internet

http://video.google.com/videoplay?doc id=8847562857479496579

■ **Steps**
Students are going to watch Al Gore's *An Inconvenient Truth*. Before they watch it have them discuss with a partner the principle concerns surrounding road safety and list five of them. Get feedback from each pair and write the conclusions on the board.

Then have students watch Al Gore's film at home. In the following class repeat the discussion on road safety, but ask them to consider the film during their discussion. Get feedback and write the conclusions on the board as before, but this time once all the feedback is in hold a class debate on the film and road safety. You could try and ask the following questions to help or develop you own.

1. If we reduce pollution can we improve road safety?

2. How can we reduce urban traffic and improve parking?

3. What can we do to decrease gas emissions?

As a follow-up activity have students to register their carbon footprint:

http://www.carbonfootprint.com/calculator.aspx

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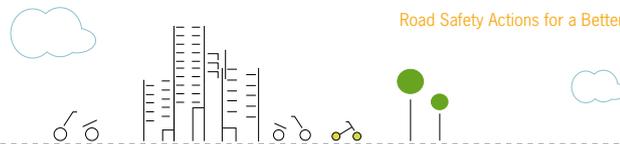
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■ **Objectives**
To develop a campaign for sustainable mobility

■ **Materials**
Internet, computer, pen, paper, projector

www.blogger.com

■ **Steps**
Students produce a blog to campaign for more cycle lanes in the community. They must research online the benefits of having more bikes leading to their school and then develop a project that contains text, photos and video to be published on a blog.

Students open an account with blogger to create their blog (following online instructions). They must make a summary of each day's research and publish it on their blog. Once they have completed their campaign they must send the link of their blog to their local authorities along with a letter describing the project.

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YOUR ideas

■ **Objectives**

To acquire knowledge and information concerning the history of the neighborhood with regard to safety and streets for all; further motivate the collaboration of other social groups such as the elderly; and acquire capacities in carrying out interviews and social surveys.

■ **Materials**

Past photographs of the neighborhood

■ **Steps**

In this activity our objective is to gather and analyze as much information about the history of the neighborhood and its streets, as is possible.

Community residents are a fundamental resource in this phase. The children should try to identify members of their families or neighbors - especially the elderly - who feel particularly attached to the site or to the neighborhood. They will certainly have interesting stories to tell. They may also possess some interesting photos of the area in past periods.

In many European cities, in the historic centers, it is usually very easy to find photographs, lithographs or paintings which depict sites of interest in very remote periods. In addition, elderly residents are often willing to contribute rich descriptions of specific places, or of the city in general, during their childhood. In many cases, especially with regards to squares or streets, their stories have evidenced many of the characteristics and elements which the children desire to win back: little or no auto traffic, diversity of outdoor social activities (ages, functions, etc.), rich natural features, etc.
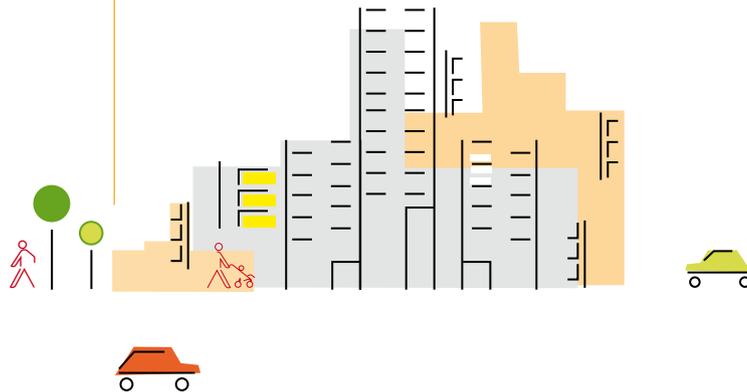
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In more recently constructed or urbanized areas, while it is usually more difficult to gather rich, stimulating descriptions of the past, the stories which residents tell can also be of great interest. In some cases, where newer housing developments have enveloped, but not eliminated, older "historic" settlements or single artifacts, it is often interesting to interview the older residents who recall the original functions and uses of the settings. For example, in Italy, at times "urbanized farmers" who still inhabit rural dwellings in city quarters or parish priests or custodians of old churches on the edge of public housing projects have been valuable partners in reconstructing the de-evolution of the social and natural ecology of the district and, in this way, have contributed to its future as a "city for all".

Generally, it is possible to find persons who are willing to relate interesting stories about earlier uses of streets and urban places and to communicate the meaning which those settings hold for them. In many cases, these actors can become important allies in the renewal processes which the children's project aims to activate.

The interviews should be transcribed and studied, the historic photos are to be reprinted, studied, exhibited publically and discussed in successive phases of the project. Ideas gathered in this way are important documents which prove to the children that "our neighborhood has not always been the same" and therefore its streets, places and social relations can be changed - for the better - in the future. Starting today!

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■ Objectives

Imagine and suggest changes to the local community to make it safer and accessible to all

■ Materials

Pens, large papers, markers.

■ Steps

Students are invited to draw a map of their community in small groups. They should draw their school and then draw the surroundings. They should remember to analyze and include:

- Public and green spaces
- Bicycle lanes
- Sidewalks
- Existing transport options
- Way in which traffic flows
- Accessibility of public spaces
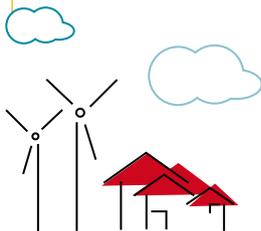
In addition, they can analyze what types of actors (children, the elderly, students, teenagers, workers, etc.) make use and enjoy each of the spaces they have drawn.

After finishing the map of their communities, children will be invited to think about changes that could be made to improve their community and make it a healthier and safer place to live. They will re-draw the map of their community with the proposed changes. Changes could include: more parks or green spaces, more bicycle lanes, new transport options such as tramways, car-sharing, more cross walks, more playgrounds, community centers, etc.

Each group will then present their drawings to the class. First they will show the map they drew of their community as it is today, explaining the main issues they identified. They will then show the map with their proposed changes.

As a class, they can vote one important change that they have identified in their community. They will think of ways in which it can be implemented, and propose the change to school or local authorities.

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An Inconvenient Truth

From director Davis Guggenheim, *An Inconvenient Truth* is an inspirational look at former Vice President Al Gore's fervent crusade to halt global warming's deadly progress by exposing the myths and misconceptions that surround it.

Interspersed with the bracing facts and future predictions, it is the story of Gore's personal journey from an idealistic college student who first saw a massive environmental crisis looming, to a young Senator facing a harrowing family tragedy that altered his perspective, to the man who almost became President but instead returned to the most important cause of his life. *An Inconvenient Truth* ultimately shows that global warming is no longer a political issue but rather, the biggest moral challenge facing our civilization today.

■ **http://video.google.com/videoplay?doc id=8847562857479496579**

Carbon footprint

A simple calculator which helps children to work out how much CO_2 their lifestyle (ways they travel, eat, etc.) emits. It shows the impact we have on the environment and how many small, personal and local actions can add up to a build global improvement.
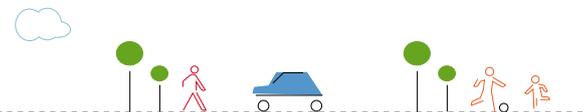
■ **http://footprint.wwf.org.uk/**

■ **http://www.carbonfootprint.com/calculator.aspx**

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Intergenerational collaboration:

Streets Ahead Project. The Streets Ahead Intergenerational Project was a month-long, multi-media, arts-based project which ran during 2005. The project involved approximately fifty older and young people from the Castlehaven and Gospel Oak area of Camden who would otherwise probably not have met each other. The young people were mainly Year-7 pupils (11-12yrs old). The older people ranged in age from mid-60s to late-80s. The central theme of the project was an exploration of issues around street life, neighborhood and community, addressing some of the community safety concerns in the area.

Detailed manual available at

■ http://www.ccip.org.uk/Libraries/Local/949/ Docs/Themed%20pages%20-%20Arts/ StreetsAheadProjectReport.pdf

...main streets, high streets, mean streets, my streets, your streets, posh streets, poor streets, our streets, safer streets, in the streets, on the streets, street wise, street cred, street life...

Streets Ahead

An "Older Voices in Renewal"
Intergenerational Demonstration Project
January – April 2005

Research by the Catch22 Association showcases the potential for intergenerational practice to improve relations and change attitudes between generations, thereby improving feelings of community safety, reducing the fear of crime, improving wellbeing amongst the participants, and generating social capital within the community. For more information see:

■ http://www.catch-22.org.uk/News/Detail/Improving-community-safety-through-intergenerational-practice
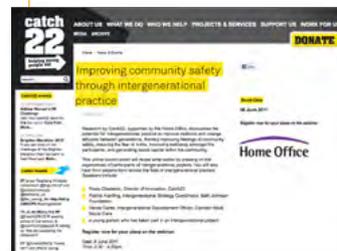
Reclaiming city streets for people

■ www.completestreets.org

Chaos or quality of life? Publication and manual with numerous case studies produced by the EC-DGE.

Download at:

■ http://ec.europa.eu/environment/pubs/pdf/streets_people.pdf

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