

MITIGATION PROJECT

SETTING UP A WALKING BUS

MAIN SUBJECTS

Climate change attenuation: school transportation

GRADE

K1-5

TARGET

Schools in urban areas

OVERVIEW

In this project, students in urban areas plan, organise and set up a walking bus in order to reduce car journeys between their homes and the school. The students conduct a survey in the community, work on setting up several itineraries and address different issues related to safety, signage, timetables, etc. They also work on communication with the local authorities and parents, in order to implement the walking bus.



STEP LIST

STEP 1 – How do we get to school?	Students conduct an intergenerational survey among their families, to investigate how daily transportations has evolved over the past 50 years.
STEP 2 – Which itinerary is the best for our walking bus?	The class identifies, on a large map of the neighbourhood, the place where each student lives in order to decide an initial itinerary for the walking bus.
STEP 3 – What are the rules to follow?	A person from the town hall comes to the school to help validate the chosen itinerary and define the operating rules of the walking bus.
STEP 4 – Is our itinerary feasible?	Students test the routes they have identified for the walking bus and check whether they are practicable and safe.
STEP 5 – How to share informations?	The class plans how they will share information on the walking bus: for the parents, for the journey and for the municipality.
STEP 6 – Test and launch	Ready for D-day!
STEP 7 – Perpetuation	How can students ensure the project's perpetuation in the long term, involving the whole school and, beyond, the whole community?

STEP 1

HOW DO WE GET TO SCHOOL?

Start the project by debating with the students on the effects of transportation by car on climate change. Ask each student to answer a short questionnaire with basic questions like:

- *How do you usually get to school?*
- *How long does it take you?*
- *How far is the school from your home?*
- *Would you be willing to do the journey on foot, if you were accompanied by parents?*

A quick discussion shows that very often, in urban areas (at least in developed countries), students go to school by car, despite the short distance to travel.

Ask them if they think it was the same for their parents or grandparents, and how they can investigate this question. The class will then decide to conduct an intergenerational survey, targeting parents and grand-parents.

Let the students define the content of the questionnaire and organise the survey. As an example, a possible questionnaire could include the following questions:

- *How old are you?*
- *How did you get to school when you were a child?*
- *How long did this take you?* (Less than 10 min; between 10 and 30 min; more than 30 min).
- *How far away was your school?* (Less than 1 km; between 1 and 3 km; more than 3 km).
- *How do you go to work (or another destination requiring daily transportation)?* Detail this route by indicating the distances and travel times for each mode of transport.
- *In your opinion, how has the comfort of the means of transport evolved?*
- *If a walking bus (pedestrian transportation where students are chaperoned by adults) was installed, would you be willing to use this system for your child's journey to school?*
- *Would you be willing to help set up a walking bus, by accompanying children who choose to walk to school?*

After the students have conducted the survey among their families, compare the results¹. In a lot of developed countries, we observe that while parents and grandparents had to travel long distances to school, they did so on foot or by bike. Today, although the



school is often closer to home, more and more people are taking their children to school by car.

Talk about the advantages of promoting walking as a way to get to school: it avoids CO₂ and fine particle emissions, it reduces car traffic near schools, thus improving road safety, it helps people to “rediscover” their neighbourhood, etc.

Discuss the term “walking bus” and the difference between a “free walk to school” and a “walking bus”. A walking bus is public transportation with rules (stops, schedules, routes), where students are chaperoned by adults (parents, in general, called the “drivers”) to go to school.

Analyse and discuss with the students the possibility of setting up a walking bus and the necessary steps. Different ideas may be suggested:

- Identify where every student lives.
- See where the bus stops can be placed.
- Define routes.
- Define schedules.
- Find “drivers”.
- Check whether other classes in the school would be interested.
- Communicate with parents (give them the map and schedules, explain the principle).
- Communicate with the town hall and the police (for safety reasons).

¹ This activity can also be an opportunity to work on mathematics (statistics, averages, sums) or the representation of information (tables, graphs).

STEP 2

WHICH ITINERARY IS THE BEST FOR OUR WALKING BUS?

Find a large map of the city or of the neighbourhood (depending on the size of the city), and at least one small copy of this map for each student group.

→ NOTE

It is better to have a “satellite” view rather than a “map” view, so that you can distinguish individual houses from buildings. When it comes to choosing the location of bus stops, this information will be important because the route should be convenient for the largest possible number of students: buildings are preferable to houses, because the stop will benefit more families.

First, students locate the school and their home on the map, so that everyone can see how the students’ homes are distributed.



Three lines have been defined in this K-5 class.

Then, the class proposes several possible routes and discusses which ones are the most suitable (safety, traffic, ease of crossing, pavements). A walking bus can contain several “lines” that meet or separate, so that no student needs to walk for more than 15 minutes.

In order to facilitate the work of the class, and later the management of the walking bus, we recommend limiting the bus routes to three lines. Some students will note that the layout of the lines forces them to take a detour: these detours must be minimised, while understanding that it is impossible to have the walking bus pass in front of each house. Once the lines have been drawn, the stopping points (the “bus stops”) need to be determined.



STEP 3

WHAT ARE THE RULES TO FOLLOW?

For this step, even if it is not essential, it is very interesting to bring in a person from the town hall or, even better, from the police. A police officer can help validate or dismiss the proposed route(s) chosen by the students (based on safety issues). The policeman can also help to find the best stopping points for the walking bus. Otherwise, the teacher can play this role.

CLASS DEBATE

One issue, related to schedules, needs to be discussed with the whole class: *Will the walking bus be used to get to school only, or to go home from school as well?* In order to take a decision, it is necessary to first identify the arrival and/or departure times of the students (daycare, extracurricular activities, etc.),



and check whether the walking bus will be useful for a large enough number of students. The class can also decide to define two different schedules and/or to “close” one line for the journey home after school.

GROUP DEBATE

→ Bus timetable

One group can work on setting the walking bus timetable taking into account the travel time, the time of arrival at school and the different stopping points. Keep in mind the travel time to school should not exceed 15 min. To avoid extending the travel time, it is important to make short stops (maximum 1 minute).

→ Number of “drivers” and “guides”

Taking into account that two to three guides are needed for 15 students, a group will have to work on a “parents’ schedule”. They will identify on the questionnaires the parents that have accepted to accompany the walking bus². They can create a large schedule to display in the classroom (or school) with parent availability grids according to the days of the week and also a grid for students (in order to know when each one will be taking the walking bus). Plan a “test day” to check the itinerary and organise the walking bus.

→ Walking bus Charter

Another group can work on drafting a charter for students and parents. They will describe the rules of the walking bus: the actions to be taken if there is a delay or if a student/parent does not show up, the commitments of each person, insurance issues, etc. This charter can be signed by each student and parent.

→ Safety rules

A group will be responsible for determining the safety rules for the walking bus. The safety rules can later be included in the charter. *How do the students walk, how should they be dressed (do they need to wear a safety vest), which traffic regulations apply to the walking bus?* Students need to know pedestrian safety skills. Information can be found on different national websites³ and taught in the classroom or sent home with students to practice these skills with their families.

STEP 4 IS OUR ITINERARY FEASIBLE?

It’s time to test the organisation of the walking bus. This test requires that some future accompanying parents be available for the outing. In addition to the parents, it is beneficial (but not essential) to have a police officer accompany the walking bus in order to monitor safety.

2 Since the questionnaires were distributed before this work on the walking bus began, it is possible that parents replied “no”, simply because they did not really know what a walking bus involved. In this case, this question can be asked again in light of the work the students did in this lesson.

3 For example: <https://www.livingstreets.org.uk/walk-to-school> (UK), <http://www.walkbiketoschool.org> (US) or <http://www.marchons-verslecole.com> (France)

→ Contact details

One group will be responsible for collecting the address and phone number(s) of each family. The file should contain: the names and surnames of each student and his or her parents, their addresses and telephone number(s). This file will be provided to all “drivers” and “guides” of the walking bus. Conversely, parents will have the contact details of the accompanying persons.

→ Walking bus pass

One of the groups can design a “pass” that includes (at least):

- “Student pass”: name, school, class, stop, line, person to contact if there is a problem.
- “Driver pass”: name, school, line.

→ NOTE

The passes can be properly designed after the content has been validated.

CONCLUSION

Since the students’ groups have worked on different aspects of the project, it is important to share everything and ensure that the whole class approves (or improves) what has been done.

One issue is very important to discuss: *What do the students do if there is a delay?* For the walking bus to run smoothly, everyone must agree that the walking bus cannot wait for a student. This would lead to everyone else being late, delaying the schedules for the whole line, and resulting, in the end, in the project being abandoned. A walking bus is a public transport system, it is on time. A “real” bus would not wait for latecomers either.

PREPARATION OF THE OUTING

Introduce the guiding parents and remind everyone that today’s objectives are to test the lines, check travel times, safety and the route itself.

DURING THE OUTING

Organise the class into several groups (one group per line) or stay together as a whole class.

Under your supervision, the supervision of a few parents and, ideally, a police officer, the students will check the safety and convenience of the route.

The students take pictures and notes: this sidewalk is too narrow, this road has too much traffic, an element making it easy to identify the bus stops, etc. They mark the places/crossings they consider to be critical on the city map.

The travel time between each bus stop is timed.

BACK IN CLASS

Students share their impressions of the routes and their commented maps. The routes are validated, or modified if necessary, either due to safety or practicality constraints (for example, they may decide to add a few extra stops if the distance between two stops exceeds 5 minutes).



STEP 5 HOW TO SHARE INFORMATIONS?

CLASS DEBATE

Ask why and how the class will share information about the walking bus with the different parties.

Discuss with the whole class the advantages of walking compared to driving to school: less pollution, less CO₂ and fine particle emissions, less noise, benefits from a physical activity, discovery of the neighbourhood.

Provide some key figures to complete those mentioned below. The following information concerns France, and may be contextualised to each country before being shared with students:

- In Paris (except suburbs), 50% of the trips between home and the school are made by car⁴.
- In France, 40% of the daily car trips are less than 3 km long, while 50% are less than 5 km long⁵.

GROUP DEBATE

You can have each student's group work on a specific aspect of the communication. In the end, they should produce a single text, one poster and one "pass".

→ Laying out the route

This group works from a map and plots the different lines, according to what has been defined in the pre-

vious step. The stops and timetables should also be drawn on the map.

→ Final "pass" design

This group defines and finishes the final design of the student and driver "passes" so that they can easily be duplicated and filled.

→ Communication with parents

The aim of this group is to convince parents of the benefits of the walking bus. To do this, the students will have to create flyers, letters, posters, etc. containing information on the walking bus, the benefits of walking, reasons for them to get involved (do not overlook the "social" effect of the walk: discovery of the neighbourhood, citizen involvement and meetings between families, etc.).

→ Communication within the school

This group does similar work to the previous one but addresses other classes and the school administration. (The routes/stops defined by the class will need to be modified if the entire school is involved in the project).

→ Communication with local authorities

The aim of this group is to raise awareness in the town hall. To do this, the students think about events

4 Global Transportation Inquiry (Paris, 2009-2011).

5 French Ministry for the Ecological and Inclusive Transition (2018).

that they could organise: an official launch, a public debate, an article in the local newspaper, interviews.

→ Signage to be placed in the neighbourhood

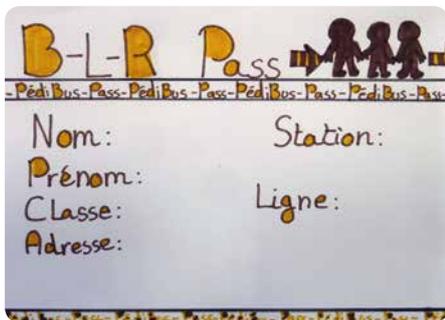
In this group, the students design the labels, posters and signs that they will place along the walking bus route, but also in the neighbourhood to inform and raise awareness among the inhabitants.

CONCLUSION

Once again, it is important to share the work of all groups and ensure that the whole class approves (or improves) what has been done by each group.

You can eventually show examples of different communication outputs made by professionals and discuss on what differences can be found between the outputs produced by the students and the professional ones. This may help the students propose suggestions to improve their visuals (to make them more efficient in terms of communication, for example), such as using a common logo (a bus with legs is often proposed), a colour code, etc.

The class can also decide to contact the local press and invite them to attend preparatory meetings, signage and set up, in order to get a wider audience aware of their project.



▲ Example of a "Student pass" in France.



▶ Examples of street signage in Italy and Germany.



STEP 6 TEST AND LAUNCH

It is useful to plan an experimentation phase before implementing a permanent walking bus. On the one hand, this makes it possible to verify the feasibility and relevance of the action and to define the modalities of implementation with a view to sustainability. On the other hand, it gives visibility and credibility to your project.

Most often, a "test day" becomes a festive event.

BEFORE

- Choose a symbolic date for the "test day": "sustainable development week", international "I walk to school" week, etc.
- Organize a preliminary information meeting to explain your project to those who do not know it yet, to announce the date of the "test day" and to distribute the roles (parents, grandparents, associations).

DURING

- Plan to invite the local press. Prepare a press kit.



- Invite the local authorities (mayor, school director, etc.) and give them a role in the event (opening or closing speech).
- Take pictures and make videos of the event, organize fun educational activities or a welcome breakfast.

AFTER

You can consider distributing walking diplomas for the students' participation in the walking bus project, taking photos or recording some videos. This will help motivate the student to continue the walking bus!

STEP 7 PERPETUATION

The work does not stop here: setting up a walking bus is an important outcome of a climate change education project, but it takes time to become effective. It must therefore be continued over the long term and evaluated after a few months.

The walking bus will be sustainable if, day after day, the lines do not stop taking walkers.

To ensure the transition from an event-driven walking bus to a regular walking bus and to avoid a loss of momentum, several actions can be undertaken:

- Communicate the results of the project, highlighting positive developments. Give it a boost for the start of the school year and, at the end of the school year, explain that the walking bus can be restarted as soon as school starts back next year.
- Try to expand the list of “drivers” since the lack of availability of accompanying parents is the main operational obstacle. Convincing other parents to participate is key.
- In collaboration with the school’s management, provide systematic information to parents who enrol their children.
- Conduct a satisfaction survey to adapt the walking bus (lines, timetables, stops) in a flexible and collaborative way.
- Organize regular festive events or challenges, for example as part of the international “Walk to school” program.

Finally, the sustainability of the project requires a gradual transition to a more institutional project responsibility: from the classroom to the school, then from the school to the municipality.