

Debate: what is the most effective way of making sure your city has cleaner air?

Notes for teachers

The aim of the debate is to:

- Help students realise that a multitude of approaches would be most effective to make sure their city has cleaner air
- Recognise that whilst they might not be able to implement all the actions, they *can* change their own behaviours, they *can* influence others and they *can* gain support from decision makers to create a city with cleaner air
- Help young people feel empowered to be agents of change.

Advance preparation: You will need to print and cut up the cards below in advance.

Scenario:

Students will be given information about a real-life example of an action taken to improve air quality in a city, together with the consequences of the action. They will read their card, identify what type of action it is from the table below (also on ppt), and debate with the class:

- What is the most effective way of making sure your city has cleaner air?
- Which action(s) will you prioritise?

A summary of the actions are:

1. Changing road infrastructure to accommodate more cycling/pedestrian routes (Milan plan for 35km of streets into cycle/walking routes post-COVID)
2. Congestion charge – Singapore, Stockholm
3. Subsidising bike purchases – Luxembourg - 50 % of the cost of the vehicle excluding VAT, without exceeding EUR 600
4. Restrict private motor vehicles during periods of high pollution (Mexico City 1989)
5. Low-emission public transport (BRT corridors in Curitiba)
6. Start or join a campaign to act against air pollution (e.g. Clean Air Day every year in the US)
7. Impose air quality monitoring programmes (e.g. Beijing)
8. Car sharing and severely restricting parking - Vauban, Freiburg
9. Park and ride schemes (e.g. Bristol)
10. Mobility management (San Francisco – SF Park, smart parking initiatives reducing cruising)

The types of action:

<p>Legislation (laws) and advice, e.g.:</p> <ul style="list-style-type: none"> - Government - United Nations 	<p>Financial incentives and penalties, e.g.:</p> <ul style="list-style-type: none"> - Charges to travel on certain roads (penalties) - Fines for businesses who are high polluters (penalties) - Giving people money towards more sustainable transport such as bicycles (incentives) 	<p>Changes to infrastructure, e.g.:</p> <ul style="list-style-type: none"> - Cycle lanes - Better ventilation systems in buildings - Improving public transport - Digital solutions to help people travel more sustainably - Schools and businesses making it easy and safe for people to travel sustainably (e.g. bike parks) - Schools working with the council to have school streets
<p>Innovations in transport, e.g.:</p> <ul style="list-style-type: none"> - Electric and low emission vehicles - New alternative low polluting transport systems 	<p>Behavior change, e.g.:</p> <ul style="list-style-type: none"> - Walking, cycling, scooting to school or work - Choosing chemical and fragrance-free cleaning and personal care products - Opening windows, especially when cooking and cleaning 	<p>Campaigning, e.g.:</p> <ul style="list-style-type: none"> - Raising awareness with others - Signing a petition - Asking leaders in schools, businesses and the local community to come together to help tackle air pollution - Calling on the organizations like the UN to make changes that will benefit all



Action #1:

Change road infrastructure to make it easier to walk and cycle.

Description:

At the beginning of the COVID-19 pandemic, the city of Milan in Italy experienced a reduction in motor traffic congestion by 30-75%. To try to maintain this reduced level of vehicles on the road, the city has set out a plan to reallocate 35km (23 miles) of street space from cars to cycling and walking. This will be done by expanding pavements and introducing cycle lanes, reducing the space originally being used by cars.

Outcome:

This has been introduced for a trial period, with the hopes that it will be made a permanent fixture.

Action #2:

Introduce a 'congestion charge': charge drivers for using roads in congested areas.

Description:

In Singapore, the Area Licensing Scheme was introduced in 1975 to charge drivers entering the city's central business district during peak times. Cars with more than three people inside were exempt from paying any fees, therefore encouraging car sharing. Since then, the system has become more sophisticated: drivers pass through Electronic Road Pricing tolls, paying for every time that they enter the restricted area by car.

Outcome:

In the first year after the introduction of the Electronic Road Pricing tolls, number of cars reduced by 15%.

Action #3:


Subsidise the cost of buying a bike – make buying bikes cheaper.

Description:

In Luxembourg, they have introduced a scheme that reduces the cost of a bike by 50% up to the cost of 600 EUR. This encourages people to buy a bike as it makes it a very cheap option for transport.

Outcome:

The scheme has been very successful – over 7,000 bicycles have been purchased since its launch in March 2019.



Action #4:

Ban private cars from entering the city during periods of high pollution levels.

Description:

In 1989, Mexico City cut the number of cars on roads by 20% from Monday to Friday, depending on their license plates.

Outcome:

This immediately helped lower pollutants. However, the pollution has since returned.

Action #5:

Introduce more efficient public transport to encourage people to use it instead of driving.

Description:

In the city of Curitiba, Brazil, a Bus Rapid Transport system was introduced. Everyone in the city lives no further than 400m from a bus stop and the buses are very frequent.

Outcome:

80% of the population of Curitiba use this public transport system. This system has inspired other cities around the world to adopt a similar system.

Action #6:

Start or join a campaign which takes positive action against air pollution.

Description:

An example of a campaign is Clean Air Day which happens yearly in the US. It brings people together across California - from schools, businesses, communities and the health sector and encourages a day of action on air quality where people try something different - this could be anything from choosing to switch to chemical/fragrance free products, packing a lunch to take to work, planting a tree and going car-free for a day.

Outcome:

These events help raise awareness about the causes and impacts of air pollution. On Clean Air Day 2020, 1.6 million people took at least 3.1 million actions to clean the air in California. Due to COVID, many events were hosted virtually, further reducing air pollution for the day. Media coverage included live interviews and newspaper articles, and participants generated 6 million social media impression, sharing about following through on their clean air pledge (more info here: www.cleanairday.org)

Action #7:

Monitor air quality across the city to measure changes and guide policies.

Description:

In 2013, Beijing began taking measures to improve its air quality. As well as controlling sources of pollution emissions, such as coal burners and domestic fuel, it also introduced a thorough monitoring program to better understand the levels of air pollution in the city.

Outcome:

Over the last 20 years, Beijing has significantly improved its air quality by as much as 35%.

Action #8:

Introduce a car sharing scheme and restrict parking spots.

Description:

The Vauban District of Freiburg in southern Germany was designed as a model of environmental planning and eco-friendly living. Part of this involved making residential streets free of parking, with cars parked in a community lot on the edge of the district. Car users must pay a one-off cost of €17,000 plus a monthly service fee. A citywide car-sharing scheme has also been created and has been proven to be popular.

Outcome:

When moving into Vauban, 57% of the households that previously owned a car decided to let their car go. 70% of the inhabitants live without a car in Vauban.

Action #9:

Introduce a park and ride scheme.

Description:

These schemes have been adopted in various cities across the US and the UK. In Bath and Bristol, a park and ride scheme has been introduced. This involves people driving to the edge of the city and parking their cars, before taking a bus into the city centre.

Outcome:

Depending on the park and ride scheme, car parking may be free. In Bristol, it has helped reduce congestion in the city centre. They have been proven to quicken journey times during rush hour. There is also strong support to continue to develop further park and ride facilities.

Similar programs have been adopted by the California Department of Transportation:

<https://dot.ca.gov/caltrans-near-me/district-11/programs/district-11-planning-local-assistance/district-11-park-ride-program>

Action #10:

Make finding a parking space easier to reduce the number of cars cruising on the road looking for a spot.

Description:

In San Francisco, USA, they introduced 'SF Park', a software that helps users find parking spaces in the city.

Outcome:

This resulted in a 50% reduction in cars cruising looking for parking, reducing air pollution created by cruising cars.

