Transport and the climate emergency

What is the problem?

- Emissions from transport are one of the largest sources of greenhouse gases in Lambeth.

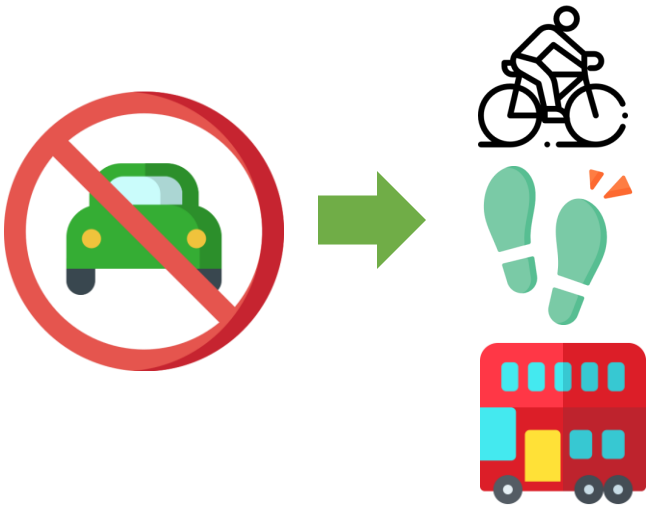
- Transport emissions also create local air pollution which affects our health, causes premature deaths and significant healthcare costs.

- The majority of Lambeth households don't have access to a car but are impacted by the air quality and carbon emissions of road transport.

What can be done:

- Switch trips from polluting modes to lower or zero-emission ways of getting around.
- Make Lambeth a safer and more attractive borough to walk, scoot, wheel or cycle in.
- Make public transport the default choice for longer journeys where possible and electric vehicles for essential car journeys.
- Ensure the impacts of different transport types on the climate emergency are clear when people choose how to move around the borough.

Make greener transport the easiest way of getting around



What? All roads in Lambeth could be made safer to encourage more people to choose walking, cycling, scooting or wheeling, particularly for shorter journeys
How? Councils and Transport for London can prioritise the wider rollout of safe, protected cycle lanes, Low Traffic Neighbourhoods and pedestrianised high streets, more pedestrian crossings and reduced road danger all mean that people will feel safer to choose active travel and reducing the use of more polluting alternatives, particularly for shorter trips.
Who? Councils, Transport for London, individuals, businesses, organisations,

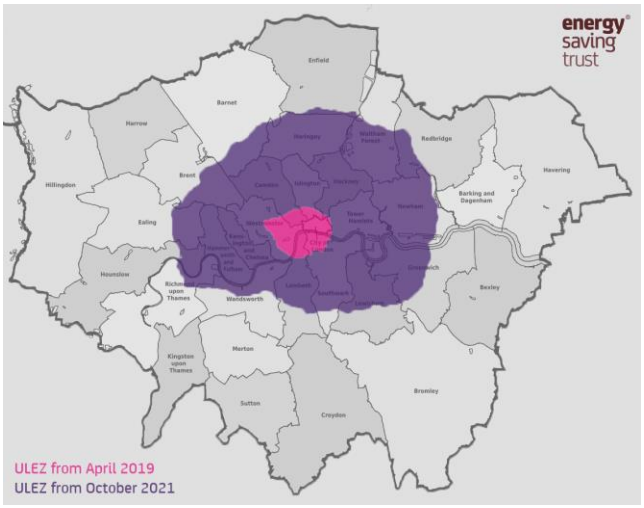
Benefits	Considerations
• Better air quality • Lambeth residents and workers enabled to be more active, with many health benefits • More 'people friendly' streets which would: ➢ Cleaner air ➢ Safer streets ➢ More community space ➢ Healthier high streets	• Road space would need to be taken from other uses • Wider pavements would be needed in some areas • Lowering the cost of public transport might be required to increase uptake • Some (e.g. because of disability) rely on private vehicles to get around • Some businesses may worry that reduced car access will damage trade

Provide more shared transport options

What? Privately owning or leasing a vehicle is an inefficient use of resources. On average private vehicles spend over 90% of their time parked. The majority in London are stored on-street using street space that could provide safe, accessible space for sustainable forms of transport such as walking, cycling and buses or new public space. If you own or lease a car outright you're more likely to use it.
How? Introduce more types of shared transport options. Shared transport with 'pay as you use' business models mean that users pay each time they use the vehicle. This cost can reduce how often people use cars only to when they are necessary and can lead to less car trips being made overall.
Who? Individuals, councils,

Benefits	Considerations
• More street space for other types of transport (or for green space) • Less congestion due to fewer cars on the roads • Increased opportunity for people to meet, play and socialise in the street • Better air quality	• Might be less cost efficient, less convenient and less practical for some • Some (e.g. disabled people) rely on private vehicles to get around and may be disproportionately impacted

Road user charging



What? The congestion charge and the Ultra Low Emission Zone are forms of road user charging. They require drivers to pay an additional charge if driving through certain areas where congestion or air quality is a concern, and could be used to target the vehicles with the greatest environmental impact including greenhouse gas emissions.
How? More significant forms of road user charging may need to be considered to discourage car use both within London and in the wider region. This could include methods such as a carbon allowance that are tradeable or road use charging based on mileage by zone.

Who? TfL, councils, individuals, businesses

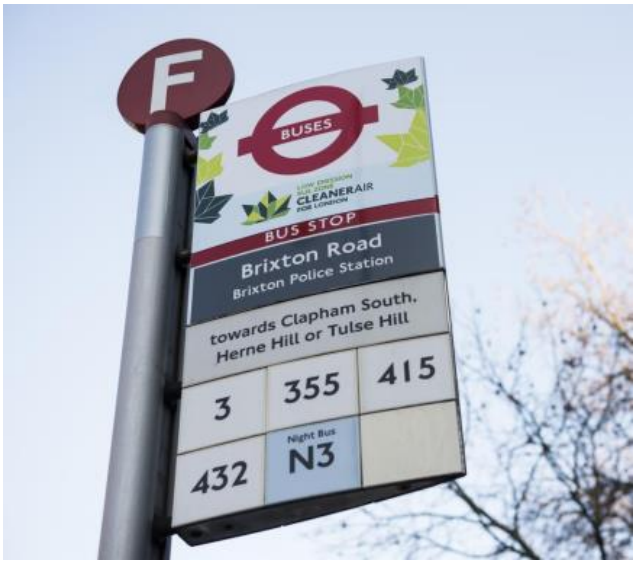
Benefits	Considerations
• Less and cleaner vehicles on Lambeth roads • Less congestion • Safer streets • Increased opportunity for social and community uses • Better air quality	• Some private car use may be essential (e.g.) and charging may disproportionately impact these users • Not all car users will be able to afford to change their vehicles in time

Promoting low carbon travel behaviour

What? We can all try and change how we travel, to be more mindful of the environment. This could be through personal choices to be more active, or promoted by initiatives such as school travel plans, supporting low carbon travel options like electric bikes, or simply through making people more aware of their own travel carbon footprint.
How? Increase awareness of the impact of travel on the environment and make it easier for residents and businesses to switch to low carbon modes of transports, such as walking, cycling or public transport.
Who? General public, businesses, organisations, councils, TfL

Benefits	Considerations
• Better air quality • Lambeth residents and workers enabled to be more active, which benefits physical and mental health • More 'people friendly' streets which would: ➢ Be nicer for residents ➢ Be safer ➢ Support higher spend in local businesses	• More cycle lanes would be needed • Wider pavements would be needed in some areas • Lowering the cost of public transport might be required to increase uptake • Some rely on private vehicles to get around (e.g. some disabled people) • Some businesses may worry that reduced car access will damage trade

Low emission bus zones



What? Low Emission Bus Zones use buses with top-of-the-range engines and exhaust systems that meet or exceed the highest emissions standards. The zones have been prioritised in the worst air quality hotspots outside central London where buses contribute significantly to road transport emissions.
How? Increase funding for more electric public transport, make it cheaper to manufacture, increase electricity supply
Who? UK Government, TfL, London councils, businesses, manufacturers, public transport users

Benefits	Considerations
• Lower maintenance costs for transport companies • Quieter roads • Lower emissions so lower environmental impact and better air quality for residents	• Running costs are currently higher than for diesel buses • Could be more expensive for passengers • Currently expensive to charge buses for long journeys • Reliant on installation of enough electric vehicle charging stations, which are expensive and require additional space • Requires more electricity to be generated

Electrifying public transport

What? Ensure more public transport in the borough is electric, rather than running on diesel and petrol. Zero-emissions buses help reduce carbon emissions and improve air quality. Journeys on an electric bus are also quieter, which helps reduce noise pollution.
How? Increase funding for electric public transport, make it cheaper to manufacture, increase electricity supply
Who? UK Government, TfL, London councils, businesses, manufacturers, public transport users

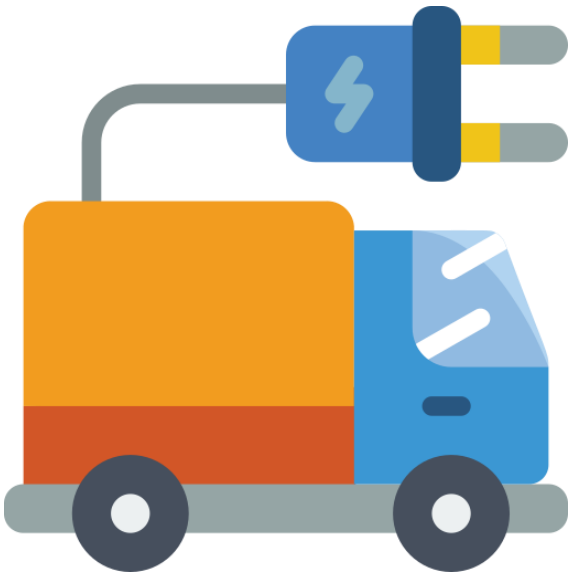
Benefits	Considerations
• Lower maintenance costs for transport companies • Quieter roads • Lower emissions so lower environmental impact and better air quality for residents	• Running costs are currently higher than for diesel buses • Could be more expensive for passengers • Currently expensive to charge buses for long journeys • Reliant on installation of enough electric vehicle charging stations, which are expensive and require additional space • Requires more electricity to be generated

Reducing number of commercial vehicles

What? Measures could be introduced to reduce emissions coming from commercial vehicles transporting goods in Lambeth, we could look at solutions on how to reduce the number of commercial vehicles.
How? By reducing how much we consume goods produced outside of the borough, measures to make the climate impact reflect the cost of vehicle deliveries to consumers, buying more locally produced products, switching to walking/biking deliveries where possible.
Who? Central government, local councils, local business owners, national businesses, residents, organisations, action groups

Benefits	Considerations
• More street space for other types of transport (or for green space) • Less congestion due to fewer cars on the roads • Increased opportunity for people to meet, play and socialise in the street • Better air quality	• Might be less cost efficient, less convenient and less practical for some businesses and for consumers • May require cooperation across a wide range of services to reach scale

Electrifying commercial and private vehicles



What? More electric vehicle charging points could be installed across Lambeth. These would create opportunities for more widespread use of privately owned and commercial electric vehicles such as taxis and vans to be charged. Incentives could be funded to encourage wider uptake of electric vehicles.
How? There are limited grants and tax incentives available to help buy electric vehicles
Who? Businesses, authorities, individuals

Benefits	Considerations
• Carbon reductions if electricity is generated from renewable sources • No tailpipe emissions mean better air quality • Electric commercial vehicles will be able to enter the Ultra-Low Emission Zone • Reduced noise pollution • Lower running costs than petrol/diesel	• Requires high density of charging points for mass rollout • Does not create safer roads or reduce congestion • Electric car manufacturing process generates more carbon emissions than a traditional petrol car • Mining battery materials has negative environmental impacts • Increased electricity demand • Incentives needed to encourage more commercial uses

The energy we use and the buildings we live and work in

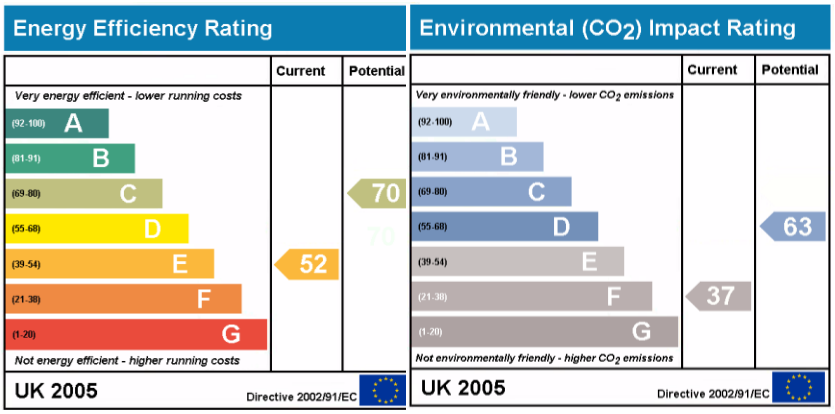
Why it is an issue:

- In the UK, as globally, the primary source of greenhouse gas emissions is the energy used to power our homes and work places.
- Buildings which require a lot of energy to heat or cool them means more carbon emissions, and more money on your energy bill.
- Health issues caused by unhealthy housing costs the NHS approximately £613 million per year.

What can be done:

- Introduce and enforce regulations that ensure new and existing buildings meet the highest possible environmental standards
- Increase level of ambition of housing retrofit standards
- Use sources of renewable energy, like solar panels, to heat our homes and commercial buildings.
- Transition from gas to more electricity, through the use of heat pumps instead of boilers.
- Adapting buildings to changing weather conditions.

Retrofit existing buildings



What? Retrofitting means that you modify an existing building to improve its energy efficiency. For example, insulating buildings through cavity wall insulation or double glazing reduces the amount of energy required to heat or cool them.
How? By using grants and funding available, by introducing apprenticeship and job schemes for retrofitting buildings
Who? Residents, UK government, landlords, businesses, organisations, the council

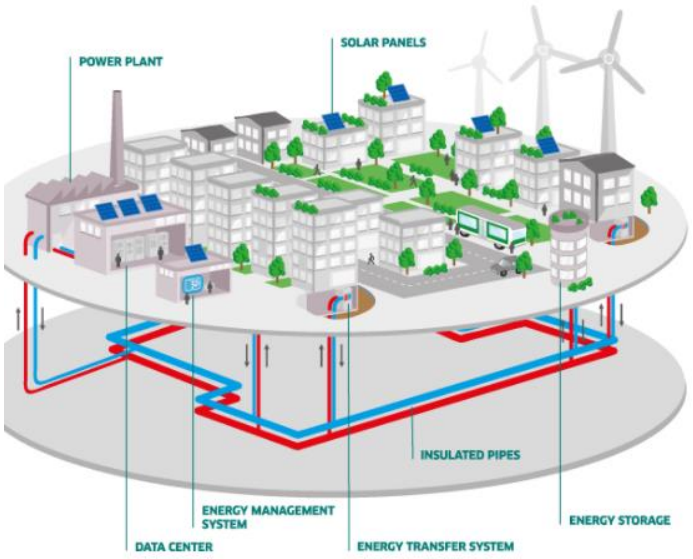
Benefits	Considerations
• Can reduce electricity demand by 20-60% • Reduced heating bills for residents • Improved health of residents – for example, less damp houses can reduce childhood asthma	• Challenging to achieve 60% reduction in demand by 2030 in council's buildings • Multiple types of insulation may be needed to prevent heat loss • The right financial support is often insufficient and difficult to obtain • Much of Lambeth's housing is old, which is expensive and often complicated to retrofit • A lot of properties in Lambeth are rented by private landlords and it is not yet clear who should pay

Adopt ambitious environmental building regulations

What? Development in the borough could be guided by even more ambitious regulations that ensure buildings meet the highest possible environmental standards
How? This requires new policy being adopted, or produce guidance notes asking businesses to adhere to increased standards.
Who? Local and national government, manufacturers, construction companies

Benefits	Considerations
• Can reduce electricity demand by 20-60% • Reduced heating bills for residents • Improved health of residents – for example, less damp houses can reduce childhood asthma	• It is costly – who should meet those costs? • It can be time consuming for policy to go through government legislation processes

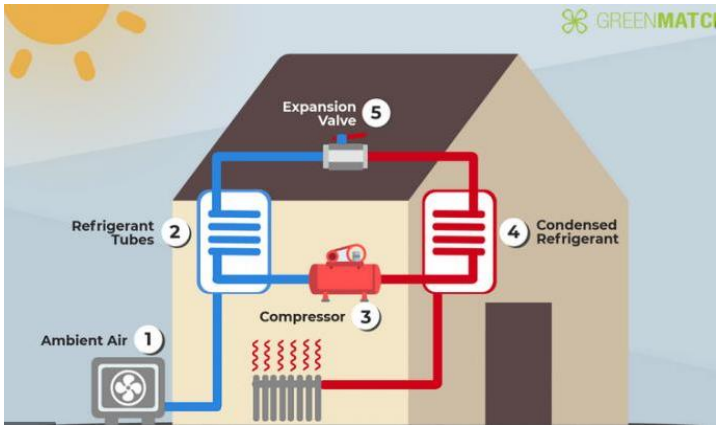
District heating



What? District heating removes the need for individual boilers and electric heaters in homes and businesses.
How? It is a centralised heating system, which can be powered by renewable energy sources, and delivers hot water to homes. The hot water is also used for central heating.
Who? Property owners, energy companies, local and national government, businesses

Benefits	Considerations
• A more efficient way of heating homes and businesses • Uses heat already being produced by buildings which would otherwise be wasted • UK government is funding £320m to encourage growth of district heating • Can reduce heating costs by up to 30%	• Requires lots of land space • Requires conversations between multiple players • Complex logistics • Long time to develop and set-up • Industry currently unregulated • Customers cannot switch suppliers

Increase uptake of heat pumps



What? Heat pumps run on renewable energy like wind and geothermal instead of fossil fuels. They are used to warm - and sometimes cool - buildings.
How? Heat pumps can be installed in individual properties. With an expected 19 million heat pump installations in new homes by 2050, heat pumps have an increasingly important role in reducing the UK's carbon emissions.
Who? Home owners, businesses, residents, national and local government, energy companies

Benefits	Considerations
• Heat pumps have a long life span (50+ years) • They provide warm homes and hot water for residents • Long term running costs are fairly low • Schemes and grants are available • They require little maintenance	• High upfront costs • Heat pumps are not entirely carbon neutral, as they rely on electricity to operate • Installing heat pumps may require significant work to homes and buildings

Switching to renewable energy

What? A lot of emissions come from the way we produce energy from fossil fuels (for example burning coal or natural gas). Switching to renewable energy would mean your energy is generated from a green energy source, for example the sun or the wind.

How? Property owners, business owners and other organisations can themselves choose to generate their own renewable energy from, for example, installing solar panels on their roofs. A smaller action could be to switch to a greener energy supplier, making sure your energy is largely generated by solar and wind power.

Who? Local and national authorities, businesses, businesses providing / installing renewable energy, individuals

Benefits	Considerations
• Residents, organisations and businesses with their own renewable energy sources, like rooftop solar panels, can sell back the energy they don't use to their supplier, saving money on bills • Could increase more local job opportunities	• Could be a high up front cost to install your own renewable energy sources • Efficiency of renewable energy is reliant on the weather

Better use of smart meters

What? Smart meters can help residents keep track of their energy consumption and costs, which in turn can encourage people to use less energy.
How? More provision and uptake of smart meters among members of the public but also businesses, together with more information on how to use smart meters consistently.
Who? Energy companies, residents, businesses

Benefits	Considerations
• Most energy suppliers provide these for free • It makes it easy to track how much energy you use • Helps people save money on energy bills • Power cuts are resolved faster	• Reliant on WiFi / mobile signal • Rates may be higher at peak times • Not available to some customers on time of use tariffs and prepayment • Data may be used for marketing purposes • Can't be an alternative to retrofit/boiler replacement – so that needs to happen too.

Sustainable Drainage

What? Sustainable Drainage Systems (SuDS) are an assortment of measures used across the UK and Lambeth to manage rain from hard surfaces such as roofs, drives and roads so they mimic the natural water cycle.
How? Sustainable drainage systems prevent our sewers and rivers from being overloaded and causing flooding. They also create biodiverse planting and green spaces for people to use, as well as improved water quality. They are a statutory requirement for all new developments.

Benefits	Considerations
• Reduces flood risk • Creates high value recreational or public spaces • Improves wildlife habitats and counteracts biodiversity loss • Can form a physical barrier to poor quality air. • Below-ground tanks can be used in locations with restricted space	• High upfront costs, and long term maintenance liabilities • Restrictions on the location, type and size of sustainable drainage can be implemented to reduce risk of excess water nearby

Building Adaptation: Heat, storms and flooding

What? All over the world, councils, constructors and businesses are working on buildings to make them less vulnerable to heatwaves, droughts, storms and flooding. This includes, insulation, mechanical ventilation, replacing hard surfaces with trees and planting, and rain water harvesting.
How? To prevent overheating in buildings, we have to think about their location, external heat, and internal heat gains in the home. Property level measures like creating raised thresholds, air brick covers, pumps and non-return valves systems, and installing flood resistant doors and windows can help prevent flooding.

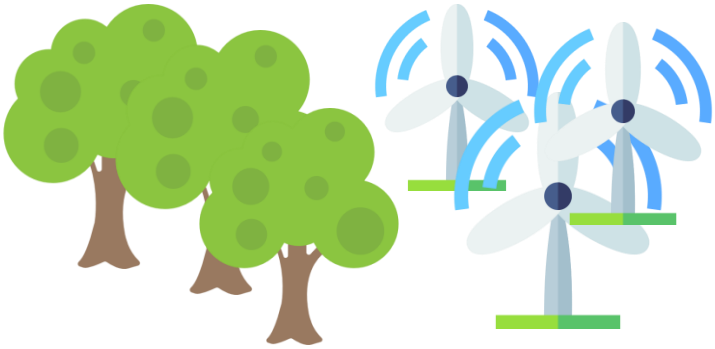
Benefits	Considerations
• Some changes can be quick to implement • Constructors, councils and businesses can specify these requirements in new buildings • Can be in the form of green spaces (trees and planting to create shade) • Government schemes available to help residents with some adaptations.	• Can require adaptations to both the buildings and local neighbourhoods to make a difference • Also requires us to behave differently in how we use buildings. • Requires skilled and knowledgeable homeowners – or paid professionals – to carry out adaptations

Green spaces

What? More green spaces on and around our buildings can help make space for biodiversity and natural life. These can be green roofs, green walls and more trees and planted spaces around buildings at ground level.
How? For example, they can be put in as diverse gardens on top of buildings, on the side of buildings or around buildings. They help provide habitats for wildlife that can be especially important in urban areas, and also contribute to better air quality and reduce the risk of buildings overheating.

Benefits	Considerations
• Creates new and resilient green spaces • Supports wildlife • Mimics natural drainage • Improves local air quality • Reduces the urban heat island effect • Improves buildings' energy efficiency and reduces the need for air conditioning • They can be installed on existing flat roofs • They can be used to harvest rain water • They help to insulate buildings reducing heat loss	• Green roofs are more expensive than traditional roofs • They are heavier and require more structural support • They require ongoing maintenance by building owners • Trees in dense urban locations can require costly infrastructure to ensure their longevity and prevent legacy issues from roots. • ~~They have to compete for roof space with solar panels, but can exist~~

Offsetting programmes



What? Offsetting is something that individuals, organisations and national governments can do – it means investing in programmes that take carbon dioxide out of the atmosphere in order to 'off-set' emissions you have created.
How? Paying for initiatives to absorb carbon dioxide to compensate for emissions that are being generated. For example, planting trees to compensate for the carbon dioxide produced by taking a flight.
Who? Individuals, businesses, councils, government

Benefits	Considerations
• Can help to get to net zero emissions without having to minimise all of our emissions • Some offsetting initiatives (such as offsetting gas and electricity use at home) can be low cost • Some products are available with carbon offsetting included in the price, making it easier to offset the carbon emissions generated e.g. cars include offsetting for the first few thousand miles of use	• Offsetting programmes can be unreliable and may not have the positive impact they are meant to • Offsetting isn't a substitute for cutting carbon emissions directly – the challenge is too great. • It's often not possible to offset emissions where they are generated. For instance, cities have no where near enough space to plant the trees needed for significant off-setting.

Changing consumerism and waste

Why is it an issue:

- Locally, responsible resource management can save 10-15 million tonnes of CO2 per year, and actually help mitigate climate change.
- Emissions from imported goods are one of the biggest sources of emissions in the UK. Where we buy things and how much we buy affects the amount of emissions we make.

What can be done:

- To minimise waste and emissions from consumption means working with the council, businesses and waste management services to promote waste reduction, reuse, and recycling (more composting and recycling, less single use plastic bags/packaging)

- It also means that we need to start buying responsibly, swapping and sharing more things, repairing used clothes, recycling and reducing consumption of items such as plastic. This saves everyone water, energy, and money.

- It even can save 10-15 million tonnes of CO2 per year (which is like taking 3 million cars off the road)

Repair instead of waste

What: Instead of throwing broken things away, we can look at how to reduce waste by repairing and remaking broken items.
How: In Lambeth, local initiatives such as Remakery Brixton, act as meeting places with tools to repair items, while helping reduce personal waste and consumption.
Who: Local groups, individuals, businesses

Benefits	Considerations
• Carbon reductions as the life of the item is extended • Community benefits through increasing knowledge capital and skills • Other environmental benefits e.g. waste, pollution, as new items do not need to be created	• Community Repair workshops will need a space • Unless repairing yourself, it can be more expensive to repair than to replace.

Awareness of consumption

What: Where we buy things, what we buy and how much we buy affects the amount of emissions we make. For example, emissions from making and transporting goods and products.
How: We can become more aware of what we buy, how much we buy, and from where. For example, buying more locally sourced food products or avoiding fast-fashion and shopping second-hand can help reduce emissions. Many businesses are taking action to reduce their own emissions from recycling and reusing more materials in production. The Library of Things is one example of an initiative making it easier to borrow things instead of buying them new.
Who: Businesses, individuals

Benefits	Considerations
• Studies have shown that buying less things will lead to more happiness and less depression and anxiety • Less consumerism will ultimately lead to decreased emissions • If shopping more locally, local businesses will thrive • Creation of new green industries and jobs	• Hard to account for in terms of carbon emissions • Buying local is sometimes more expensive • There is no concise message about future consumerism – for example, should we stick to consuming locally, or only buying high quality products that are less likely to break?

Waste collection

What: Sorting and recycling means that less household waste goes to landfill. Recycling also means that the energy and resources used to create the material in the first place, such as glass, are not wasted.
How: Increased awareness and information around what to recycle and how to recycle.
Who: Businesses, individuals, local authorities, waste management

Benefits	Considerations
• Less household waste goes to landfill which means less carbon emissions are produced. • More materials can be reused	• "Reduce, Reuse, Recycle" is a hierarchy: Recycling is important but **reducing** overall waste and increasing **reuse** will have the biggest impact on emissions