



What is GMPTE?

TASK
SHEET
1

The Greater Manchester Passenger Transport Executive, called **GMPTE** for short, is a public transport organisation which has the job of moving people around its local area. **GMPTE** serves the region shown in **Map A**. **GMPTE** co-ordinates public transport for those who live in this part

of the north-west of England. It is the job of **GMPTE** to plan and organise most of these travel services for local people. There are 10 districts making up the boundary area covered by the **GMPTE**. This is your local area.

Map A



What does **GMPTE** do?

Diagram B

- GMPTE** runs a 12 hour a day information line to help passengers.
- GMPTE** produces thousands of timetables a year.
- GMPTE** helps to fund local bus and train services.
- GMPTE** provides the Ring and Ride door-to-door service for people with mobility difficulties.
- GMPTE** pays for children and elderly people to travel cheaply on public transport.
- GMPTE** provides bus shelters and stations to make travel more comfortable.
- GMPTE** owns Metrolink, the environmentally friendly tram service.
- GMPTE** pays for and plans some bus services.

Things to do

1. Copy **Map A**, mark with a dot where your school is and shade in your district.
2. Look at **Diagram B**, highlight key words and make a spider diagram of the services provided by **GMPTE**.
3. See if you can find **GMPTE** service details on ITV Teletext page 194 or on the Internet <http://www.gmpte.gov.uk>
4. Collect tickets, timetables or leaflets about public transport from the **GMPTE** Travelshop in your local bus station and make a classroom display.



Why are public transport services vital to local people?

Being able to travel is extremely important to all of us. We travel to carry out our day to day activities. People make journeys using public transport to go to all sorts of places, some of them are shown in **Diagram A**. In our area there are different types of public transport services available to use and this makes travel easier. **GMPTE** has connected up many bus, train and tram transport systems. Where transport systems are linked together they are called integrated. An integrated transport system allows passengers to make changes along their route by switching from one type of transport to another. Attempts have been made to link timetables of the different services so connections are made on time. A great number of local people depend on public transport as it is the only form of transport they have access to. In **Diagram B** are some of the reasons people have to explain why public transport is so important to them.



Diagram B

- Elderly people can get reduced travel fares.
- Some tickets can be used on different services.
- Car parks are found next to many stations.
- There are areas of low car ownership.
- Many people live a long way from their work place.
- The Metrolink tram system is popular with local people.
- Many older people do not drive.
- Some people live in the countryside.
- There are areas of high unemployment.
- Many housing estates have been built on the outskirts of towns.
- Many children go to school by public transport.
- Some disabled people need some support to travel.

Things to do

- List the 6 most popular journeys people make as shown in **Diagram A**.
- Explain what the term integrated transport system means.

- Using the information in **Diagram B**, complete **Table C**.

Public transport is important	
GMPTE services	Local Area Facts

- Use the table to explain why public transport is important.



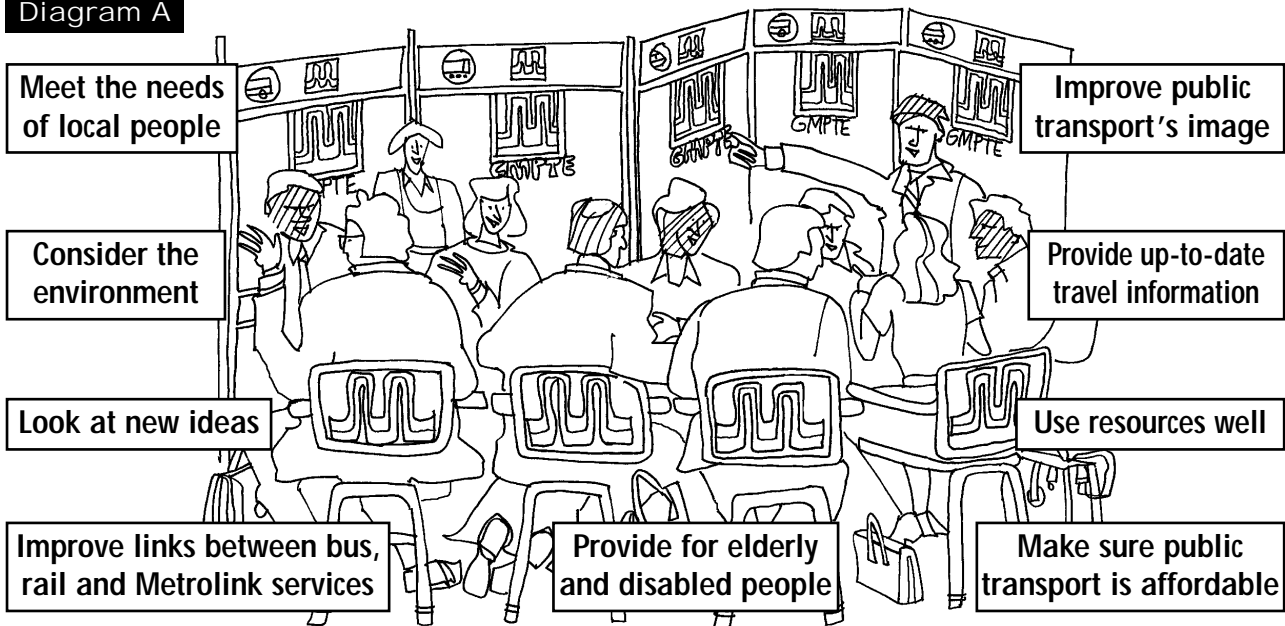
How are public transport services organised in Greater Manchester?

TASK SHEET 3

GMPTE co-ordinates and promotes high quality public transport facilities for people living in Greater Manchester, with guidance from a body of local Councillors, called the Passenger Transport Authority. These Councillors are appointed by each of the 10 districts of Greater Manchester. So that services can run smoothly, changes and improvements are being planned for, continually. The Authority is always working to a 5 year plan. It is

important that the Authority meets the needs of its passengers. Local people are asked for their views on how well the services are running and how they could be improved. Transport Forums are held every 3 months, in each of the 10 districts, so that residents can have their say. Finding out what people want and keeping them involved is vital to encourage continued use of public transport and a successful future.

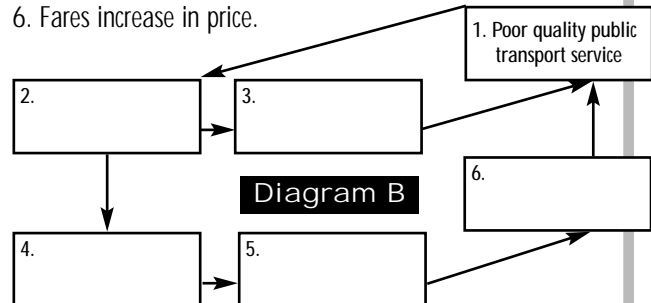
Diagram A



Things to do

- Who represents local residents in the Passenger Transport Authority?
- What role does the Authority have?
- Make a list of the regular items in the **GMPTA** Five Year Plan shown in **Diagram A**. Put them in order of importance to you
- A poor quality public transport system could have a disastrous effect on the future of travel. Look at the statements in **Diagram B** and plot them on to your own copy of the flow chart which shows what would happen.

- Poor quality public transport service.
- The car gets used even more.
- Traffic congestion worsens.
- Fewer bus, tram and rail services.
- Cut-backs on services.
- Fares increase in price.



- Draw **Diagram B** and re-write the statements to show what happens when there is a high quality public transport service available to local people.



What makes travelling by car so popular in Greater Manchester?

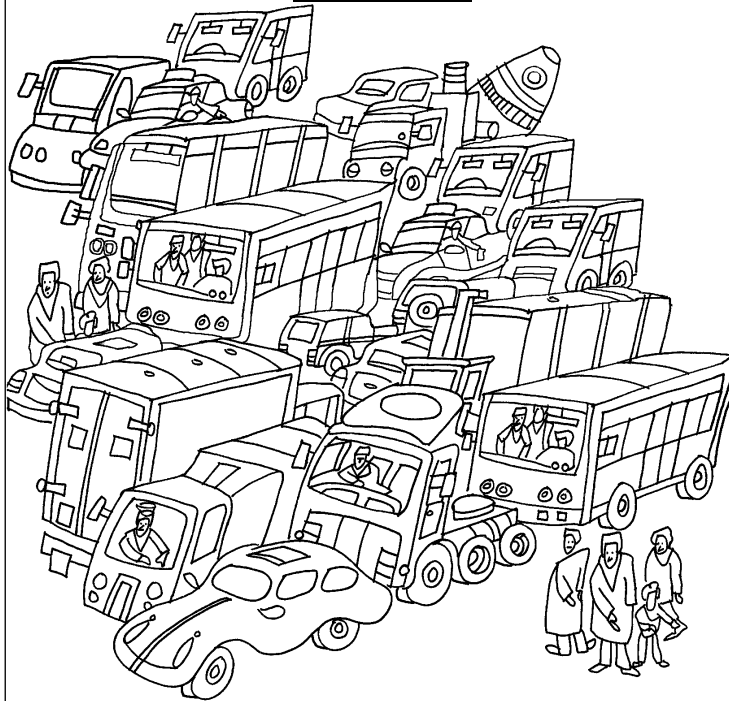
By the year 2025, it is estimated that the number of cars on the road will have doubled. There are already around 25 million cars in Britain today and car ownership has doubled since 1970. Today 7 out of 10 journeys are made by car. **Table A.** shows more information on how we use our roads. Travelling by road is popular because our roads reach most places and people can use their cars whenever they want to. In rural areas especially, the car is even more

important, providing a vital link to essential services in nearby towns. Public transport in rural places is limited. Areas of countryside and forest will continue to be removed in road building schemes if we don't reduce our dependence on car travel and change our travelling habits. Animals and plant life will continue to be threatened. There are both good and bad aspects of car travel. See **Diagram B.**

ADVANTAGES

1. Cars can be bought easily-credit is available.
2. Petrol is affordable and cars are becoming cheaper.
3. Cars are convenient, you can start and finish your journey when you want to.
4. Young people like to travel on their own by car.
5. Workers and shoppers like to travel to town by car.

Diagram B



DISADVANTAGES

1. Cars carry only a few passengers but buses can take up to 80 people.
2. Slow moving traffic causes more air pollution and this can be harmful to our health.
3. Hold-ups and traffic jams can cause stress and bad tempers.
4. Road traffic can be dangerous for people and wildlife.
5. Councils have to spend money on road improvement schemes to direct traffic away from our town centres.

Things to do

1. Estimate how many cars will be on our roads in 2025.
2. Use **Table A** to draw a bar graph showing how journeys are made in Britain today.
3. Look at the advantages and disadvantages of travelling by car shown in **Diagram B.** Make a list of 3 reasons why car use is popular and 3 reasons why it should be reduced.
4. Explain why our travel habits must change.

Table A

How journeys are made in Britain today

	%
Cars	65
Bus	10
Rail	6
Bike	4
Walking	13
Motor bike	2



How are public transport services planned?

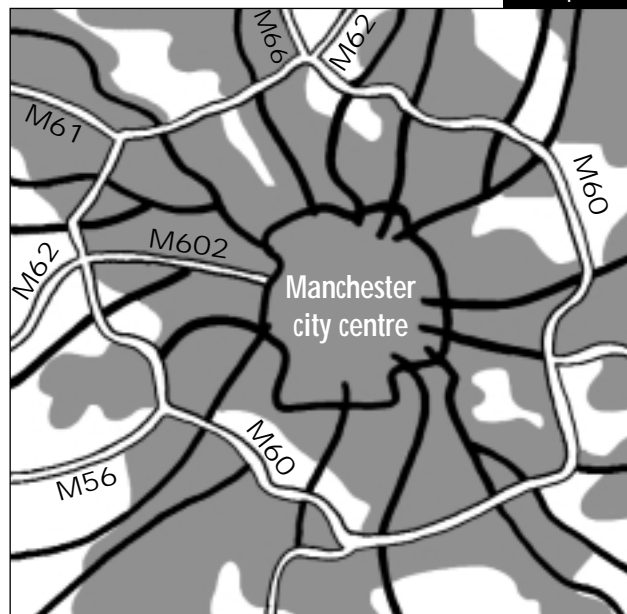
TASK SHEET 5

A settlement is the name given to where people live. There are a large number of settlements in each of the Greater Manchester districts. The number of people who live in each district is different and so is the number of cars owned by these people, see **Table A**. **GMPTE**, together with privately owned public transport organisations, need to have this information so they know where to plan and provide their transport services. Knowing where settlements are, their population size and where important local services like hospitals are, is essential to transport planning. It is clear that public transport is relied on by some people more than others in particular districts of Greater Manchester.

Another important consideration is the way public transport services connect with each other. Being on a transport route means that you will, at some time, be able to change to another route and get to where you want to go. Manchester is the dominant city within the local area. All the major roads and railway lines lead to it. Metrolink passes through it and has many stops within it. All of these transport services make this

city very accessible to all local people. From the city centre you can get to nearly all other settlements in the area. Look at **Map B**. it shows the road network radiating from the city centre to other parts of Greater Manchester.

Map B



Main roads

Built-up areas

Table A

District	Area-hectares	Population -000's	Car Ownership %
Bolton	13,973	268	71
Bury	9,914	182	76
Manchester	11,528	430	53
Oldham	14,105	220	67
Rochdale	15,957	207	66
Salford	9,723	235	61
Stockport	12,650	291	79
Tameside	10,314	221	68
Trafford	10,608	219	77
Wigan	18,818	310	74

Things to do

- 1 List some of the factors that **GMPTE** and other public transport providers have to consider when planning transport surveys.
- 2 Why is taking daily transport surveys of the numbers of passengers using particular routes important when planning services?
- 3 Look at **Table A** and sort out the districts into 3 groups based on car ownership %. Is there any connection with population size of the district?
- 4 Make a copy of **Map B** and write a few sentences to explain how people can get to other places easily from Manchester city centre.

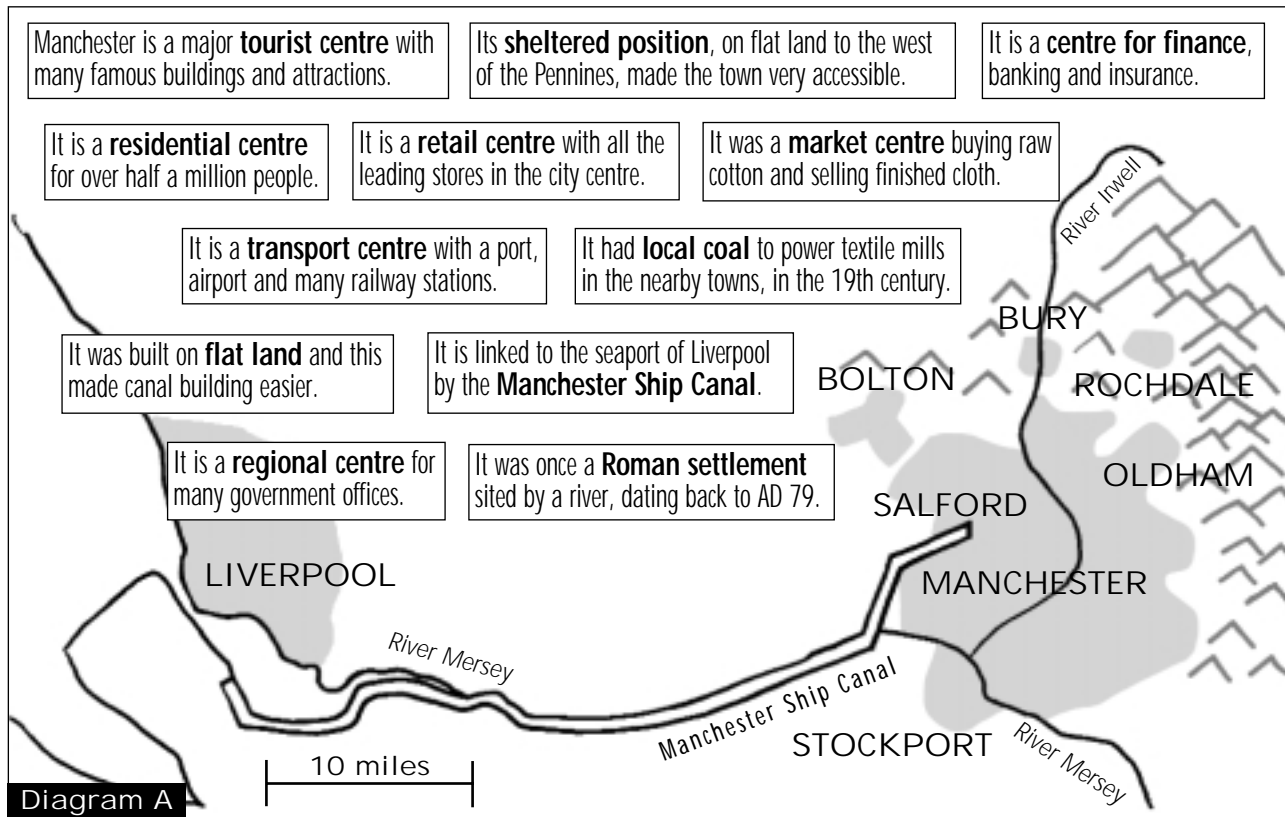


Why is Manchester a major city?

TASK SHEET 6

Manchester has not always been a city. In AD 79 the Romans had built a small settlement from which 7 Roman roads linked other places in the local region. Even 250 years ago, Manchester was a small settlement. Most people living near to Manchester worked on small farms and only came to Manchester to sell their livestock, crops or the wool they had spun in their homes. All this changed in 1750 with the start

of the Industrial Revolution. Since that date, the city has experienced 4 transport phases. The first phase came with the canals; then the railways, followed by road transport and now air routes focus on the city. In **Diagram A**, are some of the reasons to explain why Manchester has grown into the major city. The reasons are related to each other and together they explain Manchester's importance today.



Things to do

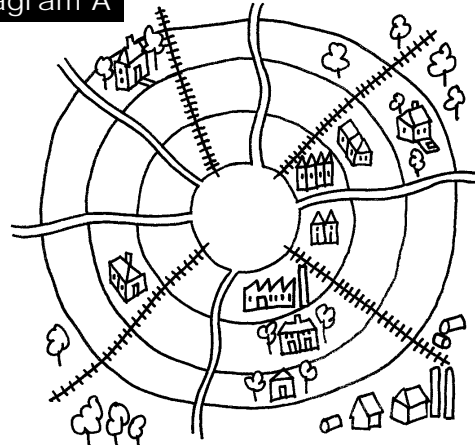
1. What were the names of the 4 transport phases that Manchester has passed through?
2. Why do you think canals were easily built between Liverpool and Manchester?
3. Make a copy of the table below and sort the reasons for the growth of Manchester shown in **Diagram A**.

Table B

The growth of Manchester Past and the Present reasons.	
PAST	PRESENT

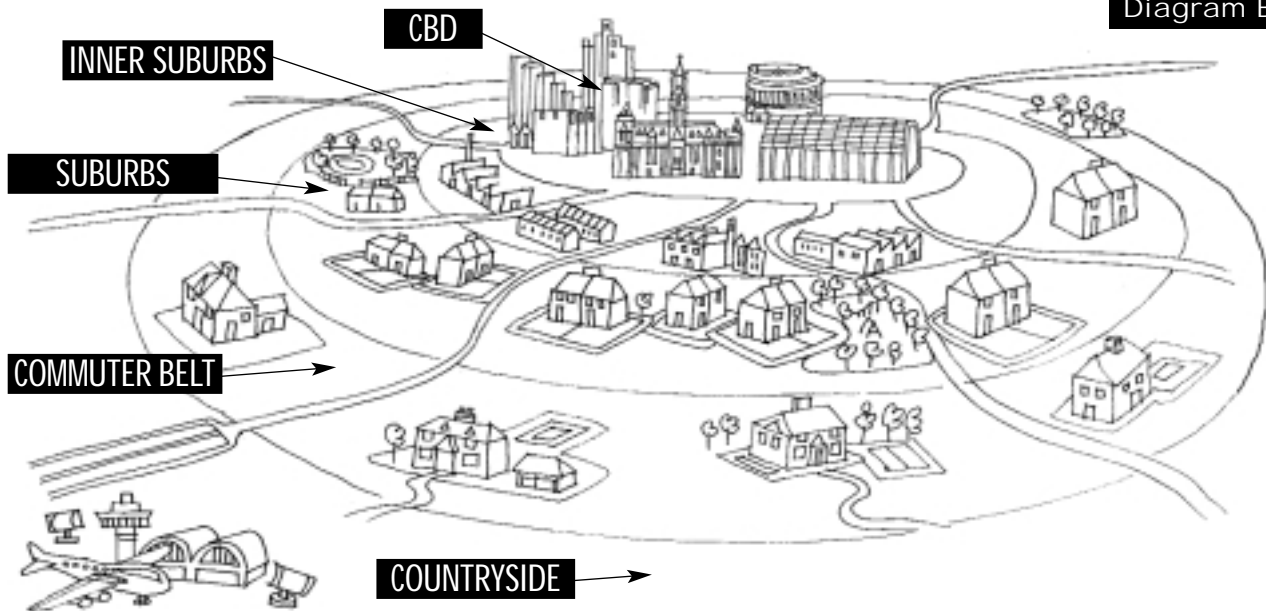
The land use pattern of a city shows the layout of the buildings and how its open space is used. It gives clues as to how the land on which the city was built, has changed over time. In Manchester, it is possible to identify different types of buildings and spaces that are grouped together to form separate areas or zones. The city centre land use zone is easy to spot, it is made up of large shops and offices. We call this zone the Central Business District or CBD. Outside the CBD, it is possible to simplify the land use pattern of Manchester as a series of rings that go out to the suburbs where most people live. It is possible to go and see what is in each zone because roads and public transport systems are part of the city land use map. A city like Manchester is always changing its land use pattern.

Diagram A



- A CBD - Central Business District
- B INNER SUBURBS - Old and new houses, flats and factories
- C SUBURBS - mostly houses with gardens
- D COMMUTER BELT- large houses, villages and railway stations.
- E COUNTRYSIDE - open fields, woods and farmland.

Diagram B



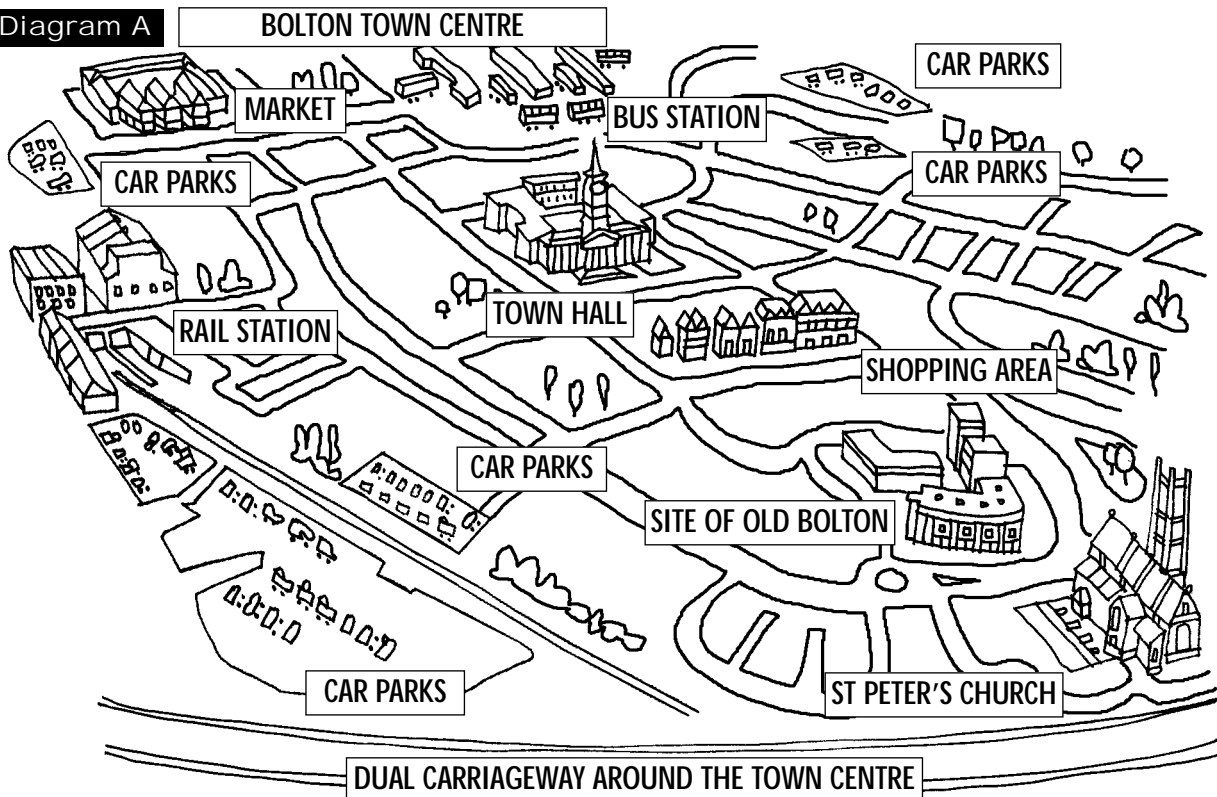
Things to do

1. What is a city land use pattern?
2. Make a copy of **Diagram A** and mark on the 5 land use zones A-E.
3. Look at **Diagram B** and write one sentence to explain what each land use zone contains.
4. How can transport change land use in a city like Manchester?

A town is a busy place where lots of people live close to each other. Living in a town has many advantages because people can share local services like hospitals and parks. Most towns have a centre, the place from where the town grew to its present shape today. The town centre is usually the oldest place in the town and where newest buildings are found. The town centre is easy for local people to reach. Most local roads meet here and the bus and railway stations

are found here. Local businesses and shop owners know the centre is the busiest place in the town for trade, so they have opened their shops and offices here. There are many towns within the Greater Manchester area and each one has its own special town centre. Bolton has an attractive town centre, it contains all the features you would expect local people and visitors to use, see **Diagram A**.

Diagram A



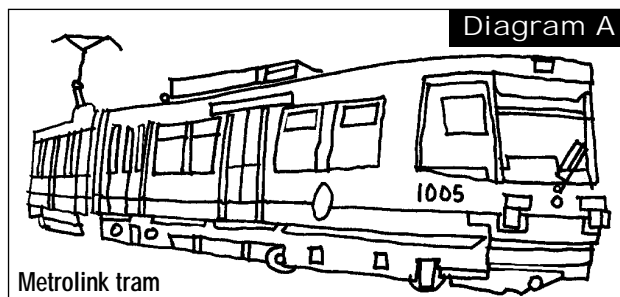
Things to do

1. List the famous buildings or monuments that can be seen in your local town centre that tell the story of its past.
2. Make a copy of **Table B**, look at **Diagram A**, and sort the features found in Bolton town centre.
3. Think of your local town centre. Can you add other features that are not already listed in the **Table B**?
4. Why do you think the cost of land is highest in the centre of a town?
5. In many towns, car parking takes up a lot of space. What sort of problems does this cause for planners?

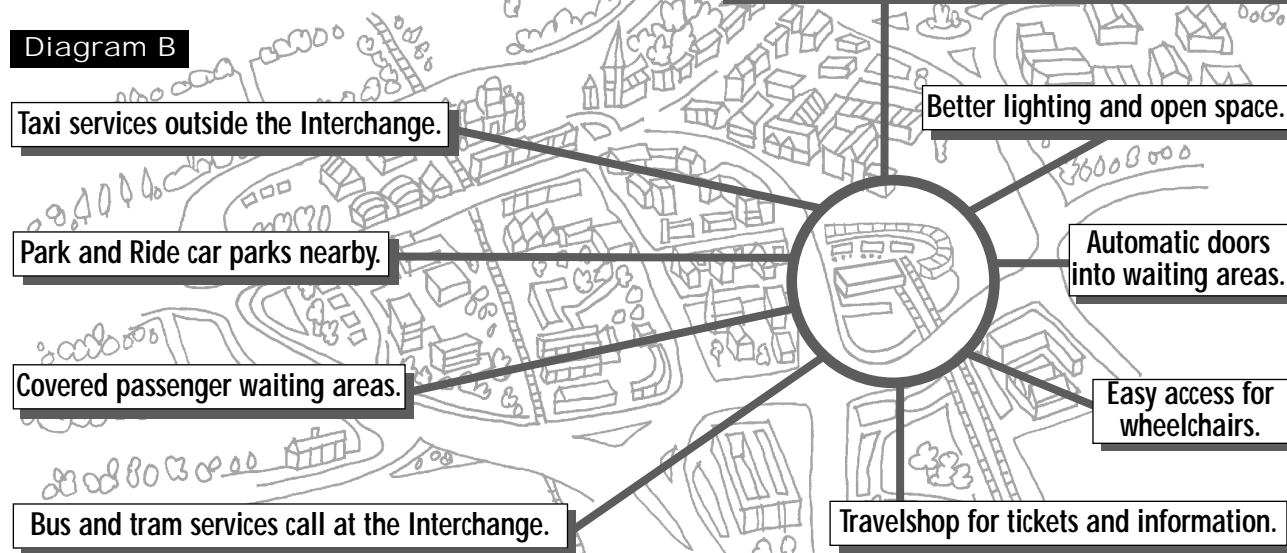
Table B

Transport services	Landmarks

In the early 1980s **GMPTE** considered plans to improve the railway network that served Manchester. Eventually, the Metrolink tram system was chosen because it could work on the existing railway lines, and provide a link across Manchester city centre. See **Diagram A**. The Metrolink service has to pay its way and so is being built in phases, using both existing railway track as well as on-street track. It is powered by electricity. At present, the system connects Bury in the north and Altrincham in the south and passes through the city centre. This first route was chosen because it linked two towns; it passed through many residential suburbs and crossed the city centre. Planners knew that some on-street tracks through the city centre would have to be built to link up Piccadilly and Victoria train stations to the system. The Metrolink system has proved a great success. It has combined the advantages of road and rail transport,



carrying people in comfort and at speed, right into the heart of the city centre. The Bury Interchange shows all the features passengers enjoy when travelling by Metrolink. See **Diagram B**. The trams have drivers but most of the service is automatic. Tickets can be obtained at machines at stops. Additional routes are being built today and other routes are planned to connect other towns within Greater Manchester in the future.



Things to do

- Describe 5 features of the Metrolink Tram system.
- What are the reasons that explain the choice of the first Metrolink route between Altrincham and Bury?
- List 3 advantages and 3 disadvantages of Metrolink travel.
- Look at **Diagram B**, and describe a visit to the Bury Interchange.
- Using a copy of a Metrolink map, draw a map to show the Metrolink system in Manchester city centre.



How do people travel from rural areas to the town?

TASK SHEET 10

A village is a small settlement, usually sited in the middle of the countryside, a long way from the nearest town. Today, few people living in a village work as farmers as they used to in the past. Many villages attract people who have retired or who want a quieter life, away from the busy town although they may still work there. In order to live in the village, local people depend on everyday services like the local store and school. For those who do not drive a car, the bus service may be their only way to travel to work, visit friends or to go to the large shops in the nearby town. Diggle is a rural village located in the Pennine Hills, to the east of Oldham. The daily bus service

timetable for Diggle is shown in **Diagram A**. GMPTE makes sure that regular bus services continue on certain routes, even if they do not make a profit. These routes have a high community value and GMPTE pays the bus company to provide the bus service. Such routes include local hospital bus services. Other bus services may be funded by GMPTE to enable people to get to school or to work, who live in more distant places, such as Uppermill and Diggle. It is part of the work of GMPTE to ensure, as far as possible, that normal life can continue for those people who do not drive but live a long way from local town centre transport services.

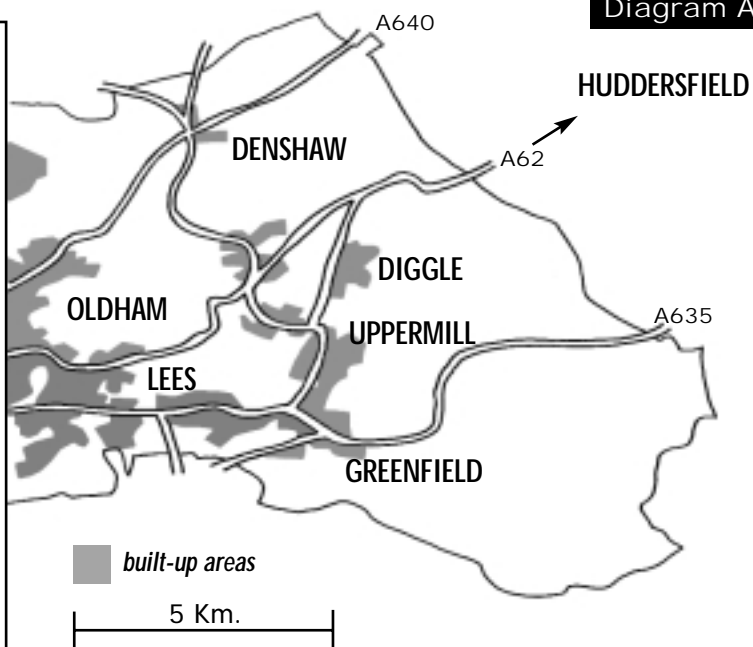
Diagram A

BUS SERVICE 427		
DIGGLE	UPPERMILL	OLDHAM
0654	0703	0730
0731	0742	0807
0811	0822	0847
0901	0912	0937
THEN HOURLY UNTIL		
1701	1712	1737
1802	1813	1838
1830	1841	1905

Saturday an hourly service starting at 0801 until the last service at 1830.

On Sunday, Service 365 provides an hourly service between Diggle and Oldham.

The 353 bus provides a regular service from Diggle in the evening to Oldham or Ashton.



Things to do

1. Why are there too few passengers using bus services from local villages?
2. Who do you think depends on the village bus service the most?
3. Which bus service can young people, wanting to go to Oldham in the evening use?
4. How can small places like Diggle get more bus services each day?
5. Name 3 problems the bus service faces in winter, to keep on time.

Settlements can be placed in order of population size, this is called a settlement hierarchy. Within the boundaries of Rochdale borough are a range of settlements of different sizes. It is a good example of a hierarchy. The larger places provide more services than smaller ones. Usually, low order goods are provided in the villages and hamlets. Low order goods are bought every week from local stores and each

Diagram A

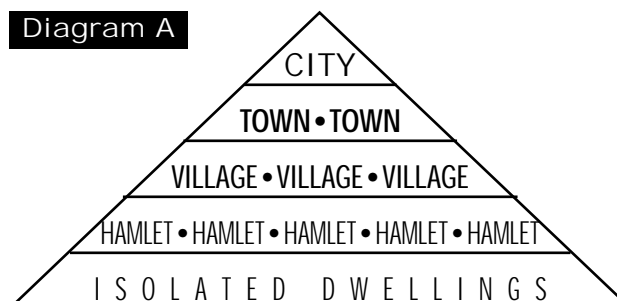
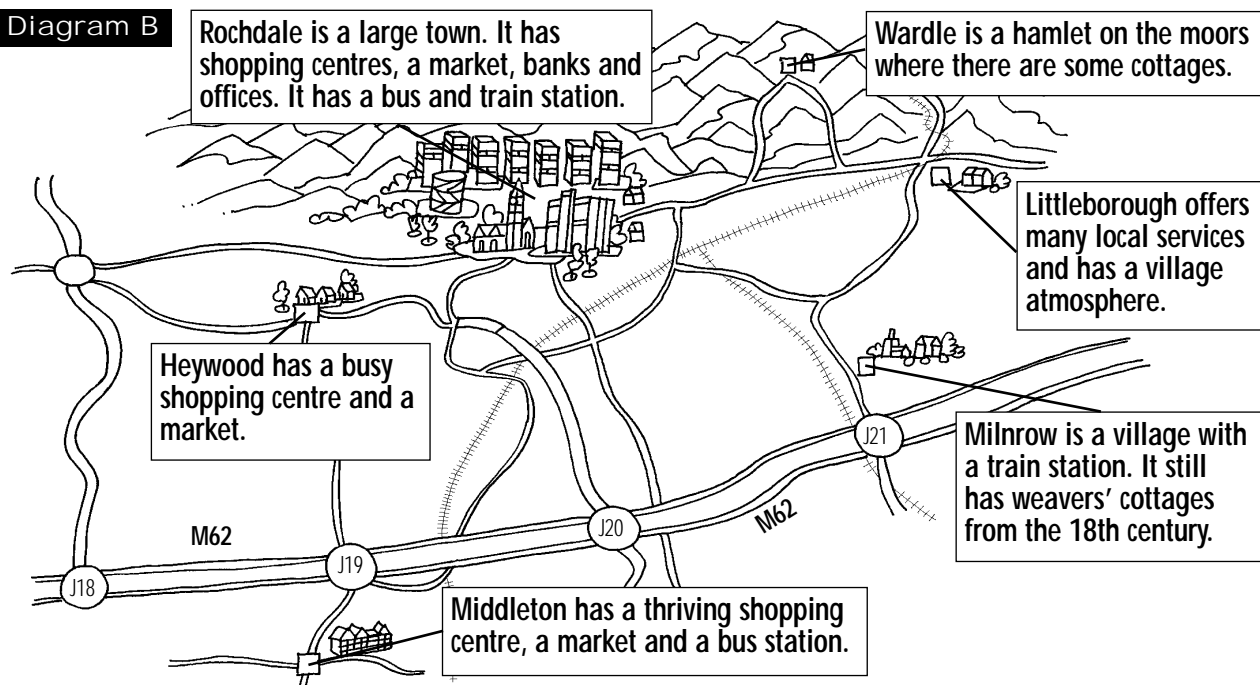


Diagram B



item is cheap compared to high order goods. The lives of local people are no longer based on one local place. Shoppers travel long distances for high order goods like televisions and computers. High order goods are bought at retail parks and in large town centre stores. These shops offer great choice and allow shoppers to compare prices. Good public transport links between places are important so that everyone living in the area can get access to the full range of shops, especially when making costly purchases. Having good quality public transport services between places gives everyone the choice to go to different places for different things.

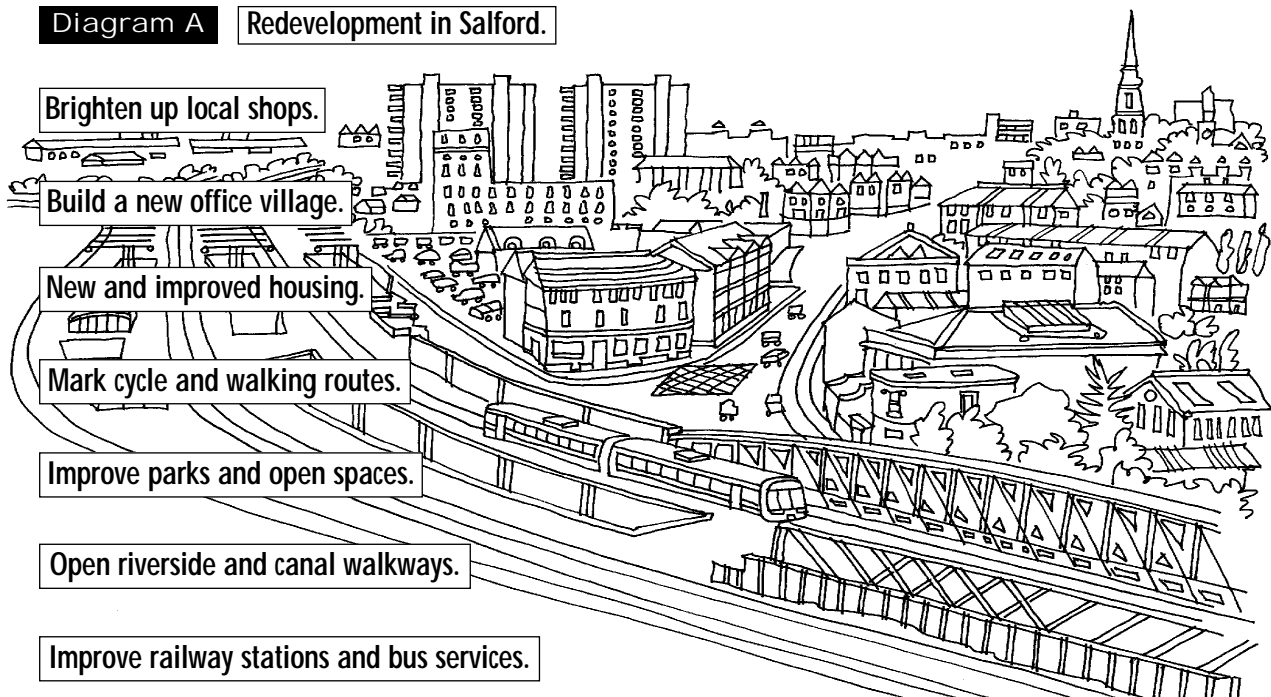
Things to do

1. What is a settlement hierarchy?
2. Make a copy of **Diagram A**, and use it to draw your local settlement hierarchy, naming actual places
3. What are the differences between low and high order goods?
4. Using the information in **Diagram B**, describe the services offered in a town, village, hamlet and city.
5. Why is it important to have good local transport services for all local towns?

In the 1960s many of the factories and mills in local towns were left empty and closed. Many local people lost their jobs. This was because the products made in the factories and mills could be imported at a cheaper price from overseas. In these areas, some of the older buildings have been demolished and the land cleared. Old coal tips have been turned into green open space parkland or have had industrial estates built upon them. Old housing in these areas has been demolished and rebuilt, other houses have been repaired. There are still many areas left to improve. Planners want to breathe new life into these areas and regenerate them. They ask everyone to have their say in the future, by making comments on the regeneration plan

for the area. This plan shows where the new or improved homes, shops, offices, industrial estates and leisure centres will be. Improved public transport services are always central to the regeneration of an area. Salford has good examples of where change has taken place and is still going on. Salford Quays was once a dockland area at the head of the Manchester Ship Canal. Today it is a heritage centre with restaurants and high cost houses, flats and offices. Metrolink will soon link it to Manchester city centre. Large retail parks have recently been built on either side of Salford's main roads and motorways. Look at **Diagram A**, it shows some of the redevelopment features planned along Chapel Street near the city centre.

Diagram A Redevelopment in Salford.



Things to do

1. Look at **Diagram A**, and list the types of features that will be improved in this regeneration area.
2. Find out what was done to improve your local area recently.
3. What does the word regeneration mean?
4. Why is improving public transport important to regenerating an area?
5. What do you think should be the best outcome after an area has been regenerated?



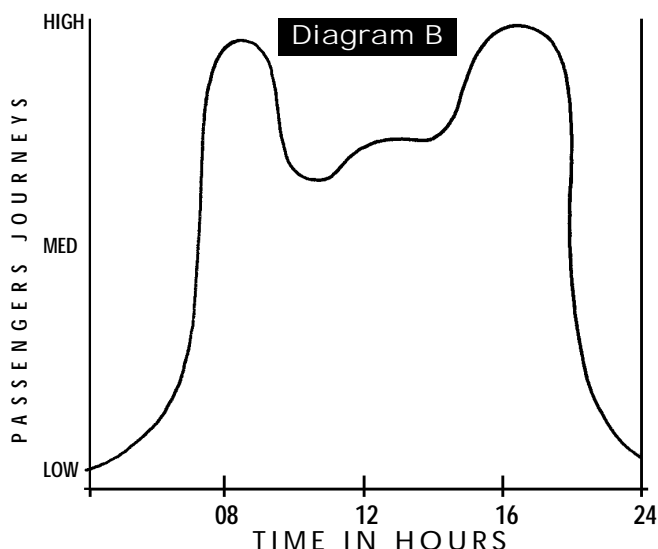
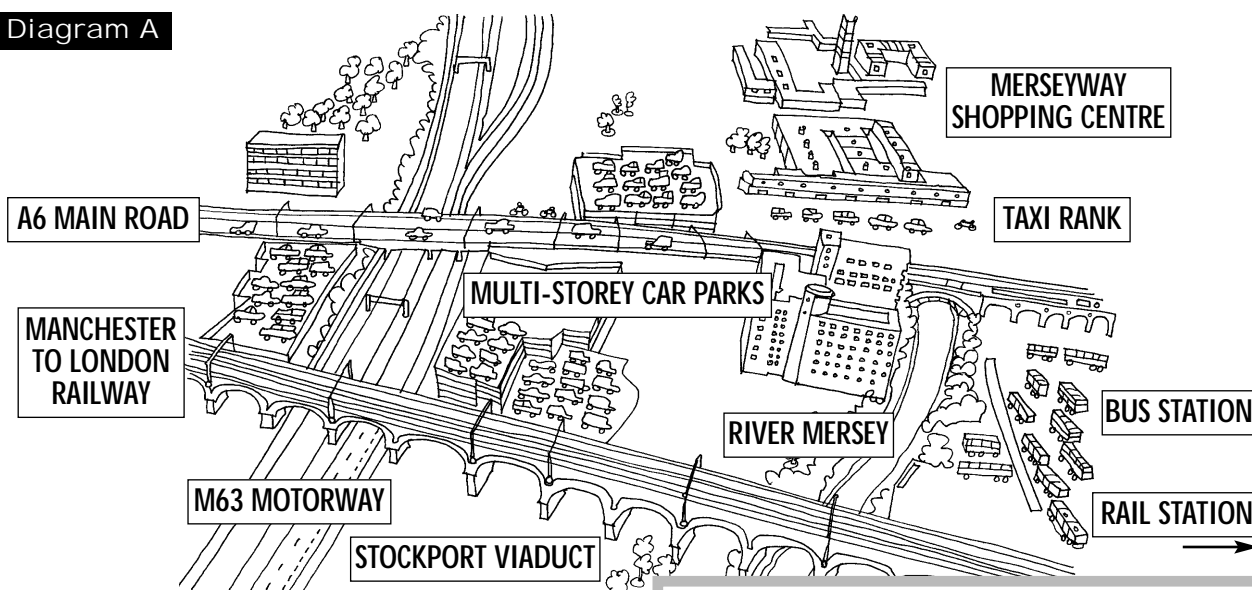
Why do commuters travel mainly in the rush hours?

TASK SHEET
13

A commuter is a person who lives in one place and goes to work in another place each day. Most commuters start work and finish work around the same time. These times are called the rush hours. During the rush hours, extra bus and train services are put on to make sure commuters get to work on time. The distance that a commuter travels is not as important as the time it takes to make the journey. Commuters rarely want to travel for more than an hour, to get to work. Most commuters in Greater Manchester travel short distances by bus. Train commuters tend to make

longer journeys. Stockport has lots of commuters coming and going in all directions, each day, to work. There is a large bus station and many bus stops making the town centre very accessible. The train station has a large car park so train commuters can park their cars and then go on to Manchester or travel to other places, by rail. Those who use public transport know how expensive and difficult it is to park in the towns and city. Not all commuters are car owners, they prefer to use public transport because it is direct, cheap and easy to use.

Diagram A



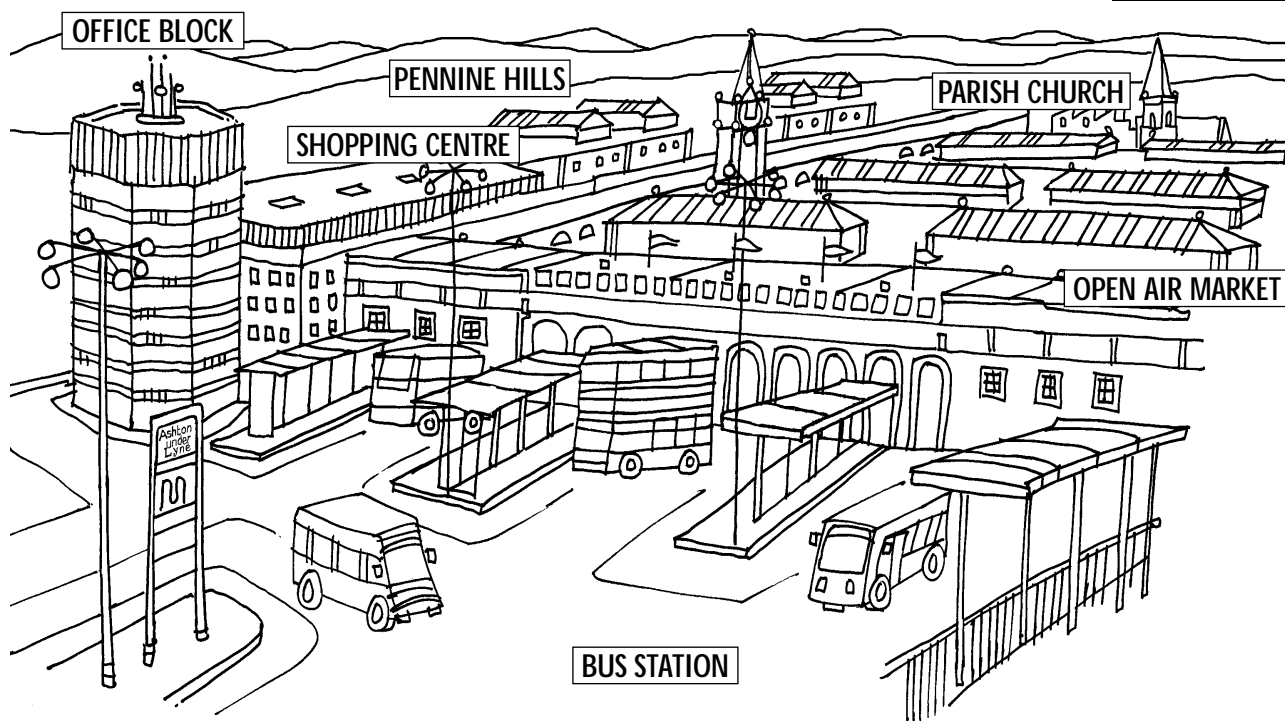
Things to do

1. What is a commuter?
2. What evidence is there in **Diagram A**, that local people commute daily to and from Stockport?
3. Where do commuters travel to and come from in your local town?
4. Make a copy of **Diagram B**. It shows when passengers are using public transport each day. Label and shade on your graph the rush hours.
5. Can you think of ways to reduce the numbers of people travelling at these rush hour times?

Ashton-under-Lyne is an old settlement, it has a parish church that was mentioned in the Domesday Book and it received its royal charter to hold a weekly market in the 13th century. The weekly market was always an important trading place for local people in and around Ashton. In the past, local farmers sold animals, crops and other produce to the townspeople. Visiting traders would have sold clothes and simple equipment. Years ago, market day was always a great event. It was one of the few days when the shops and streets were full of people. In recent times, market

towns have changed in character. Farmers now sell directly to supermarkets and large stores in the shopping centres. Today, the market stalls are set up daily on a purpose-built site, close to all shops. Ashton market is very accessible to the bus station, see **Diagram A**. It is only a short walk away, through Ashton's large shopping centre. Going to the market is still an exciting day out. Every market has its own character, you never know what you are going to find on each stall. Markets are held on most days of the week nowadays.

Diagram A



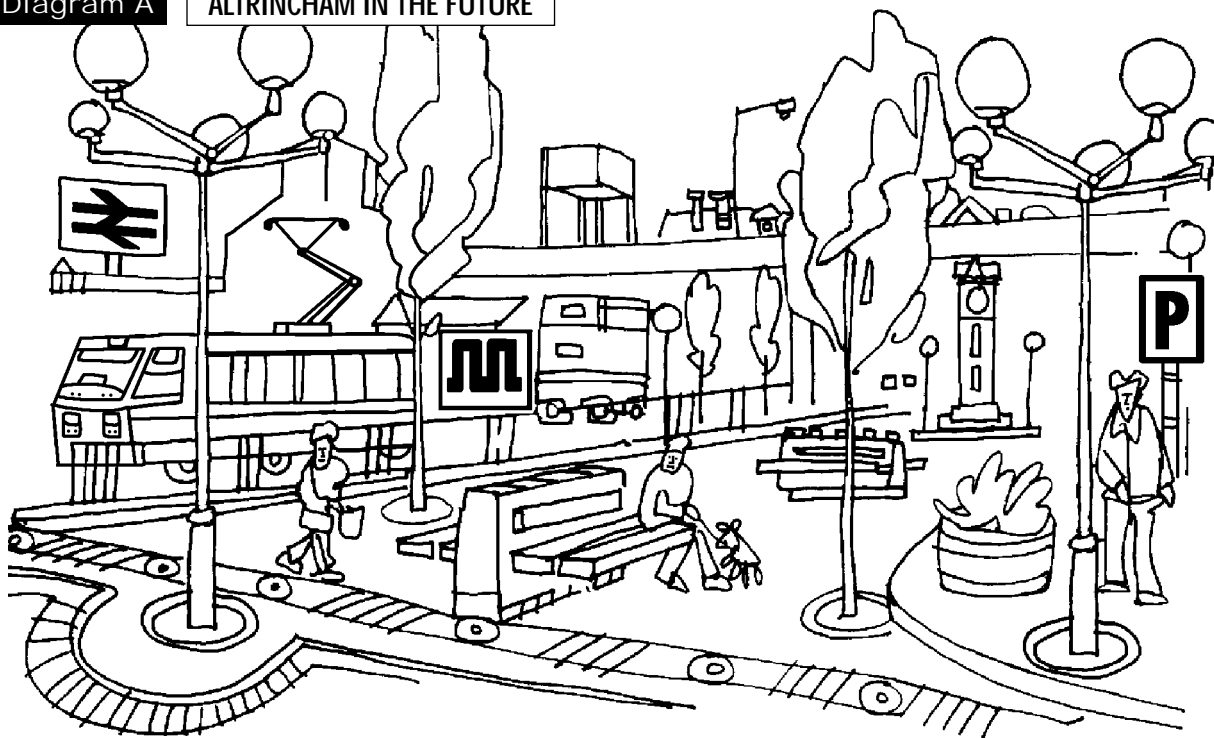
Things to do

1. Why do you think that so many local roads in the past, led to the town's market place?
2. Where and when is your local market held? What sorts of goods are sold at your local market?
3. Write three reasons to explain why today's markets are different to those of the past?
4. Why is it important today, in town centres, to have the bus station close to the market?
5. Draw a map to show the location of your local market and bus station. Use GMPTE's Bus Network map or town centre map to help.

The 1991 Census showed that car usage in all local towns is increasing. Unfortunately, lots of cars bring problems to others. It is common for people to complain about traffic jams, noise, accidents and pollution when in the crowded town centre. All the towns in the local area have improved things by establishing traffic-free pedestrian areas along the main shopping routes. Sometimes street furniture such as seating, shelters and new tree planting have made the town centre more "people-friendly," especially for families. In Altrincham town centre

GMPTE's Travel Interchange has been built opposite the main pedestrian shopping area. Buses, trams, trains and taxis all stop here. Local people can get to the shops quickly and safely. A walkway bridge over the busy road links the shops and the Interchange. There are plans to create a town square and make more roads close to the Travel Interchange, car-free. The future of the town centre is based on creating an environment that is popular with shoppers, visitors and people who want to work there.

Diagram A ALTRINCHAM IN THE FUTURE



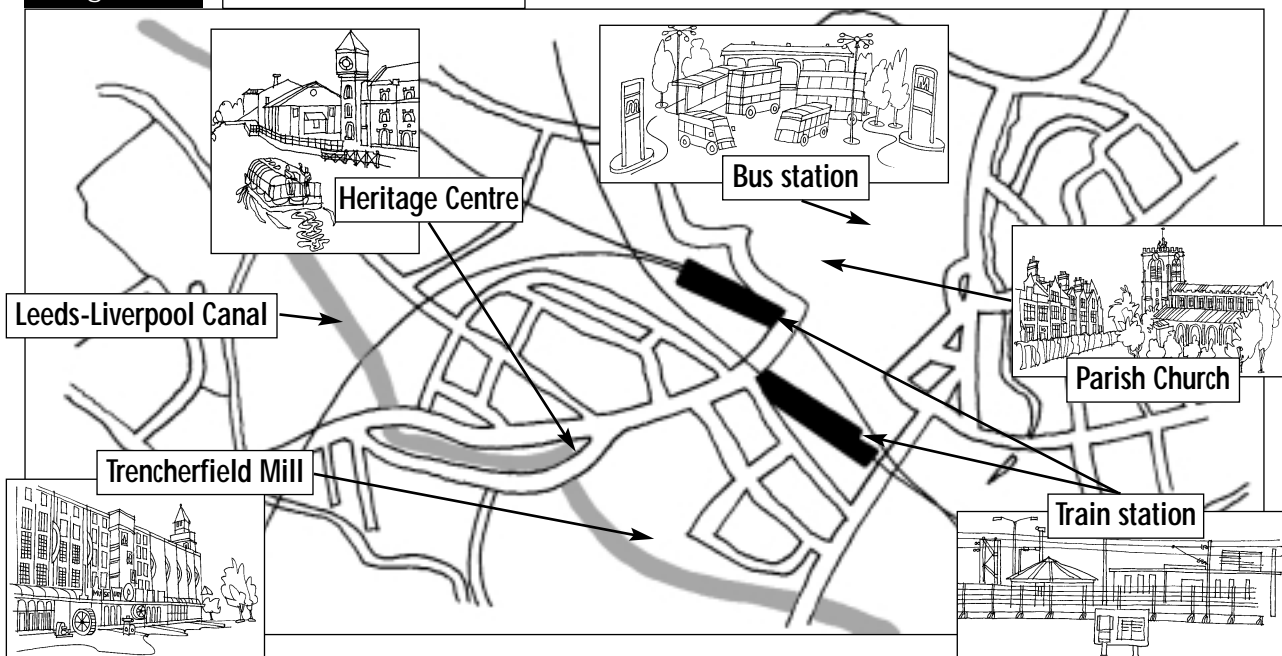
Things to do

1. Look at **Diagram A**. It shows Altrincham's Travel Interchange in the future. Can you find evidence to name 4 different types of transport at that Interchange?
2. On a map of your local town centre, mark on the pedestrian areas, the bus, tram, railway station and car parks. Using the map's scale to help you, work out which is nearer to the shopping area, the car parks or the stations?
3. Why do buses allow people to get very close to the shops and services found in the town centre?
4. Write a newspaper article to suggest how parts of your local town centre could be improved. Name the place and give examples of how and why things should be changed.

The Greater Manchester area has a long history but most of its towns grew rapidly in population at the time of the Industrial Revolution. From around 1750, mining, coal, and cloth-making developed, on a large scale, in and around the local towns of the area. At this time, some of the coal was used in the mills to power the giant looms and spinning machines to make cloth. Having access to canals was important for exporting coal and importing raw cotton to the cloth mills. Today, there are few coal mine shafts to be seen or cloth mills left. Both these industries have nearly

disappeared. It is now possible to import both coal and cloth more cheaply from countries abroad than to produce it locally. Near to the town centre of Wigan, a short walk from either the bus or train stations, is the famous Wigan Pier Heritage Centre see **Diagram A**. It includes an industrial museum and school room to show what local life was like in the past. Close by is a working mill where it is possible to see how cloth used to be made. In the town centre other buildings, monuments and attractions can be found that are reminders of the local industrial heritage.

Diagram A WIGAN TOWN CENTRE



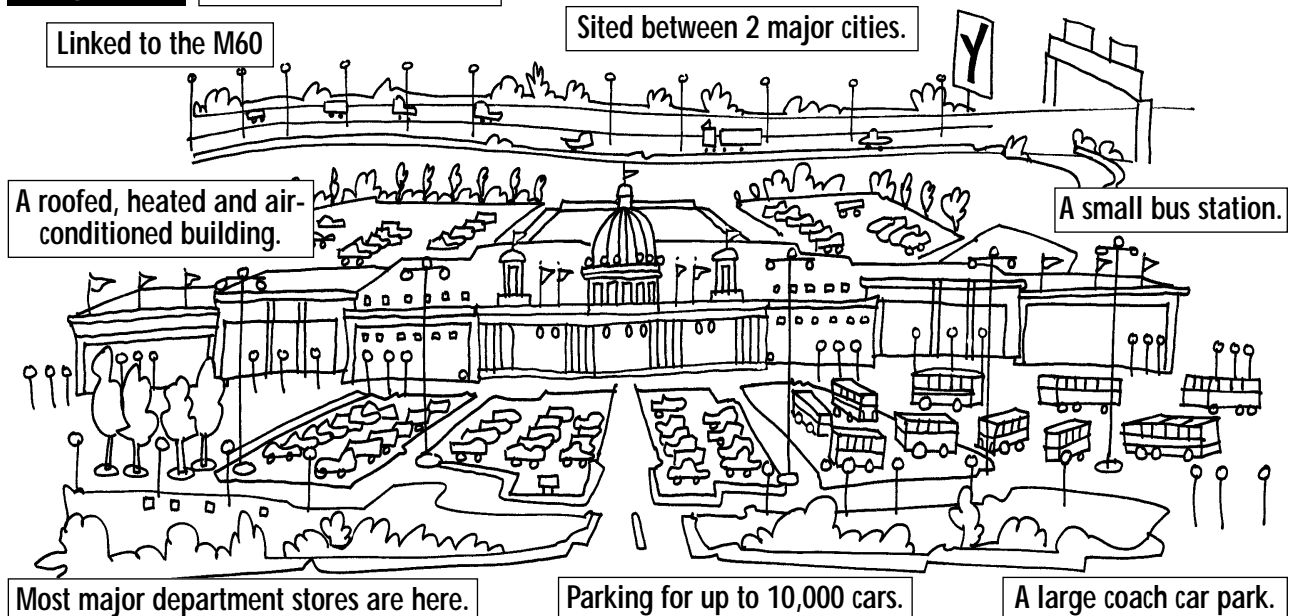
Things to do

1. In the 1750s, what were the two industries that provided work for local people?
2. Look at **Diagram A** and make a list of features that make Wigan a heritage centre today?
3. How do so many day visitors come and go, so easily, from Wigan?
4. Name and describe the local heritage places in your town.
5. Collect a **GMPTE** Wayfarer leaflet and list the travel offers you get when you use public transport to go to other local heritage centres.

In the past, large department stores have always been found in the city or town centre because they were accessible by public transport. In the last 30 years there has been a trend for more and more cars to be on the road. City centres and towns have become crowded with slow-moving traffic and a shortage of parking places, both common problems to shoppers using their cars. In general, retail parks with free car parking, have attracted shoppers away from the local town centres. These new shopping areas are purpose-built usually, made up of giant ground floor only units called super-stores. These large units have separate

access for delivery lorries taking goods in and the shopping areas themselves are traffic-free. The shops open 7 days a week and late until the evening. One giant retail park, the Trafford Centre see **Diagram A**, has free parking for 10,000 cars and is served by 33 bus services. Retail parks have reduced trade in the local town centre shops. Planners can now see that traffic jams occur regularly on roads leading to out-of-town shopping centres. Most local people realise that improving the facilities of the town centres and providing high quality public transport services makes great sense for the future.

Diagram A THE TRAFFORD CENTRE



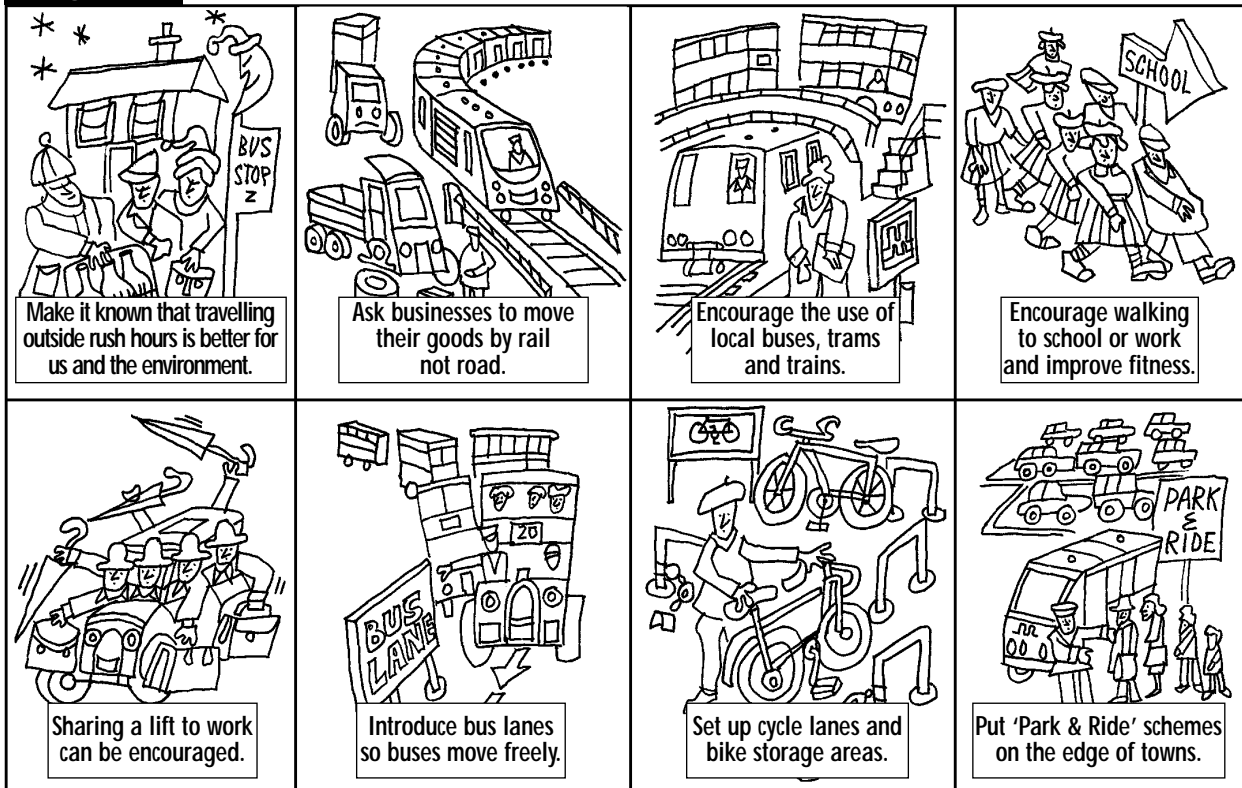
Things to do

1. Name the retail park that is close to your local town.
2. What sorts of goods are sold in the shops in your local retail park?
3. Look at **Diagram A** and explain why the Trafford Centre is popular by giving your reasons under the headings 'Shopping' and 'Transport'.
4. What problems do retail parks create in their local area?
5. How can those who do not drive get access to retail shopping parks?

In the Greater Manchester Area, there are thousands of road users that travel to and from work every week during the rush hours. These commuters travel into the town and city centre from all directions. Having enough car parking spaces for those who use cars is a big problem in local town and city centres, because there is a shortage of space. Car users have to pay expensive parking fees too. At peak times, when most people travel, the traffic flowing into and out from local towns and cities is very slow-moving. Traffic

jams occur sometimes blocking the roads and causing long delays. Around the same times each day some parents are taking their children to and from school by car and it is believed that this accounts for an extra 20% of traffic on the roads. It is easy to work out why most road accidents occur at these times. Local councils are trying to reduce the number of cars and lorries in our town centres. Some of the methods they are using are shown in **Diagram A**.

Diagram A



Things to do

- Using the terms, *early morning, midday, late afternoon, daily flow, few, most, least vehicles*; describe the traffic flows into and out of Manchester or your local town on a typical weekday.
- Why are most road accidents caused during the rush hours?
- Can you think of any ways to lower the number of cars taking children to school each day?
- Look at **Diagram A** and list, with a local example, some of the actions your council is taking to reduce or control the amount of traffic on local roads.
- What other things could be done to encourage people to change their travel habits by using their cars less?



Why does using the bus make towns better places to live in?

TASK SHEET
19

Today the motor car seems to be an essential part of life. People come out of their front doors and jump into the car, without thinking, to do even the shortest journeys. As a direct result there has been an increase in air pollution caused by exhaust fumes coming from petrol and diesel engines of road vehicles. Even more pollution occurs especially when vehicles are waiting in traffic jams. This hazardous air pollution is shown in **Diagram A**. Buses could help reduce pollution damage because of the fact that they carry far more people per kilometre than cars. A bus when full of passengers

could replace 15 cars full of people or 35 cars with only 2 people travelling together. **GMPT** encourages people to leave their cars at home and use public transport, in an attempt to make Greater Manchester a more healthy place. The government has passed laws to help organisations like **GMPT** encourage local people to use public transport, cycle or walk and reduce traffic in towns. In order to reduce pollution public transport organisations are being asked to provide some of the measures shown in **Diagram B**, to protect the environment.

Diagram A

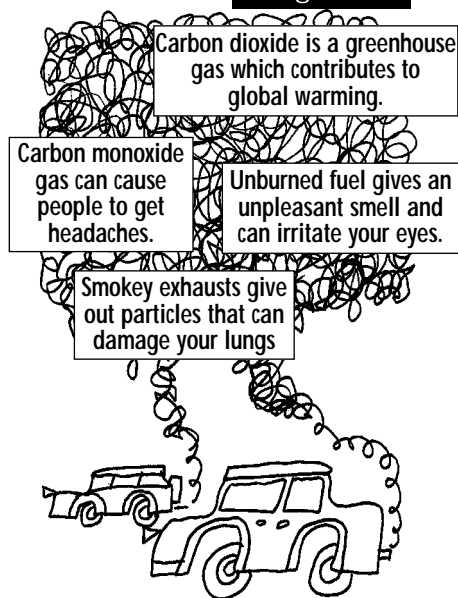
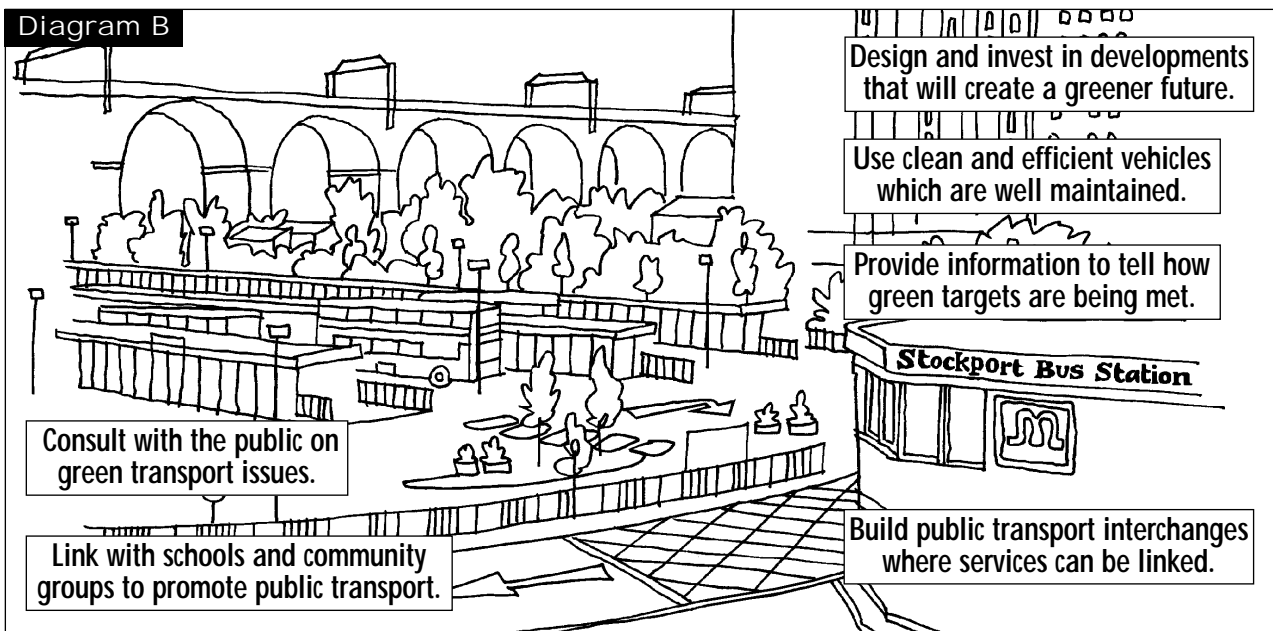


Diagram B



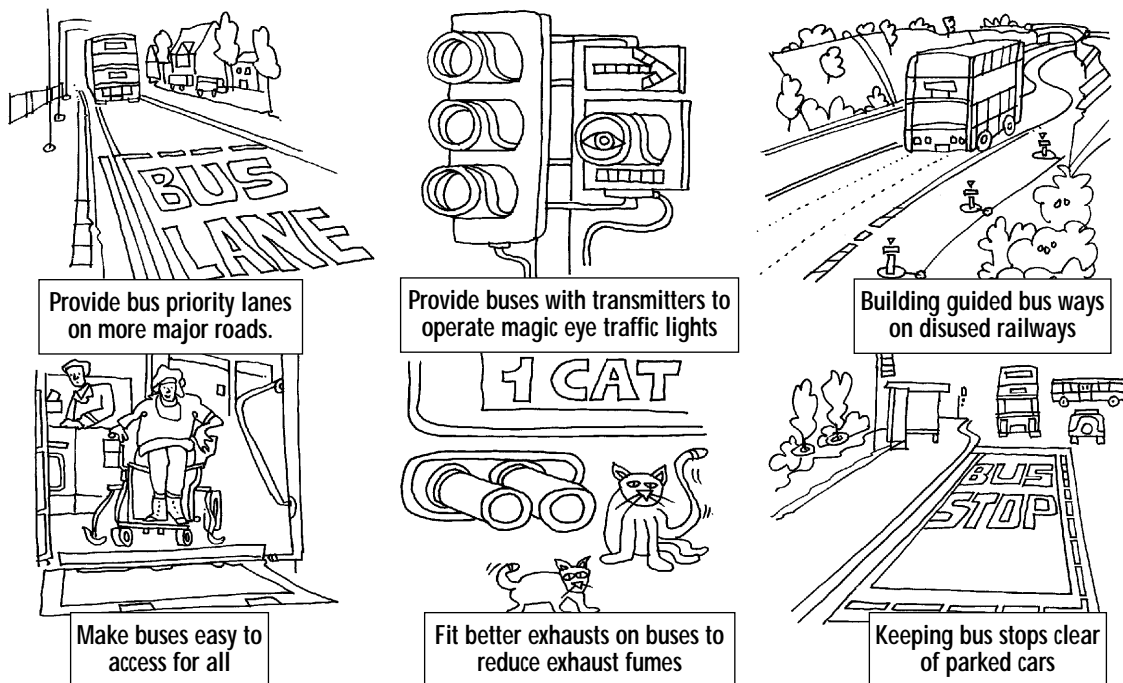
Things to do

1. Why is it healthier for people not to make short journeys by car?
2. Use newspapers, TELETEXT or CEEFAX to obtain local air quality information. How does your area compare with other places?
3. Using **Diagram A**, explain how exhaust fumes pollute the air.
4. Give three reasons that explain why travelling by bus is good for your local town.
5. Write a letter to **GMPT** using **Diagram B**, explaining how they could improve and promote bus travel.

The government has realised that building and repairing roads is not the way forward to meet the demands of the ever-increasing rise in road traffic. Building new roads leads to more places where traffic congestion and car park shortages can take place. Providing the travelling public with good quality public transport seems the only sensible way forward in the future. To change people's travel habits in the future and increase the numbers of people travelling by bus, services will always need to be comfortable, reliable, punctual and relatively cheap to use. GMPTE has responded by improving bus stations, providing up-to-date timetable information and selling a range of tickets for different travellers. It is mainly traffic congestion that causes timetable delays to buses. Marking

out more roads with bus priority lanes will give the bus an advantage over the car. Another method is to have traffic lights which turn to green as the bus approaches so avoiding it being held up. These buses will be fitted with transmitters which will send out a signal to road-side detectors so that the bus gets a green light as it approaches. Guided busways are another method which make journey times for the bus shorter. Guided busways can use disused railway tracks and even the central reservation of main roads if there is space. There are other ideas shown in **Diagram A**, that GMPTE has considered recently when working with local councils to reduce traffic congestion.

Diagram A



Things to do

1. What are the reasons to explain that fewer roads will be built in the future?
2. How does road congestion cause delays to buses?
3. As town centres cover a very small area do you

think that road traffic should be banned from them? List 3 advantages and 3 disadvantages.

4. Make a copy of the table below, complete it by using the information in **Diagram A**.

How to make bus services more reliable	
Buses	Roads



Glossary



Accessibility

The ease with which a place can be reached from other places.

By-law

A rule made by a local council.

Census

A population survey taken every ten years by the government.

Concessionary

A fare paid at a reduced rate.

Commuter

A person who lives in one place and travels elsewhere to work every day.

Congestion

Slow moving or standstill traffic on over-crowded roads.

Deregulation

A law that allows private companies to operate public transport services.

Environment

The place where we live, our surroundings.

Guided bus ways

Special routes that allow only buses to move along.

Heritage centre

A place that has protected its historic buildings and monuments.

Hierarchy

A collection of items arranged in order according to size.

Integrated transport

A system where all forms of transport are planned and linked together.

Interchange

A place where travellers can change from one form of transport to another.

Light Rapid Transport

A modern electric tram or railway service that can run on rails on roads.

Park and ride

A bus service provided from a car park on the outskirts of a town to the town centre.

Passenger Transport Authority

A body of councillors who ensure that public transport services meet local needs.

Pedestrianisation

Traffic-free areas where people can walk in safety.

Public transport

Fare paying travel services provided locally, enabling many people to travel together along particular routes.

Regenerate

Improving an area, on a large scale, by investing large amounts of money.

Residential

A built up area where people live.

Retail Park

A shopping centre, made up of large stores, usually located on the outskirts of a town or city.

Rural

An area of countryside.

Rush hour

A time in the day when most people travel to or from work or school.

Suburb

A large area of housing located within a city boundary.

Toll

A fee or charge paid by a vehicle to use roads, tunnel or bridge.