

Programme 3

TRAFFIC



Unit 3: Traffic Management

Teaching Point

The growth and expansion of traffic in our towns and cities requires management and specific strategies.

Outcomes: Having completed this unit the student should be able to

- ✎ Evaluate the traffic situation in their own community.
- ✎ Identify main sources of the problem.
- ✎ Identify their own strategies to solve these problems.
- ✎ Critically examine the traffic management strategies proposed by the local authority.

Aonad 3: Bainistiú Tráchta

Pointe Teagaisc

Ní mór bainistiú a dhéanamh ar fhás agus leathnú tráchta inár mbailte agus inár gcathracha agus leas a bhaint as straitéisí sonracha.

Torthaí: Tar éis an aonaid seo a fhreagairt ba chóir go mbeadh daltaí ábalta

- ✎ Measúnú a dhéanamh ar staid an tráchta ina bpobal féin.
- ✎ Príomhfhoinsí na faidhbe a aithint
- ✎ A gcuid straitéisí féin ar conas na fadhbanna seo a réiteach a aithint.
- ✎ Iniúchadh criticiúil a dhéanamh ar an straitéis bainistithe tráchta atá beartaithe ag an údarás áitiúil.

Activities

1. Map work

Use the 1:50,000 OS map of your area to identify the possible traffic trouble spots. Identify each area with a grid reference. Then draw a sketch map to highlight each area. Now focus in on one of these areas, which is very familiar to the class. Get a street plan, 6 inch map or simply draw a sketch of the area. Each student must attempt to solve the problem using the normal strategies. These could include traffic lights, one-way systems, public transport or pedestrianised streets, etc. The solutions must be presented as both a map and a written strategy.

2. Group work

Divide the class into 4-6 groups and provide each group with the relevant sections of the EPA Millennium Report on traffic issues. Also provide each group with details of the local traffic management strategy. This can be got from the local authority or possibly from their website. If a local traffic management strategy is not readily available then use the details of the Dublin Transport Initiative provided in the video. Each group should then carry out a **SWOT** analysis on the strategy bearing in mind the national figures from the EPA Millennium Report. **SWOT** analysis involves a focus on the **S**trengths, **W**eaknesses, **O**pportunities and **T**hreats. Based on this analysis each group should critically analyse the strategy and suggest changes and improvements. Each group should report back and use the discussion to form a consensus. Students should ask the question "Does this strategy represent a sustainable environmental development?"

3. Individual research Journey to Work Survey

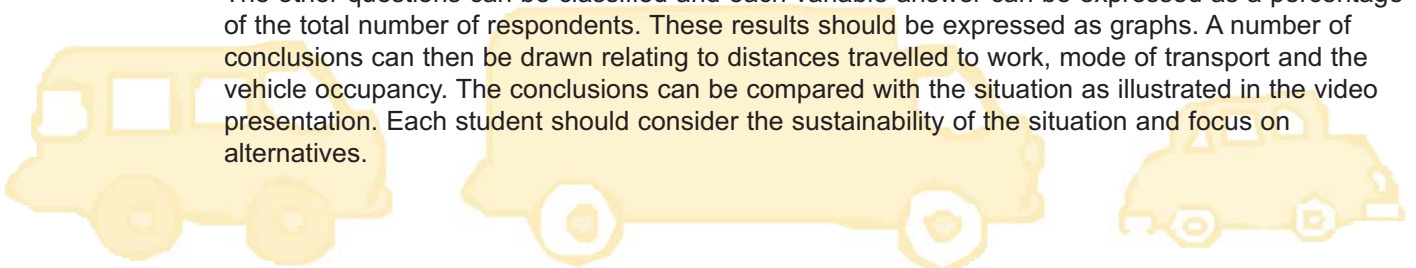
Students are asked to complete a survey of the journey to work patterns of ten neighbours. A class group of 20 students will return up to 200 completed responses. The survey should ask each respondent;

- ✎ his/her place of work
- ✎ his/her mode of transport
- ✎ the number of passengers (if a car is used)
- ✎ his/her attitude to traffic and the time spent travelling
- ✎ any improvements or alternatives he/she could suggest

The class should plan a short questionnaire and complete the survey as homework. The results could be combined by each student in the class. Journey to work will have to be analysed according to distance. These can be worked out using thresholds e.g.

1. travelling up to 1 mile
2. travelling between 2 to 5 miles
3. travelling between 5 and 15 miles
4. travelling over 15 miles

The other questions can be classified and each variable answer can be expressed as a percentage of the total number of respondents. These results should be expressed as graphs. A number of conclusions can then be drawn relating to distances travelled to work, mode of transport and the vehicle occupancy. The conclusions can be compared with the situation as illustrated in the video presentation. Each student should consider the sustainability of the situation and focus on alternatives.



4. Planning Exercise

Convene a planning appeal meeting to discuss the proposal for a new section of road to be built as part of the National Development Plan by the National Roads Authority (NRA). The teacher should produce a sketch of the proposed route or give the class details of a case study based on NRA literature. The class is divided into four panels each representing an interest group and one as the planners.

- ✎ local residents
- ✎ environmental groups
- ✎ local business interests
- ✎ the NRA
- ✎ the planning authority

The proposal for the road should be outlined by a group representing the planning department of the local authority. Use maps or sketches if necessary. A real case study could also be used for the purpose.

Each group should look at the proposal from the point of view of their interest group.

Rearrange the tables and chairs to convene a meeting of the planning authority in the classroom.

Each interest group should present in turn for 2 to 3 minutes. Then the planners review the presented issues and make a decision.

5. Investigation Fieldwork

Identify a traffic management issue in your community which you have discussed and explore it in more detail.

Remember the steps!

Step 1: Identify key aims or formulate a hypothesis.

Step 2: Identify and get the background material required.

Step 3: Identify the main methods of gathering your information.

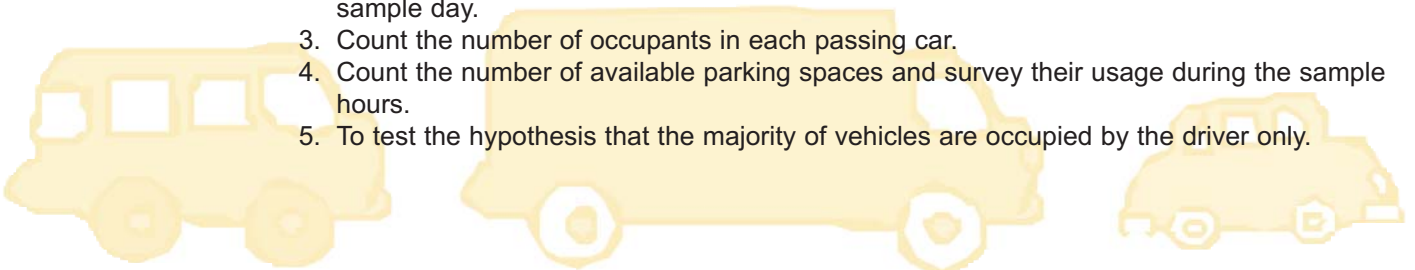
Step 4: Identify the main results and draw a conclusion.

Step 5: Identify some achievable actions, which may help the situation.

Investigation Title: Traffic and Parking in our Area

Step 1: Aims

1. To identify the traffic flow near your school over 3 sample days.
2. Classify the types of vehicles travelling in each direction across two sample hours on each sample day.
3. Count the number of occupants in each passing car.
4. Count the number of available parking spaces and survey their usage during the sample hours.
5. To test the hypothesis that the majority of vehicles are occupied by the driver only.



Step 2: Preparation and Background Materials

1. Get any figures, studies or traffic surveys that are available from the local authorities.
2. Check the Central Statistics web site for up to date traffic statistics www.cso.ie
3. Check the EPA web site www.epa.ie for national and regional figures and take a look at the EPA Millennium Report section on traffic.

Step 3: Methods of Gathering

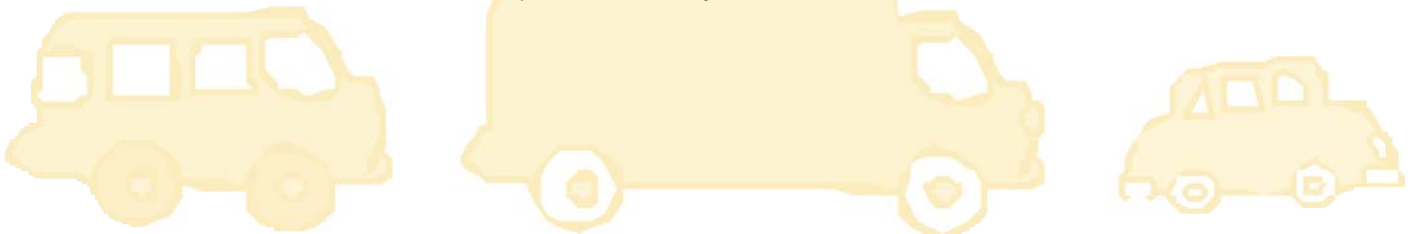
1. Pick your sample days at random from Monday to Friday.
2. Pick your two sample hours per day at random from "a hat"
3. Draft your counting sheets for the traffic survey. See Sample Sheet
4. Draft the sheet for the parking survey. See Sample Sheet
5. Divide into groups and count the different vehicles as they pass your survey point. One or two students should call the type of vehicle and another should enter the result on the recording sheet. Another group should work on the occupancy rate. One student should estimate and call out the number of occupants in the vehicle while another student should record the information on the recording sheet.
6. Another group of students should count the number of empty car park spaces at the beginning of each sample hour. They should note anything of interest i.e. poor parking practice, double-parking, areas which are particularly busy, provision of disabled parking or disabled parking used by able-bodied drivers, and areas that appear to have all day parking.

Step 4: Results and conclusions

1. Back in class divide into groups and work out the basic results. One group should count and classify the vehicles. Work out percentages for each from the total number of vehicles recorded.
2. Another group should work out the statistics for the occupancy rate showing the numbers of vehicles with a driver only up to vehicles with more than 5 occupants.
3. Another group should work out the percentage of available parking spaces during the survey hours.
4. All results should be graphed.
5. Now draw conclusions about:
 - ✦ traffic flows and vehicle types
 - ✦ vehicle occupancy rates - is the hypothesis proven or not?
 - ✦ parking availability
6. Make recommendations if you think improvements are required.

Step 5: Action

1. Make a display of your results and exhibit them in school or in a public building.
2. Send your results to the local authority with your suggestions for change.
3. Write a report for the local newspaper highlighting your findings and recommendations.
4. Invite a local representative to your class to discuss the issue.





Programme 3

TRAFFIC

Look at the videotape once. Look, Listen, Concentrate and Enjoy! 26 minutes approximately. How closely did you look?

Now take a second look. Stop, Start and Rewind the tape to identify clearly what you think Duncan is now telling us about the traffic situation in Ireland.

The programme is divided roughly between the problems caused by the growth of traffic and how these problems can be solved.

Now complete the following worksheet questions.

The programme opens with images of Irish roads and cars. It also has voices and recordings from the media.

1. What visual images are presented of the traffic situation and what do the voices suggest?

2. How has centralisation affected the traffic situation?

3. Dublin is now twice the area of another European city, which one?

4. What is urban sprawl?

5. What is the image of an "edge city" that is presented? Why do you think that this type of city is unsustainable?



Clár 3

Trácht

Féach uair amháin ar an bhfistéip. Féach, Éist, Dírigh d'intinn air agus Bain Sult As! Timpeall 26 nóiméad. Cé chomh grinn is a d'fhéach tú?

Anois féach in athuair. Stop, Tosaigh agus Cuir Siar an téip chun a aithint go soiléir cad a cheapann tusa atá á rá ag Duncan linn faoi thrácht in Éirinn.

Tá an clár seo roinnte go garbh idir na fadhbanna a chothaíonn méadú ar thrácht agus conas na fadhbanna sin a réiteach.

Freagair ceisteanna na bileoige oibre seo a leanas:

Osclaíonn an clár le híomhánna de bhóithre na hÉireann agus carranna. Tá glórtha agus taifid ó na meáin ann freisin.

1. Cad iad na híomhánna a léirítear de staid an tráchta agus cad a thugann na glórtha le fios?

2. Cén tionchar atá ag lárnú ar staid an tráchta?

3. Tá Baile Átha Cliath dhá uair chomh mór le cathair Eorpach eile, cén ceann?

4. Cad is sraoilleáil uirbeach ann?

5. Cad é an íomhá de "chathair imeallach" a chuirtear i láthair? Cén fáth an gceapann tú nach bhfuil an cineál sin cathrach inmharthanach?



6. What towns have now become part of the acceptable commuting distance to Dublin?

7. Dublin in the past. What visual images of transportation are presented?

8. Complete the table.

Date	Number of Cars	Average City Speed
1991		
Today (2001)		
2116		

9. What is the impact of traffic congestion and gridlock?

10. How does traffic affect inner city communities?

11. What are the chemicals "freely available" from the traffic on College Green, Dublin?

12. What are the short and long term medical effects of urban air pollution?



6. Cé na bailte atá anois achar inghlactha comaitéireachta ó Bhaile Átha Cliath?

7. Baile Átha Cliath san am a caitheadh. Cé na híomhánna d’iompar a chuirtear i láthair?

8. Líon isteach an tábla.

Dáta	Líon Carranna	Meánluas Cathrach
1991		
Inniu (2001)		
2116		

9. Cén tionchar a bhíonn ag plódú agus tranglam tráchta?

10. Conas a mbíonn tionchar ag trácht ar phobail i lár na cathrach?

11. Cé na cemiceáin atá ‘le fáil go fairsing’ ó thrácht ar Fhaiche an Choláiste, Baile Átha Cliath?

12. Cad iad na tionchair leighis fhadtéarmacha agus ghearrtéarmacha a bhíonn ann de bharr truailliú aeir uirbigh?



13. What are the major changes that took place in Munich in relation to the car in the city?

Solutions

1. What is suggested as the simplest solution to urban traffic?

2. What is the Dublin Transport Initiative (DTI)?

3. What are the four modes of the DTI?

- _____
- _____
- _____
- _____

4. What is the first task and what must be done to complete this?

5. What is the proposed light rail system called and how is it accessible?

6. What kind of metro system is planned?



13. Cad iad na hathruithe móra a tharla i München i dtaobh carranna sa chathair?

Réitigh

1. Cad é an réiteach is simplí a mholtar ar thrácht uirbeach?

2. Cad é Tionscnamh Iompair Bhaile Átha Cliath (DTI)?

3. Cad iad ceithre mhodh an DTI?

- ---
- ---
- ---
- ---

4. Cad é an chéad tasc agus cad a chaithear a dhéanamh chun é sin a bhaint amach?

5. Cén t-ainm atá ar gcóras ráille éadrom atá beartaithe agus conas a mbeidh teacht air?

6. Cén cineál córas metro atá beartaithe?



7. What is a QBC and how will the bus service change under the new plan?

8. What were the main issues raised when planning the Stillorgan QBC?

9. What evidence suggests that it was effective?

10. How is the DTI improving the situation for cyclists?

11. How long will it take until all this planned infrastructure is put in place?



7. Cad is QBC ann agus conas a athróidh an tseirbhís bus faoin bplean nua?

8. Cad iad na príomhcheisteanna a ardaíodh nuair a bhí QBC Stigh Lorgan á phleanáil?

9. Cén fhianaise atá ann a thugann le fios go raibh sé éifeachtach?

10. Conas mar atá an DTI ag cur feabhas ar chúrsaí do rothaithe?

11. Cé chomh fada a thógfaidh sé an bonneagar beartaithe seo a chur i bhfeidhm?



What Can You Do?

12. According to the National Climate Change Strategy what must happen?

13. What other positive steps can be taken to improve air quality?

14. What are the choices available to road users now?



Cad is féidir leatsa a dhéanamh?

12. De réir na Straitéise Náisiúnta um Athrú Aeráide cad a chaithfidh tarlú?

13. Cé na céimeanna dearfacha eile is féidir a thógáil chun caighdeán aeir a fheabhsú?

14. Cad iad na roghanna eile atá ar fáil d'úsáideoirí bóthair anois?
