

Resource activities contents

Section 2 – Tuning in

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2.1 A changing world

TravelSmart Objectives Australia

To establish an appreciation of what life was like before the development of the motor car; to realise how the motor car has changed over time and to understand that the motor car has changed our society.

TravelSmart Outcomes Australia

Students will be able to:

- develop an understanding of how the motor car has evolved
 - develop an understanding of how the motor car has changed our society
 - discuss how people travelled before the motor vehicle became a common form of family transport
 - conduct an interview to collect information.
-



JUNIOR PRIMARY – 2.1 Learning activities

Discussion

Ask students to think about the types of transport that would have been used before 'everybody' had a motor car. Make a list of transport types, for example, horse and cart, walking, cycling, public transport, scooter, roller skates.

How would this have affected the way people lived?

Concept map

Develop a concept map to explore travel concepts – how far would people have travelled, how fast would they have travelled, where would they have shopped, how would they have travelled to work, where did they go in their spare time, how were loads carried?



Section 5 – Resources – 5.1 Thinking and teaching strategies

Research

Ask students to use resources from home and school to find out what early forms of transport looked like. Research motor cars, bicycles, motor bikes, buses, trams, trains and carts, even wheelbarrows. What form of transport would they want to have travelled in? Create a class collage of ideas and reasons for choices.

Descriptive writing

Students find a picture of their favourite car in a magazine or newspaper and write a description of it. They could also tell a story of a journey they have been on with their family or friends.



Section 5 – Resources – 5.3 Text types

Design – What will cars be like in the future?

Ask students to design a futuristic car, incorporating favourite features. As a class, develop an assessment plan for car design. Each group member explains their design to the group and is assessed on their presentation. Create a role play of the launch of the vehicle to the world.



MIDDLE PRIMARY – 2.1 Learning activities

TravelSmart Log

What is a log? (a record of events; a systematic record of things done¹). All TravelSmart activities could be kept in a personal log book or folder. Start with a glossary page which lists all the words associated with TravelSmart that students should understand.

For example, what does 'motor vehicle' mean? Brainstorm different types of motor vehicles. Build a glossary of these transport terms and add to it throughout the TravelSmart unit of work.

Research

Students write a letter to a grandparent or older friend, asking them about the modes of transport they experienced or used when they were younger.

Focus questions:

- When did you first ride in a car?
- Did your family own a car?
- Did travelling take longer than it does now? Why was this so?
- How much walking was done?
- How did you travel to school?
- What other sorts of transport did you use?
- Did you own a bicycle?
- Can you remember any funny or interesting things that happened?



Section 5 – Resources – 5.3 Text types

Interview

Students prepare a list of questions about travel experiences to ask an older person – a friend, neighbour, grandparent or great grand parent. Local retirement villages may be willing to participate in this activity.

Students could record their interviews using either a video camera or cassette recorder, or by noting answers. It is necessary to gain prior permission from interviewees if the information they give is recorded or used in any way.

Additional focus questions:

- Any of those suggested for the letter writing activity above
- What is your first memory of travelling in a car?
- How have motor cars affected the development of your district/town/suburb/city?
- Where did you do your shopping?
- What sorts of shops did you go to – supermarkets, corner shops, department stores?
- Did your family grow their own food?
- Were there home deliveries?
- Did families have more than one vehicle? What types did they have?
- Did you travel away from home for holidays? Where did you go?

¹ *The Australian Concise Oxford Dictionary. 3rd ed. 1997. OUP. South Melbourne, Vic.*

**Section 5 – Resources – 5.1 Thinking and teaching strategies****Copyright information**

<http://www.copyright.org.au>

Recount

- Students research to prepare a report for the school newsletter/local newspaper/class competition about the ways in which transport has changed their local area.
- Use the information gathered from the interview to write a fictional autobiography – students put themselves in the time of the person interviewed and write a recount about their life, work and travel in that time.
- Write a fictional story about a journey taken by a young boy or girl in the early 1900s. Students can base their stories on the information collected in their interviews.
- Remember to send a ‘thank you’ letter and a copy of the article or story to the people who were interviewed.

**Section 5 – Resources – 5.3 Text Types****Activity 2.1 MP – Development of the motor car and bicycle**

Create a collage timeline of the development of the motor car, using different materials to ‘build’ the vehicles. Display the completed work in the school foyer or at a local business. Photocopy the activity for each student.

**Section 5 – Resources – 5.2 Development of the motor car and bicycle**



UPPER PRIMARY – 2.1 Learning activities

Mind map

Create a mind map to explore the implications of the development of the motor car on aspects of our lifestyle – business and economy, social, health, leisure, holidays, sport, entertainment.



Section 5 – Resources – 5.1 Thinking and teaching strategies

Timeline

- Copy the timeline 'The development of the motor car and bicycle'. Make a list of motor car companies, research to find out when they began and insert their starting dates in the timeline. Illustrate your extended timeline by locating and inserting pictures of company owners or their most distinctive cars.



AGO website

<http://www.greenhouse.gov.au>



Section 5 – Resources – 5.2 Development of the motor car and bicycle



History of cars:

<http://www.ba-education.demon.co.uk/for/cars/camain.html>
<http://www.baytobirdwood.com.au/events.html>



ICT idea – Search using the Images option

<http://www.google.com>

- On a map of the world mark the countries where the main car companies are based. Students find images of car emblems and use them to illustrate their maps.
- Ask students to create a personal timeline of their lives. Research recent developments in car technology. Incorporate the car facts with their own facts. What does this tell us about inventions?

Debate/exposition

'That all of the developments in car technology are good.'



Section 5 – Resources – 5.1 Thinking and teaching strategies

Research

The development of the motor car has brought with it thousands of occupations – jobs that did not exist before the invention of the car. Brainstorm motor industry jobs and, individually, choose one occupation to research. Students find out what the job entails, what materials are used, who are the industry leaders in their chosen field. If they know someone who works in the motor industry, students could ask them some questions to build their knowledge base on the subject, or invite them to speak to the class.

Mind map

Since the mass production of the Model T Ford, the modifications to motor car design have been endless. From research on the history of the motor car, brainstorm a list of types of modifications, then in groups develop a detailed mind map about one of them, for example, indicator lights, horn, seatbelts, fuel.

**Section 5 – Resources – 5.1 Thinking and teaching strategies****Find-a-Word**

Students create a find-a-word or crossword using key words from the timeline.

Research – Car rally

Care, preservation and restoration of veteran, vintage and classic cars is a popular hobby.

Access information about a car rally in your state:

- When did it start?
- How often is it held?
- Where is it held?
- Who can participate?
- Why are people so keen on old cars?



For example:
Car clubs of Australia

<http://www.carsonline.com.au>

2.2 Four wheels and a motor

TravelSmart Objectives

To consider the impact of the motor vehicle on our lives and to establish that the motor vehicle is a major mode of transport in our society.

TravelSmart Outcomes

Students will be able to:

- discuss the reasons why their family uses the motor car
 - identify advantages of using a motor car over other modes of transport
 - explain why the motor car is a major mode of transport.
-



JUNIOR PRIMARY – 2.2 Learning activities

Design

Ask students to find a picture, take a photo or draw their favourite car. Label all its features, for example, bonnet, front, rear, boot, aerial, headlights.



ICT idea

Use a digital camera, import it to a word processing document, add lines, labels.

Discussion

What does the motor car mean to our society?

Focus questions:

- Think about life without a car – how would you move around?
- What does the car mean to you and your family?
- For what reasons does your family use the car?
- What are some of the advantages of using the car over other modes of travel, such as horse, bicycle, skateboard, scooter?

Concept map

Build a concept map in categories of work, shopping, weekends, holidays, school – develop the ideas of when the car is needed and when it is not.



Section 5 – Resources – 5.1 Thinking and teaching strategies

Design a poster

Ask students to design a poster that shows their family using the motor car for at least four different purposes, things that they could not do if they didn't have a car. Share and compare with other members of the class.

P.M.I. – Plus. Minus. Interesting

Develop a Plus. Minus. Interesting chart with the class, based on themes such as

- What if... cars only had seats for 3 people?
- What if... all cars had 12 seats and were like mini buses?
- What if... cars didn't have lights?
- What if... we couldn't buy petrol any more?
- What if... cars were totally computerised?
- What if... speed limits were restricted to 20km/h in cities and towns?



Section 5 – Resources – 5.1 Thinking and teaching strategies



MIDDLE PRIMARY – 2.2 Learning activities

Discussion

Cars come in all shapes and sizes and accommodate all kinds of passenger groups. Brainstorm a list of different types of motor vehicles, for example, ute, sedan, ‘people mover’, four wheel drive. Choose one type from the list and develop a mind map about its features – what makes it different to other types of motor vehicles, what is its target market, why?



Activity 2.2 MP – Four wheels and a motor

After class discussion ask students to work with a partner to record their thoughts about the motor car. List the ways in which their family uses the motor car and compare their list with that of their partner. Students could rank the uses of the car based on importance and consider how they would do the same activities without a car.

P.M.I. – Plus. Minus. Interesting

The car has broken down and cannot be repaired until next week. Your family has several events to attend during the time you will be without the car, as well as having to go to work and school each day. What will you do?



Section 5 – Resources – 5.3 Text Types

Collage

Create a collage from advertisements for cars and car accessories. The ‘Motoring’ section of newspapers and advertising junk mail are good sources of pictures. Encourage students to develop a theme for their work and use it as a cover for their TravelSmart Log (see Section 2 – 2.1 A changing world – Middle Primary).



UPPER PRIMARY – 2.2 Learning activities

Research

Research recent inventions in the development of the motor car. A hybrid vehicle that has an electric/petrol engine and is economical to drive, has been developed.

Focus questions:

- What does hybrid mean?
- How does a hybrid engine work?
- Is it any better for the environment?
- Does it perform as well as other types of engines?
- In what ways is it different? types of engines?
- In what ways is it different?



Using keywords, locate a web site that provides information about hybrid vehicles.

Electric cars

Refer to Section 5 Resources 5.2 The Development of the Motor Car and Bicycle, and make a timeline of the development of electric cars. Access websites to research more developments in electric car technology and add the information to your timeline.



ICT idea – Plan a lesson which teaches students about keyword searching to extend their skills in successful use of the Internet.



CARisma

<http://www.transport.sa.gov.au/educational/schools/carisma>



Section 5 – Resources – 5.2 The Development of the motor car and bicycle

Design

Students brainstorm all the features of a car and, using a drawing software program, create a car with all the features that they think are important on a motor vehicle.

They could make models from their designs and present them to the class as a car salesperson would, outlining special features to entice potential buyers.



ICT idea – Film students presentations on video as advertisements

Investigation

Divide the class into car make groups.

Each group has several tasks:

- Collect information about their motor car company – when it began, which country it is based in, what models of cars it produces. Students may write to, phone or visit car dealers to ask for information and brochures. Car companies also have comprehensive websites to access.
- Groups choose vehicles of similar size and investigate engine capacity, exterior and interior dimensions, safety features and accessories. Findings can be recorded on a chart for comparison and to decide which is the best vehicle to buy.
- Develop a persuasive argument to convince a family member that they should purchase the chosen vehicle.



Section 5 – Resources – 5.3 Text Types



CARisma

<http://www.transport.sa.gov.au/educational/schools/carisma>

Name: _____

Activity 2.2 MP – Four wheels and a motor



1. LIST the different reasons why you and your family use the motor car.

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____
7. _____
8. _____
9. _____
10. _____



2. COMPARE your list with your partner. Are they the same? What differences are there?

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____
7. _____
8. _____
9. _____
10. _____



3. RANK your combined list from the most important use to the least important use of the motor vehicle.

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____
7. _____
8. _____
9. _____
10. _____



4. THINK about how you would do the same things if you did not have a car.

Beside your list write down the alternative travel and transport methods you and your family would use, for example:

| Car Use | Alternative Travel |
|-------------------|--------------------|
| Parent's work | Bus |
| Going to Football | Walk, Train |

Your list:

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____



2.3 Keeping a travel diary

 **Objectives**

To consider the current impacts of the motor vehicle and to make predictions regarding future consequences if car usage continues to increase; to learn about current personal travel trends by keeping a travel diary.

To learn, through investigation, how much we depend on the motor car for transport.

 **Outcomes**

Students will be able to:

- interpret information displayed in table format
 - predict trends for future car ownership based on current information
 - give reasons for Australia's high rate of car ownership
 - understand why people keep diaries
 - understand how to fill in a travel diary.
-



JUNIOR PRIMARY – 2.3 Learning activities

Class discussion

Ask students to consider why we keep diaries. For example, some types of diaries are for homework, birthdays, anniversaries, special events, appointments.

- What is a diary?
- Why do people keep diaries?
- What sorts of things are important to write in diaries?
- Why are some diaries kept secret?



Activity 2.3 JP – Travel diary

Introduce the concept of a travel diary to record the ways that students travel every day. Students could either complete it at school each morning for a week or take it home for completion with their families.

Travel means all movement outside the home. Students will need to fill in a separate line for each part of the same trip.

- walk to the bus = one line
- bus to school = one line

Discussion

From findings of the sample travel diary pages, discuss why the car is the most used form of travel.



Activity 2.3 JP – Our travel habits

From their travel diaries, students collate the information about how often they have used various modes of transport during the last week. For most students, the number of car trips will be significantly higher than the other modes. By recording their travel it is easier for students to identify the need for positive change. In groups, students discuss and compare the results. Record the totals on a class chart.

Brainstorm

Brainstorm a list of suggestions for reducing car trips. Discuss any of the suggestions that would be relevant to students' families and encourage children to take suggestions home for discussion with their parents or care givers. Did they actually use any of the suggestions?

Students could report back to the class during their morning talk time each day.



Section 5 – Resources – 5.1 Thinking and teaching strategies



MIDDLE PRIMARY – 2.3 Learning activities



Activity 2.3 MP – Diary time (2 pages)

Introduce the sample diary page and show how it has been completed. Students can record the travel they completed yesterday on the practice diary page.

Class discussion

Ask students to think about what transport modes they have used in the last week.

They will need to remember when they have been a passenger, used public transport, cycled, walked or even ridden their skateboard or scooter.

Focus questions:

- What transport modes did you use most often?
- Why was this the most popular?
- Were all of the trips necessary?
- Could some of the trips have been made in other ways, at other times?
- Which transport modes helped you to keep fit?
- Where did you travel?
- Why is it a good idea to use transport modes other than the motor car?
For example, saves money, less congestion on the roads, better for our health, encourages interaction with other community members, creates less greenhouse gas emissions.
- Describe a trip you made when you could have cycled, walked or caught public transport instead of taking the car?
- Why is it good to keep a record of how we travel? For example, it raises awareness and helps us to plan for alternative transport options in the future.



Section 5 – Resources – 5.3 Text types



Activity 2.3 MP – Cars, cars and more cars (2 pages)

Complete the Activity.

Discuss with students the meaning of car ownership in Australia. Analyse the table of car ownership statistics. Create a graph using the statistics provided.

Discuss:

- Is the number of cars registered per 1000 people increasing or decreasing?
- Can you think of any reasons for this?
- Why is this of concern?



Activity 2.3 MP – Our travel habits (2 pages)

Students are asked to think about and record the amount of time they spend in the car per week and the approximate number of trips they make using a variety of transport modes. Ask students to compare their lists in small groups, noting similarities



Activity 2.3 MP – Travel options

Students are given a number of travel options that could help to reduce their family car trips and are asked to make a decision as to whether or not they think these are options for their family. After completing this activity ask students to rate the options from most to least likely and explain why.



UPPER PRIMARY – 2.3 Learning activities

Research

Vehicle ownership in Australia is recorded by the Australian Bureau of Statistics. Students can search for Australian car registrations by accessing the Bureau of Statistics web page and following the search path.



Australian Bureau of Statistics

<http://www.abs.gov.au>

> Statistics > scroll down to Main Features > Transport Services > Survey of Motor Vehicle Use, Australia
and

> Statistics > Main Features > Transport Services > Motor Vehicle Registrations > Motor Vehicle Census

Build a table of motor vehicle registrations in Australia. What is the research telling you?

Focus questions:

- Is the number of registered cars increasing?
- Why do you think this is so?
- Why is this of concern?

Research

What is the vehicle ownership in other countries compared to Australia? To understand the statistics, students will need to:

- locate the countries on a map of the world
- compare the size of each country with that of Australia
- compare the country's population with that of Australia
- search the Internet for vehicle ownership statistics of other countries.



For example, European Union

http://themes.eea.eu.int/Sectors_and_activities/transport/indicators/spatial/transport/Vehicle_ownership_TERM_2001.doc.pdf

Debate/exposition

Organise a class debate on the topic:

'That Australians own too many cars.'



Section 5 – Resources – 5.1 Thinking and teaching strategies

Survey

Students organise a survey to ascertain transport modes of students in their class and in other sections of the school. Collate the data and show results as a graph.

Class discussion

After completing the survey, discuss the following focus questions:

- What transport modes were most popular? Why?
- What transport modes were least popular? Why?

For students who used the bike or walking as popular travel options, how did they plan for these activities?

- What do they see as the benefits of using these transport modes?
- Why is it important to think about the viability of changing a transport mode?
- Why is it important that any changes made are sustainable?

Students should be encouraged to understand that having travel options allows us to make decisions about what suits us best. Thinking about our travel habits and planning in advance means that we can make practical decisions that are beneficial to the environment, our health and the community.

Write a travel procedure

Students write a travel plan for a week. They will need to outline the mode of transport and number of passengers and concentrate on using efficient travel techniques such as trip chaining (see glossary) and other transport modes they have found in the Glossary. Add all transport modes to their own TravelSmart Log.

Compare their plans with a small group. Write a persuasive letter to their family outlining their plan for the week's travel.



Section 5 – Resources – 5.3 Text Types
Section 5 – Resources – 5.4 Glossary

Travel diary

Through class discussion develop the concept of needing a reason to collect information.

Introduce and discuss with students the concept of a travel diary. Why is it a good idea? What is its purpose?

Students design their own travel diary page. What information is needed? What facts have an impact on travel?



ICT idea

Students design pages in table format, print and compile their own travel diary.

Name: _____

Activity 2.3 JP – Our travel habits



1. Record the transport modes you have used this week.

| | | total |
|---|--|-------|
|  walk | | |
|  bike | | |
|  bus | | |
|  car | | |
|  train | | |
|  other | | |



2. Following are some ideas you could use to reduce the number of car trips you and your family make.

- walk – (less air pollution; makes you fitter)
- ride a bike for short trips
- car pool – (sharing a ride with others)
- combine trips – (using one car journey to do several things)
- make a shopping list – (avoids extra trips to get something that was forgotten).

Describe two ways in which you could help your family reduce car trips.

- _____

- _____

Name: _____

Activity 2.3 MP – Diary time



1. Have a look at the example overleaf showing how to record your travel. You will need to know:

- where you started a trip
- the time you left
- where you went
- what time you arrived.



Remember that travel means all movement outside the home.
For example, walk to the bus = one trip; bus to school = one trip.

How to use your TravelSmart Diary Example Page

Where:

Where did you travel to?
Record where you went.
You don't need to write an address, only the name of the place

First Travel Day
Day Tuesday
Date 04 / 12

| WHERE | MODE | | | | | | TIME |
|--|----------|----------|---|----------|---|---|--|
| | D | P | W | T | B | O | |
| I began the day at: <u>Home</u> | | | | | | | I left at: <u>8:00 am/pm</u> |
| I went to: <u>Work</u> | ✓ | | | | | | I arrived at: <u>8:30 am/pm</u> I left at: <u>12:00 am/pm</u> |
| Then I went to: <u>Shop</u> | ✓ | | | | | | I arrived at: <u>12:30 am/pm</u> I left at: <u>1:00 am/pm</u> |
| Then I went to: <u>Home</u> | ✓ | | | | | | I arrived at: <u>1:15 am/pm</u> I left at: <u>3:30 am/pm</u> |
| Then I went to: <u>School</u> | | | | ✓ | | | I arrived at: <u>3:15 am/pm</u> I left at: <u>3:20 am/pm</u> |
| Then I went to: <u>Home</u> | | | | ✓ | | | I arrived at: <u>3:35 am/pm</u> I left at: <u>7:00 am/pm</u> |
| Then I went to: <u>Netball (YMCA)</u> | | ✓ | | | | | I arrived at: <u>7:15 am/pm</u> I left at: <u>8:30 am/pm</u> |
| Then I went to: <u>Home</u> | | ✓ | | | | | I arrived at: <u>8:45 am/pm</u> I left at: <u> : am/pm</u> |
| Then I went to: | | | | | | | I arrived at: <u> : am/pm</u> I left at: <u> : am/pm</u> |
| TOTAL | 3 | 2 | | 2 | | | |

Mode:

Put a tick in the column to show how you travelled

Total:

Add up the columns to total the modes you used for the day



2. Now turn the page and fill in the practice diary.
Record yesterday's activities or use your imagination.

Name: _____

Activity 2.3 MP – Diary time (continued)

First Travel Day

Day _____

Date ____ / ____

MODES

Car Driver *D* Bus/Train/Tram *T*
 Car Passenger *P* Walk *W*
 Bicycle *B* Other *O*

| WHERE | MODE | | | | | | TIME | |
|---------------------|------|---|---|---|---|---|--------------------------------|-----------------------------|
| | D | P | W | T | B | O | | |
| I began the day at: | | | | | | | | I left at: __ : __ am/pm |
| I went to: | | | | | | | I arrived at: __ : __ am/pm | I left at: __ : __ am/pm |
| Then I went to: | | | | | | | I arrived at: __ : __ am/pm | I left at: __ : __ am/pm |
| Then I went to: | | | | | | | I arrived at: __ : __ am/pm | I left at: __ : __ am/pm |
| Then I went to: | | | | | | | I arrived at: __ : __ am/pm | I left at: __ : __ am/pm |
| Then I went to: | | | | | | | I arrived at: __ : __ am/pm | I left at: __ : __ am/pm |
| Then I went to: | | | | | | | I arrived at: __ : __ am/pm | I left at: __ : __ am/pm |
| Then I went to: | | | | | | | I arrived at: __ : __ am/pm | I left at: __ : __ am/pm |
| Then I went to: | | | | | | | I arrived at: __ : __ am/pm | I left at: __ : __ am/pm |
| TOTAL | | | | | | | | |

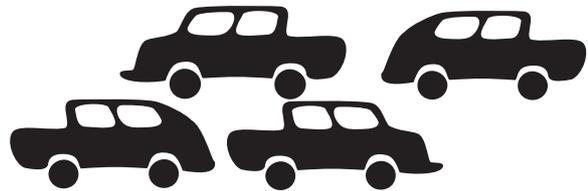
Activity 2.3 MP – Cars, cars and more cars

Some countries have not been able to manage the increase in the number of cars they have.



- Look at the following table which shows the number of cars (excluding motor cycles, tractors, plant and equipment, caravans, trailers) registered per 1000 of population as at 30 October in the odd years 1991 – 2001.

| Year | Motor vehicles |
|------|--|
| 1991 | 582 |
| 1993 | 595 |
| 1995 | 606 |
| 1997 | 630 |
| 1999 | 647 |
| 2001 | 645 <small>(as at 31 March 2002)</small> |



Source: ABS, Year Book Australia 2003



- Now answer the following questions.

- Has the number of cars increased or decreased?

- By what amount have cars increased between 1991 and 2001?

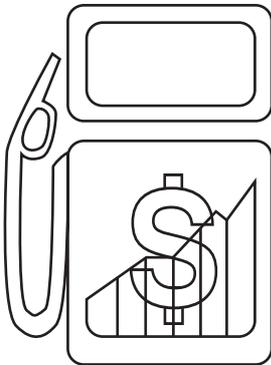
- If this trend continues, what does this mean for the future? Write a short paragraph on your predictions.

Name: _____

Activity 2.3 MP – Cars, cars and more cars (continued)



3. Brainstorm reasons why Australia has high car ownership. By knowing about our travel habits, we can do something to help reduce the use of the car.

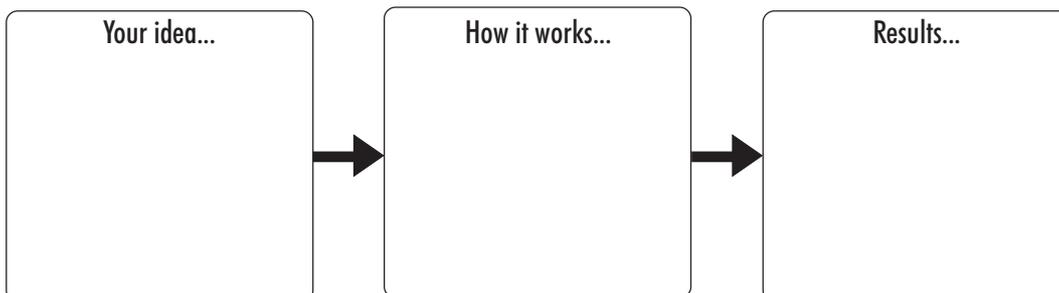


In some countries where the problem has become very large, governments have been forced to do things like:

- banning cars on certain days
- increasing prices so that many people cannot afford a car
- varying work hours.



4. Complete the cause and effect flow diagram with an idea for reducing car usage..



Name: _____

Activity 2.3 MP – Our travel habits

Being TravelSmart means being aware of travel options. By using the car a bit less, you will gain benefits like:

- having more time
- being fitter
- saving money.

Options allow you to make a decision about what suits you best.



1. Estimate how long you think you spend in the car in one week?

- Less than 4 hours
- 4 hours
- 6 hours
- 8 hours
- More

Tick one box



2. Estimate how many trips you make each day/each week.

| Mode of travel | per day | per week |
|----------------|---------|----------|
| By car | | |
| On a bike | | |
| Walking | | |
| On a bus/train | | |
| Other | | |



Name: _____

Activity 2.3 MP – Our travel habits (continued)



3. Work out an average for your number of trips.

For example: 30 car trips per week x 7 days = 4.2 trips average.

My average

Car trips: _____

Bike trips: _____

Walk trips: _____

Bus trips: _____

Train trips: _____



Activity 2.3 MP – Travel options



1. Think about whether your travel varies from day to day. For example, do you take more or less trips on the weekend? Write a short sentence to explain this.



2. Following are some ideas you could use to reduce the number of trips you make. Tick the suggestions that you (or your family) could do more:

- | | |
|--|---|
| <input type="checkbox"/> Walk more | <input type="checkbox"/> Ride a bike for short trips |
| <ul style="list-style-type: none"> • less air pollution • improved fitness • sometimes it's quicker than you think. | <ul style="list-style-type: none"> <input type="checkbox"/> Pool to school • share ride with others • less road congestion. |
| <input type="checkbox"/> Planning our trips (using one car journey to do several things) | <input type="checkbox"/> Ride a bike for short trips |
| <ul style="list-style-type: none"> • saves time • reduces use of car. | <ul style="list-style-type: none"> <input type="checkbox"/> Use a shopping list • avoids extra trip to get something that was forgotten • saves time and reduces frustration. |
| <input type="checkbox"/> Sometimes use a bus | <input type="checkbox"/> Bank from home |
| <ul style="list-style-type: none"> • able to read more • able to sleep more. | <ul style="list-style-type: none"> • saves time • saves a car trip. |

Think about the suggestions you ticked.



3. Make a list ranking in order those things you could do to travel smarter.

I am going to travel smarter by:

2.4 How we come to school

TravelSmart Objectives

To investigate and record different ways in which children travel to school and to investigate alternatives to their current travel habits.

TravelSmart Outcomes

Students will be able to:

- collect data for interpretation
 - interpret class survey results to establish travel patterns
 - discuss factors that influence travel choice
 - identify symbols used in a street directory
 - identify safest and shortest walking route to and from school
 - understand that planning travel encourages a reduction in car trips which, in turn, reduces greenhouse gas emissions.
-



JUNIOR PRIMARY – 2.4 Learning Activities



Activity 2.4 JP – Survey – How we come to school

This activity could be done as a whole class exercise. Using the table provided, students each record how they travelled to school. The activity also asks students to think about what factors influence transport modes choice.

Class discussion

Discuss with students the results of the data they have collected. Focus questions:

- What were the most popular transport modes?
- What were the least popular transport modes?
- What are some reasons for this?
- What sort of things will decide how we travel to school?
- Is there anything that could happen at school to make it easier for families and students to walk, ride or catch public transport to school?
- What travel options are available in the local area for travel to school?

Display

Design a class display of the data results. Include a graph of the survey, information on factors influencing travel, information regarding local travel options and ideas for creating possibilities for using alternative transport modes. Ask students to write a letter to their families inviting them to come and view the display.



ICT idea

Enter data results into a spreadsheet and graph the results.



Activity 2.4 JP – Key to street map features

Design and photocopy a simple map of the local area which includes most streets that children use to travel to school. Name some streets, mark in traffic lights, crossings, special road features.

Use Activity 2.4 JP – Key to street map features, to mark other places on the map.

Ask students to find and mark some familiar places. Introduce the concept of a 'bird's eye view' and 'as the crow flies'.

Mapping

Ask students to mark the best walking route from home to school, or to plan a car journey that will reduce the distance travelled. In 'locality' groups, students compare their journeys.

Do any of the planned travel routes look similar? If so, would it be possible to walk together? For students who have planned a car journey, discuss how they could make this more efficient.

'walking school bus'

Some schools have organised a program that enables students to walk to school with others in the care of responsible adults.

Find out if your school has a similar program. Encourage students to research how a 'walking school bus' works.



MIDDLE PRIMARY – 2.4 Learning Activities

Class discussion

Discuss the reasons why different families make different travel choices.

Focus questions:

- What factors influence travel choice?
- What travel options are available locally to you and your family?
- What can be done to persuade people to choose a transport mode that is better for their health or the environment?
- How might we (the community) reward people for using cars less often?
Remember that rewards do not need to be money.



Activity 2.4 MP – Survey – how we come to school

Students complete a survey to collect information from a target group in the school about modes of travel to school and the reasons why certain modes of travel are used. Create a graph to show the results. Discuss how to extend this research by making predictions, determining how to gather evidence to support or prove their predictions, and presenting a report of findings.

If students participated in a similar survey when they were in a Junior Primary class, it would be interesting to compare results and discuss reasons for changes that may have occurred.

Questionnaire

Design a 'tick box' questionnaire asking car travellers why they travel that way. Add some more options to this example.

I travel by car because

- **it rains too often to walk**
- **we usually run late so we have to drive to get there on time**
- **walking means crossing several busy roads**

Choose a target group (or groups) to complete your questionnaire. A representative group can be up to 10 people, or you could choose to ask people in different groups, for example, teachers, friends, students in Upper Primary or Junior Primary classes, people who are members of a community group that you belong to.

Using the information collected during your questionnaire, write and deliver a short talk outlining your findings.

Design

Design a poster or pamphlet which outlines a reward system for students who travel to school by alternative modes.

Design a storyboard for a print or TV advertisement, depicting factors that affect travel choice, the changes that can be made and their benefits.

Research

Find a song or poem that discusses the issue of travel choice and the effects on the environment and on our health. Students could select the best TravelSmart song and perform it as a class group.



UPPER PRIMARY – 2.4 Learning Activities

Street Directories and Public Transport Timetables

Using photocopies from the local street directory, ask students to plan travel to a destination in their town or city. Access the relevant bus and train timetables, either in hard copy or on the Internet, and research which service to travel on, where the closest bus stop or train station is, when they should be there, how long it will take to travel to their destination. Remind them to plan their return travel as well. If the travel has to include use of the motor car, remember to plan where it will be parked.

Plan travel across suburbs to:

- the beach
- a friend's or relative's home
- an adventure park
- a movie theatre
- the city centre

Survey

Who has never travelled by bus? In conjunction with the classroom program, students plan an excursion which includes bus travel using the local bus service. Discuss the types of tickets available, how much they cost, the 'rules' of bus travel; for example, consideration for disabled and elderly people, reasonable behaviour, all body parts inside the bus at all times, how to indicate your destination stop.

Mapping

Map reading requires the understanding of several symbols. They are contained within a key/legend. Map reading also requires an understanding of scale.

- directional compass
- traffic lights
- church
- river
- council boundaries
- suburb boundaries
- schools.

Students create a map of the area surrounding the school, including at least ten streets. Add all the features and symbols that they would find on a commercially produced street map.

Students create their own town, including all the features that they think are important.

Try to make the town environmentally sustainable by providing less roads and more travel alternatives; for example, bicycle tracks, walking tracks, parks and gardens.

Name: _____

Activity 2.4 JP – Survey – How we come to school



1. Using the table below, survey other students about how they travel to school and tally your findings for a total in each category.

| | | total |
|--|--|-------|
|  walk | | |
|  bike | | |
|  bus | | |
|  car | | |
|  train | | |
|  other | | |



2. What was the most popular mode of transport?

Name: _____

Activity 2.4 JP – Survey – How we come to school (continued)



3. How did you travel to school?



4. Why do people come to school in different ways?

Write down three reasons.

- ---

- ---

- ---



Name: _____

Activity 2.4 JP – Key to street map features

Activity key



School – Public



Telephone



Church



Boat Ramp



Toilets



Picnic Area



Playground



Police Station



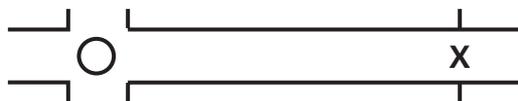
Library



Shopping Centre



Main Road



Roundabout and Level Crossing



Railway Line with Station
(distance from main city station)



Walking Track, Cycleway and Horse Track

2.5 Parking it

TravelSmart **Objectives**
Australia

To understand that cars take up a lot of space – when travelling and when parked.

TravelSmart **Outcomes**
Australia

Students will be able to:

- investigate and determine the average parking space a car occupies
 - list and discuss the impact of increasing the number of car parking spaces in regard to the environment and community behaviour
 - give examples of travel options that reduce our dependence on the car, which in turn reduces the need for car parking spaces.
-



JUNIOR PRIMARY – 2.5 Learning Activities

Garages

If you've got a car you need a place to park it. Garages or car parking spaces take up a lot of area on a house block.

Ask students to measure the size of the garage or car park space at their home.

Ask them to think about how they could make the area more attractive. Could they plant trees around it or have hanging baskets along one of the sides? What could they do with the space if the car didn't need it?

Discussion

What would be good and what would be bad if we were not allowed to have car space at our homes?

Design

Lots of garages are used for more than just parking the car. They can also be a workshop, a storage area with cupboards and shelving, a place to keep gardening implements.

Some people even have a comfortable chair in the garage for a quiet place to sit.

Ask students to plan the sort of garage they would like to have at their home – think about the space needed for the car, the extra space needed for their ideas and how they would make the building look attractive.



MIDDLE PRIMARY – 2.5 Learning Activities

Class discussion

Discuss with students their experiences in regard to parking. Have they ever been a passenger in a car with a driver who has become annoyed or angry at not being able to find a car park? Why aren't there enough places for everybody to park their cars?

Focus questions:

- A third of our city space is taken up with roads, car parks and driveways. How does this impact on the way people use the space? For example, less space for recreation, streets are unsafe and congested, less space for dwellings and community centres, more money is spent on transport and moving around.
- If we have less space for trees that soak up carbon dioxide, how will this affect the balance of gases in our environment?
- What sort of things could we do to decrease the area taken up by car parking?
- By planning for our travel and using travel alternatives such as car pooling and public transport, we can reduce the number of car parking spaces needed. List all of the ways in which we could reduce the need for more car parking spaces and brainstorm how we could use some of the space to promote well being in the local neighbourhood. For example, if we shop at a location within walking distance – we don't have to use the car, there is no need for a parking space. If enough people did this, trees could be planted to make the shopping environment more attractive.



Activity 2.5 MP – Parking it

Following directions in the Activity, students measure the parking dimensions of a car, including a passenger exit allowance and the distance between parked cars. In order to determine how much space the average car takes up, students are asked to measure a variety of cars and calculate an average.

Research

How big is a bus? Students calculate the space taken to park a bus. Would we need as many parking spaces? How would the 'passenger – vehicle' ratio compare?

Consider these questions, using knowledge gained to measure the area a car occupies while parked. Calculate the area for a bus. Write a brief report examining the difference in average parking area required between buses and cars and if this is an advantage or a disadvantage in terms of reducing car parking spaces.



Section 5 – Resources – 5.3 Text Types

Car parks

Many of the world's cities have huge multi storey car parks so that people can drive to work, park their car all day and then drive home again. It's like having two garages for each car. On a class excursion to the city, inspect a multi storey car park. Make an appointment to ask the manager of the car park some questions.

Focus questions:

- How many car parking spaces does it have?
- Is it full every day?

- How much does it cost to park for a day?
- Are there any facilities for managing the air pollution from car exhausts?
- If not, what happens to the exhaust smoke?
- Does anyone care about this?

Calculate how much money is generated by the car park in a day / week / month / year.

Have a good look at the car park. Is it attractive? Compare it with surrounding buildings. What do you think of the car park as part of the cityscape?

Class discussion

Many people drive to work because they think it is the only way to get there. Brainstorm other ways in which people can travel to work. List the advantages and disadvantages of each mode of transport, considering the time it takes, the cost, safety and shelter, convenience, implications for people with disabilities, ease of carrying a bag full of books or a laptop.

Big Yellow Taxi

Access the lyrics of 'Big Yellow Taxi' on the Internet. What is the message? Prepare an item for an assembly – perform the song – karaoke style – and explain what it means.

A small red square icon with the white text 'www' inside.

<http://www.lyricsdomain.com/lyrics/22267/>



UPPER PRIMARY – 2.5 Learning Activities

Concept map

There are cities around the world where car transport is not allowed in the Central Business District (CBD). Only public transport vehicles are permitted in the city centre. With the class, develop a concept map of the implications of a 'car free' CBD environment.



Section 5 – Resources – 5.1 Thinking and teaching strategies

Design

Using the ideas from class discussion, students develop a design for a 'car free' city centre. Make a list of specifications, including types of public transport and their requirements, number of people who move in and out of the city for work each day, ways to access accommodation and recreation, entertainment and education venues.

Design a vehicle that uses minimum space for parking, for example, a 'bubble car'. Suggest ways in which your vehicle could be parked and estimate how many could be parked in conventional car parking spaces.

Activity 2.5 MP – Parking it

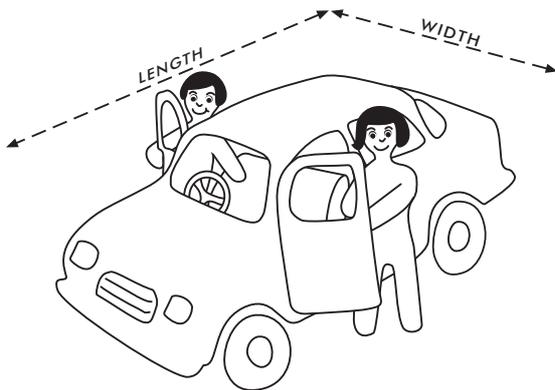
Have you been in a car when the driver has become angry when trying to find a car park?

Sometimes their annoyance can be understood. There aren't enough places for everybody to park their cars. About thirty per cent of the surface area of many Australian cities and towns is made up of driveways, roads and car parks.

That's nearly a third of the area of a town, which means there is a third less space for trees. Trees soak up carbon dioxide and make our environment green.



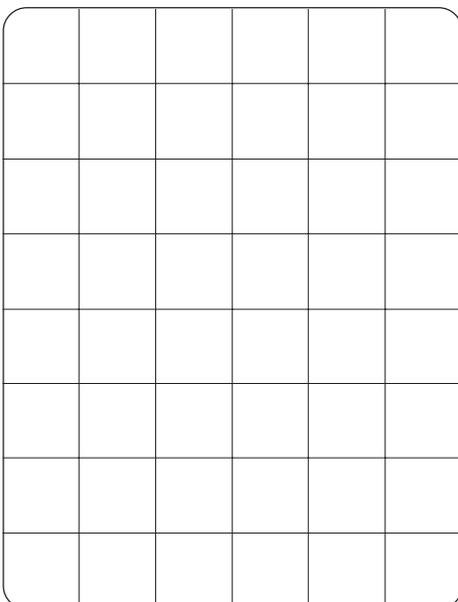
1. Let's find out how much area an average car takes up to park.



- Measure the length and width of a car.
- Include the space required for people to safely exit and enter the vehicle.
- Call each metre one centimetre and draw the size of the car on the grid.
- Multiply the length by the width to get the area. For example, the car was $4 \times 2 = 8\text{m}^2$.

Answer: _____

- Allow for any area required between parked cars.
- Measure a range of car sizes.
- Add all the car areas together and divide by the number of cars to find the average.



Brainstorm ways in which car parking space can be decreased.

2.6 The spread of cities

TravelSmart Objectives Australia

To examine the layout of cities and how this relates to travel options and to reinforce the idea that transport choices are based on need, distance and convenience.

TravelSmart Outcomes Australia

Students will be able to:

- make decisions about appropriate travel, based on city types
 - demonstrate a basic understanding that urban design influences travel behaviour
 - list and discuss elements of city design which are conducive to positive travel behaviours such as walking, cycling and usage of public transport.
-

Learning activities for Middle and Upper Primary only



MIDDLE PRIMARY – 2.6 Learning Activities

Brainstorm

How often have you visited the centre of a city – the Central Business District? What are the things you saw that made it different to other parts of the city or the town where you live? Sort your brainstorm into 'good' and 'not good' sections. Would you like to live in the middle of the city? Think about the 'good' and 'not good' aspects of inner city life.



Section 5 – Resources – 5.1 Thinking and teaching strategies

Excursion

Plan an excursion to a city centre. Record types of transport, homes, business buildings, car parks that you see.



ICT idea

Use a digital camera to record good and bad examples of buildings, transport, safety issues in the CBD. Display photographs with comments.

Class discussion

Look at a map of your suburb or town. Where do the main roads go to? Are there several shopping centres or only one? Are all the community facilities in one place or are they scattered throughout the area? What effect does this have on transport choices and how you get to places in your community?



UPPER PRIMARY – 2.6 Learning Activities

Activity 2.6 UP – The spread of cities

Decode the three city maps using the key. What sort of transport options would be appropriate for each city?

Discuss the concept that the car has been one of the reasons for city expansion because everything is accessible by car. As a result, travel and commercial needs have emerged as a priority and are constantly being addressed as car ownership increases.

Access maps of cities around the world and describe the city shapes. What are the advantages of each type of city? What are the disadvantages? Create a display of cities with summaries of the findings you have made.



For example,

<http://www.google.com> > Images > map Sydney

Class discussion

Discuss with students:

- the changing needs of cities
- what has made the expansion possible
- the resultant need for public transport and local centres for shopping and recreation
- the advantages of different city types and how this relates to travel choice and the environment.

Focus questions:

- Which city type is the best design for walking? For public transport? For cycling?
- If you were to design an 'environmentally friendly' city, what properties would you include? For example, allowance for grouped housing where walking is a viable choice, public transport from housing to commerce and industry as part of the infrastructure, bike tracks, bike racks and security.

Design

Think about what you have learnt about city design. Using this knowledge, design a city that would encourage its inhabitants to use alternative modes of travel. Brainstorm with a friend what sorts of things you would need to include. Add a legend or key that explains the different parts of your city design.

Name: _____

Activity 2.6 UP – The spread of cities



1. The three shapes below represent different types of cities. Look carefully at the legend/key of each map and determine whether the shape represents:

- a) walking city (W)
- b) public transport city (PT)
- c) car city (C)

Beside each shape tick the appropriate letter and explain the reason for your choice.

W PT C

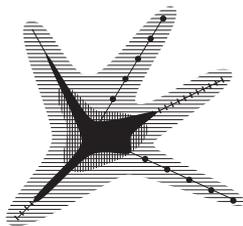
W PT C

W PT C

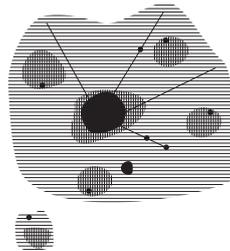
LEGEND/KEY

- Commerce
- Industry
- Housing
- Railway
- Tram

CITY A



CITY B



CITY C



2. Use the words in the word bank to complete the sentences :

As _____ became more common the _____ shaped city with its houses following the tram and _____ routes changed.

The car allowed cities to expand. The result of this was a need for more _____ centres, super _____ , service _____ and public _____ .

WORD BANK

star, cars, train, transport, shopping, stations, markets.



3. Which of the three shapes best describes Adelaide as a city type?

A B C



4. Think of the advantages that each type of city could have. Choose one and note down the advantages. Give a reason for your choice.
