

Resource activities contents

Section 4 – Being TravelSmart

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4.1 Transport options

TravelSmart Objectives

To recognise that there are advantages and disadvantages to our dependence on the motor car as a mode of travel and to understand that a balance of transport modes has a beneficial impact on individuals, communities and the environment.

TravelSmart Outcomes

Students will be able to:

- describe the advantages of different modes of travel
 - appreciate that factors such as cost, distance, purpose, weather and availability will influence choice
 - recognise the disadvantages to health, environment and community of using the motor car as a sole mode of transport and discuss how usage can be reduced
 - question the convenience, personal satisfaction, viability, efficiency, time and resources relating to travel behaviour change
 - evaluate transport options by using set questioning techniques.
-



JUNIOR PRIMARY – 4.1 Learning Activities

Brainstorm / Concept map

Being TravelSmart means that we can make choices about the types of transport we use.

Focus questions:

- What are some of the things we need to consider when planning how to travel? Use a 'How, When, Where, Who, What, Why, Why not?' structure for questions and ideas.
- What are some of the places you walk to in your local area?
- What are some of the places you cycle to?
- What are some of the places you drive to?
- What are some the places you go to using public transport?



Section 5 – Resources – 5.1 Thinking and teaching strategies

Discussion

Discuss with students why we should be trying to reduce our car usage.

Focus questions:

- What are the negative aspects of car travel?
- How do these impact on us personally and as members of a community?
- What are some of the things we can do to reduce our car usage?
- Are these good ideas?
- How can we make them happen?

Discuss the viability of the suggestions and the practicalities of putting them into action.

Concept map – What are the options?

Students explore the options for travel, discussing other modes of transport as well as smarter ways of using the motor car.

Some options are:

- | | |
|---------|---------------------------------|
| • bus | • walk |
| • tram | • cycle |
| • train | • car sharing or taxi |
| • ferry | • voluntary taxi (see Glossary) |

There are more options to explore. Extend this concept map by considering the plus, minus and interesting aspects of each option.



Section 5 – Resources – 5.1 Thinking and teaching strategies

Design

Students discuss ideas for presentation of their understanding of transport options and design and create a display to advertise the theme – 'We're a TravelSmart class'.



MIDDLE PRIMARY – 4.1 Learning Activities



Activity 4.1 MP – Transport options

Revise the advantages of the motor vehicle and consider some disadvantages; for example, greenhouse gas emissions, reduction in physical activity, cost of fuel and maintenance, traffic congestion.

Focus questions:

- What are some other ways to travel? (these are referred to as transport options or travel alternatives).
- Which transport options would be good for the environment, and why?
- What kinds of travel help to keep us fit?
- How could some of the transport options be good for our environment?

For example; catching a bus means less traffic in the local area. This creates a safer environment for walking and lessens greenhouse gas emissions.

Students complete the Activity, listing alternative modes of transport, their advantages and scenarios when these alternative modes could be used.

Concept map

Explore the importance of using alternative transport modes.

Focus facts:

- Walking, cycling and using public transport are good for the environment because they create little or no greenhouse gas emissions.
- Walking and cycling are good for our health and provide opportunities for community interaction.
- Using transport alternatives means less road congestion.
- Using transport alternatives means that we are using less non-renewable fuels.
- Streets are safer.



Section 5 – Resources – 5.1 Thinking and teaching strategies



Activity 4.1 MP – Transport modes

Students read the map and decide what transport mode could be used reach the listed destinations. The route to each destination is coloured according to the transport mode chosen.

Students should consider why Joel might be travelling to the destination and, using the scale provided, calculate the distance of the journey before deciding which mode is the best option.

Personal travel plans

Students could estimate the distance from their homes to three different destinations.

If possible, ask an adult to help check their estimates. After the estimate is checked, describe how the trip to each destination would be completed and give reasons for the choice of transport mode. Personal travel plans could be presented as a piece of procedural writing or as a recount.



Section 5 – Resources – 5.3 Text types



Activity 4.1 MP – Win-win?

Students complete the table of disadvantages of motor car usage in relation to individuals and communities and make suggestions on how to reduce family use of the car.

Design

Design a pamphlet outlining some of the negative aspects of motor car usage and the impact these aspects have on individuals and communities. Include a list of suggestions for reducing dependency on the car. Display these pamphlets in the school and community and share them with family members.



Activity 4.1 MP – Find-a-word

Students complete the Find-a-word. The remaining letters spell out an important message. (Answer: Make a difference – TravelSmart!)

TravelSmart Log

Students discuss and define transport option terms such as car pooling, ride sharing, travel blending and trip chaining.



UPPER PRIMARY – 4.1 Learning Activities



Activity 4.1 UP – Travel and transport alternatives

Students list and discuss the various advantages of alternative transport modes and share experiences they have had when using them.

Focus questions:

- Where did they travel?
- What was good about it?
- How did the cost compare?

Students complete the Activity, listing alternative modes of transport and recording advantages and possible scenarios when their family would be most likely to use them. Ask students to compare their list with a partner.



Activity 4.1 UP – How far is that?

Students work with partners to estimate the dimensions of items in the school and then to measure the actual length and width of each item, using appropriate measurement tools. Discuss results with the class.

Focus questions:

- Did your estimate and actual measurement vary greatly?
- Which measurements were most accurate?
- What sorts of measurements did you take – millimetres, centimetres, metres?
- If you were planning a trip, what factors would need to be considered when choosing a mode of transport?
- What would be the most popular unit of measurement for a trip taken by car, bus or train?
- What information on a map helps us to calculate the distance?

Working in pairs, students read and complete the second part of the Activity.

Planning a trip

Using a street directory, calculate the approximate distance of a trip to five different destinations. Students will need to locate the scale on a map to calculate the distance in real terms.

After each calculation, decide on what mode of transport would be most appropriate and give reasons. Remember to try to use alternative modes of transport to the car.



Activity 4.1 UP – Decision making

Working in small groups, students are asked to read the solutions box. Using the 'Will it' questioning grid, students are given questions to help evaluate the solutions. Students will need to identify the positives and negatives and use this information to make a decision on a rating of 1, 2 or 3.

- 1 = best solution
- 2 = next best solution
- 3 = least possible solution

Students will need to record their rating in the box provided. After rating all the solutions, students are asked to pick the best possible solution out of the selection

and write a paragraph explaining how and why the solution is beneficial to the environment and how they would put the solution into action.

Class discussion

Discuss with students the solutions and the process of rating them. Did they find this effective? Can they suggest other ways to rate the solutions?

Rate the solutions as a class, using the topics as a mini-debate.

Solutions – greenhouse gas emissions and travel behaviour

In groups, students prepare a list of solutions for reducing greenhouse gas emissions related to travel behaviour.

Groups exchange lists, then rate the solutions using the 'Will it' questions.

Repeat this process until a best solution has been decided by the class.

Students could prepare a report on how to put the solution into practice. Include an outline of why the solution is viable, what laws or rules would need to be put into practice to support the solution and how would it impact on the environment.

Class discussion

Students explore and record their understandings of the following statements:

- That a culture of dependency has developed around our concept of the car as an essential transport mode.
- That exercising our right to choose between options for travel has a direct impact on our quality of life.

Name: _____

Activity 4.1 MP – Find-a-word

T	L	S	A	G	N	I	K	L	A	W	E	C	E
R	E	S	U	O	H	N	E	E	R	G	E	A	E
O	V	E	C	M	E	M	Y	D	R	M	L	R	N
P	A	N	F	S	A	L	A	K	A	E	C	P	I
S	R	T	L	R	I	E	C	P	F	A	I	O	A
N	T	I	T	M	T	U	A	Y	R	A	H	O	R
A	V	F	A	M	T	F	M	I	C	I	E	L	T
R	R	F	T	N	E	M	N	O	R	I	V	N	E
T	R	A	F	F	I	C	N	R	E	A	B	U	S
D	O	O	H	R	U	O	B	H	G	I	E	N	S

- AIR
- BICYCLE
- BUS
- CAR
- CARPOOL
- ENVIRONMENT
- FAMILY
- FITNESS
- FUEL
- GREENHOUSE
- MAP
- NEIGHBOURHOOD
- SMOG
- TRAFFIC
- TRAIN
- TRAM
- TRANSPORT
- TRAVEL
- VEHICLE
- WALKING

The remaining letters spell a message – who can work it out?

The answer is:

— A — — — — — D — — — — —
— — — — — E — S — — — — — !

Handy hint – tick the boxes next to the words once you have found them.



Name: _____

Activity 4.1 MP – Transport modes



Joel needs to visit the following places:

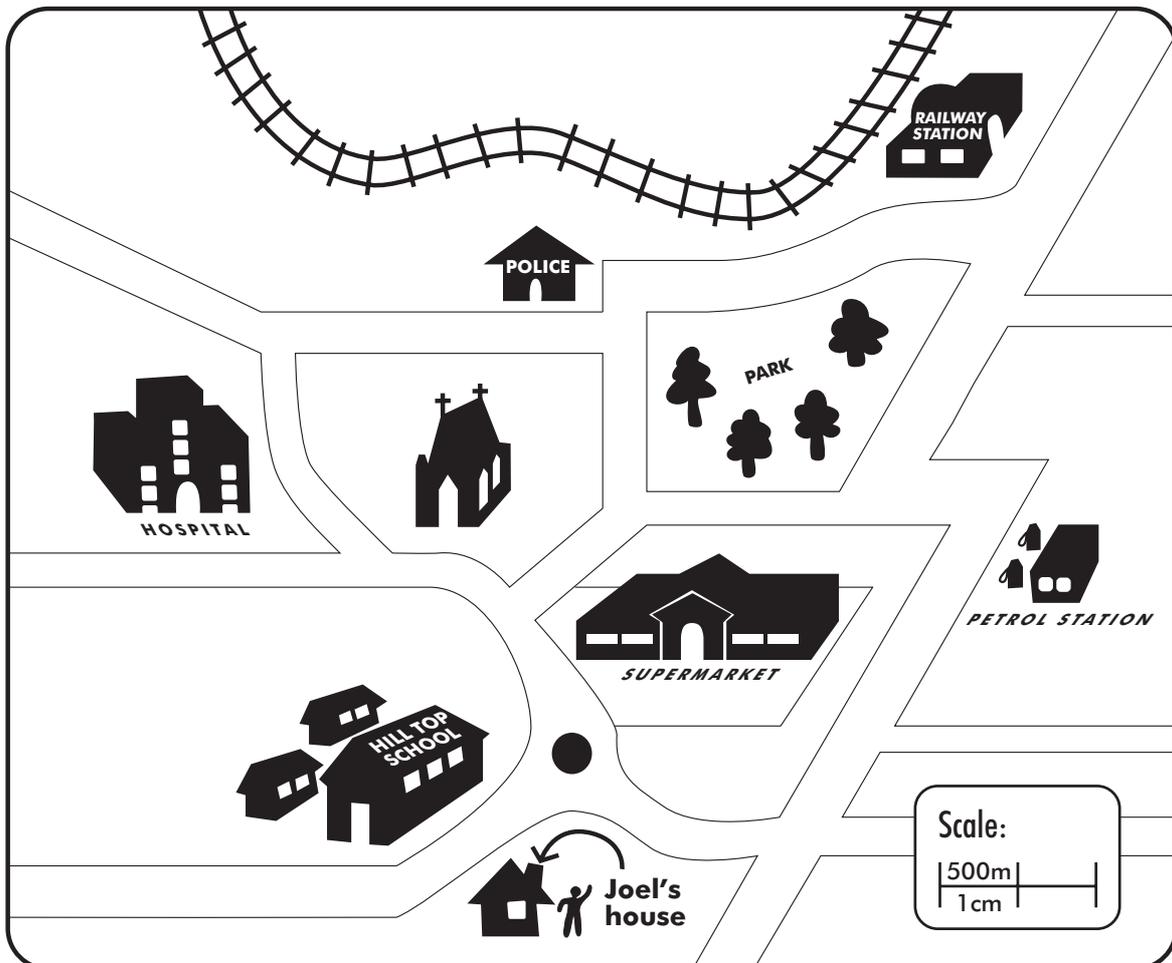
- the supermarket
- the hospital
- the railway station
- Hill Top School
- the park.

1. Help Joel decide which mode of transport to use by drawing a coloured path to each place. Use the colour key below.

Blue = walk

Green = cycle

Red = car



2. List two places you could walk to, from your house.

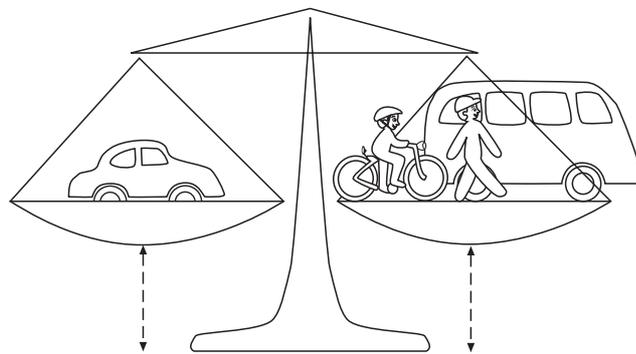
1. _____

2. _____

Activity 4.1 MP – Win-win?

To make our communities better now and for the future we need to work together. We need to encourage everyone to have a sense of responsibility about their community.

We need to balance our use of the motor vehicle with other transport modes.



1. Think of some more disadvantages of using the motor car and complete the table below.

To the individual	To the community
Too much time in the car	Loss of community spirit
Increasing frustration with traffic	No liveable streets for walking and playing



2. What solutions and actions could your family use to reduce car usage?

- _____

- _____

Name: _____

Activity 4.1 UP – Travel and transport alternatives



To help the environment, save money and increase our fitness we can use other modes of travel. Brainstorm alternative modes of travel to the motor car and list the advantages and when you would be most likely to use them.

Alternative mode of travel	Advantages	When would we use it
1. walking	helps to keep us fit	going to school walking to the park
2.		
3.		
4.		
5.		



Name: _____

Activity 4.1 UP – How far is that?



1. Look at the list below and write down your estimate of the length or width of the item. Once you have done this, work with a partner to measure and record the actual length or width of each item.

Estimating



Item	Estimate	Actual measurement
Length of your biro		
Length of the classroom		
Height of the door		
Length of your table		
Length of your leg (hip to heel)		
Height of the room		
Height of your partner		
Width of the room		
Length of the hall/corridor		
Length of the oval		
Length of the basketball court		
Width of your ruler		
Length of the teacher's desk		
Width of your thumbnail		
Width of the oval		
Length of your smallest finger		

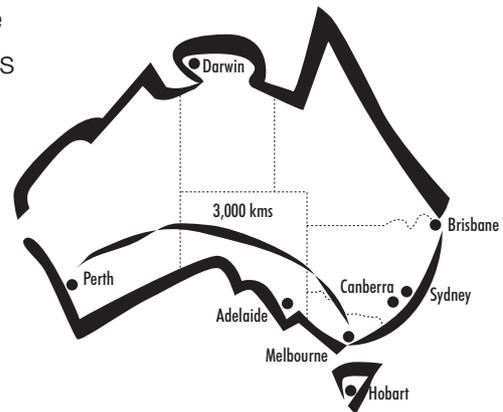
Activity 4.1 UP – How far is that? (continued)



2. How far are other places from your capital city?

Look at the map of Australia on the right. Note that it is about 3,000kms from Melbourne to Perth.

Estimate the distances to other capital cities of Australia using your capital city as your starting point. When you have done this look at an atlas to find out the actual distances.



3. Work out two different routes from the door of the classroom to the flagpole.

First estimate, then answer these questions:

- Which route would be shorter?
- How long would it be in metres?
- What would be the difference in length between the two routes?

Use a trundle wheel to measure the distances.



4. Distances and times

Try these activities:

- If a person can run 100m in 10 seconds, how long would it take to run 10m? Go outside and see how long it takes you to run 10m. Once you have worked this out, how long should it take you to run 100m? Measure out 100m and test how long it does take. Did it take longer than you thought? Why?
- Could we fit in a 400m race on our school oval? First do an estimation and then measure it. What about a 200m track?
- With a partner marking the spot, throw a tennis ball as far as you can. Measure the distance. See if your partner can throw further. Do the same with a bean bag or some other weighted item. Make sure you measure accurately, that is, in metres and centimetres. Why is it very important to measure accurately with athletic events?

Activity 4.1 UP – Decision making



1. Some problem areas about car and exhaust pollution follow. A list of possible solutions is provided.

Use the **Will it** questions to help your thinking. Then number the solutions 1, 2 or 3 as follows: 1 = best solution, 2 = next best solution, 3 = least possible solution.

Car and exhaust pollution – we can clean the air up

- We ban all private cars
- We work more from home
- We make petrol very expensive
- We make fewer car trips
- We share cars more
- We improve public transport and use it more
- We allow car use only on some days
- We all walk to school or to work
- We fine drivers heavily if their exhausts pollute the air
- We go back to using more horse-drawn vehicles

Remember to use the **Will it** tests. Put your numbers 1, 2, 3 in the boxes.



2. To fix some of the problems we have seen about traffic, and the environment, we need to find some solutions. When looking for solutions it is a good idea to work through some **Will it** questions. For example: **Will it...**

- *make us happier?*
- *help other creatures?*
- *be likely that people will try it?*
- *help us to be healthier?*
- *help the environment?*
- *help people to have jobs?*
- *be good for the future?*
- *cost us in other ways, for example, convenience?*
- *take time?*
- *use materials/resources wisely?*
- *save energy and money?*
- *have much chance of working?*
- *help with part of the problem?*
- *cost us some freedom?*
- *be practical?*

There are a lot of **Will it** questions – it helps to ask questions about our answers!



3. Which solution do you think is best? What are the benefits and why would the solution work?

4.2 Walking

TravelSmart Objectives Australia

To recognise the benefits of, and encourage participation in, walking as an alternative transport choice.

TravelSmart Outcomes Australia

Students will be able to:

- identify the advantages and disadvantages of walking as a sustainable travel option
 - understand that federal, state and local governments are concerned with the issues of making walking a safe and healthy transport mode
 - collaboratively plan a walking excursion, considering the factors of time, distance, route, location and the implications of the purpose for the walk.
-



JUNIOR PRIMARY – 4.2 Learning Activities

Class discussion / Brainstorm – What’s good about walking?

Students contribute to a discussion, exploring the Plus Minus Interesting aspects of walking as a transport mode. Some different ideas to talk about are ‘walking the plank’, ‘walking off your dinner’, ‘going by shanks’s pony’



Section 5 – Resources – 5.1 Thinking and teaching strategies

Diary

In an ordinary day, we do a lot of walking. Using the diary page, students record all their walking over a set period of time, for example, recess time at school. Using a trundle wheel, retrace the walks to measure how far they walked in that time.

Extend this investigation by measuring the same distance in a straight line.



Section 2 – Tuning in – Activity 2.3 JP Travel diary

Procedure

Using a procedural structure, students plan a walking trip to a favourite destination. They could record attractions, hazards, distances and approximate time of the walk.



Section 5 – Resources – 5.3 Text types

Research – Walking and energy

Walking uses up our body’s energy – and food provides the energy we need.

What are the best energy foods? Students could bring labels from some favourite foods, read the information about energy and rate the foods according to how much energy they provide.



MIDDLE PRIMARY – 4.2 Learning Activities

Planning a mystery walk

Discuss with students the points to consider in planning this activity:

- The destination and route to get there – what is a reasonable distance to walk?
- Proposed date(s) – refer to the school's calendar of events.
- Departure and arrival times, to and from the venue – how long will you be away from school? Remember to fit in with the hours of the school day.
- Features of the walking trail – hills, safety road crossings, toilets (en route) and drink stops.
- Features of the destination and reasons for choosing it – eating areas, availability of drinking water, shade, play equipment and toilet facilities all need to be considered.
- Items each student needs to bring – hat, sunscreen, water, packed lunch, sporting equipment, first aid kit.
- Is any other information needed?

Students could work in groups, each planning a different aspect of the excursion and reporting their work to the class for discussion.

Do they need to present their proposal to the school's decision-making committee?

Do they need to write a permission note to be signed by each student's parent/carer?

Will they write an article for the school newsletter?

Will they ask the school's parent committee to provide cool drinks at the venue?

Remember to emphasise the reasons the students are involved in this activity – to encourage the health and environmental aspects of walking as a transport alternative.

Use a cooperative checklist to assess the way students have worked in planning the walk.



Activity 4.2 MP – Cooperative checklist



Section 5 – Resources – 5.1 Thinking and teaching strategies

Concept map

Federal, state and local governments are working with community organisations to make walking a more attractive transport option. They consider issues of safety, footpath structure and special pedestrian needs in encouraging people to walk, by choice.

Students develop a concept map of all the things that are related to walking.



Section 5 – Resources – 5.1 Thinking and teaching strategies

The school could organise a walk to a local centre, landmark, attraction or event. Make sure a walk is included as an activity while the class is on camp.

Research

Students develop a research plan to investigate one of the concepts. There are several web sites which can be accessed for information.

www

For example,

Western Australia's Department for Planning and Infrastructure has several pages about different initiatives to encourage walking.

www.dpi.wa.gov.au

Walking for Health, design for safe walking, US site with good ideas and links

<http://www.walkinginfo.org/>

International Walk to School week is during October in most participating countries. In Australia it is held early April as Walk Safely to School Day.

<http://www.iwalktoschool.org/>



UPPER PRIMARY – 4.2 Learning Activities

Brainstorm

People walk for lots of different reasons, for example walking to school, walking to and from public transport, walking to, from and at work, walking to local businesses/ services, walking for fitness and health, walking for recreation, walking the dog and walking for pleasure.

Students add to this list and develop a mind map of the special clothing and equipment that are needed for each 'type' of walking.



Section 5 – Resources – 5.1 Thinking and teaching strategies

Investigation

Students access the website below, and print the PDF 'How walkable is your community?'

Each student could complete the checklist and then ask four other people in their community to participate. Are there any trends or common concerns? What could be done about correcting problems?



Pedestrian and Bicycle Information Centre

<http://www.walkinginfo.org/pdf/walkingchecklist.pdf>

Class discussion

In the United States of America, the number of students choosing to walk to school has fallen more than 60% since 1970. Find a statistic for Australia, that tells how many people walk. Try to find a comparative statistic from several years ago.

Focus questions:

- What is the walking trend in Australia?
- What do you think has caused this to happen?
- What does a change like this mean to people, their lifestyle and the communities they live in?
- Can anything be done to reverse this trend?



Australian Bureau of Statistics

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

Community initiatives

Many initiatives in the community exist which encourage walking as a sustainable travel option.

¹ Wetmore, John Z. Reducing Student Pedestrian Perils. <http://www.pedestrians.org/articles/riskmanagement.html>

Research some of the links below to discover what is being done in communities in Australia and overseas.

www

US TV program about being pedestrians

<http://www.pedestrians.org/>

The Australian Pedestrian Charter (Sept 1999) for teacher information

<http://www.walk.com.au/pedestriancouncil/page.asp?PageID=107>

Good dot points about the benefits of walking, health, community and safety in WA

<http://www.sustainability.dpc.wa.gov.au/CaseStudies/pedestrianinitiatives/pedestrianinitiatives.htm>

In Rockhampton, Queensland, the 10,000 Steps initiative has made a difference to people's health and community awareness

<http://www.10000steps.cqu.edu.au/>

Name: _____

Activity 4.2 MP – Cooperative checklist

Section: _____

Task: _____ Date/s: _____

	Developing	Often	Always
Social skills			
Listens to others			
Uses quiet voice			
Takes turns			
Uses names			
Asks questions			
Shares ideas			
Justifies ideas			
Reports ideas			
Asks for help			
Helps others			
Thinks critically			
Achieves group consensus			
Stays on task			
Finishes task			
Follows directions			
Records ideas			
Stays in group			
Shares material			
Watches time			
Self-motivated			
Independent			
Enthusiastic			
Willing to take risks			
Creative thinker			
Logical thinker			
Confident			

4.3 Cycling for transport and your health

TravelSmart Objectives

To appreciate why people choose to cycle for transport and recreation.

TravelSmart Outcomes

Students will be able to:

- recognise and discuss the advantages and disadvantages of cycling as a transport option
 - understand the laws relating to cycling on public roads and in public spaces.
-



JUNIOR PRIMARY – 4.3 Learning Activities



Activity 4.3 JP – Pedal power, not petrol power

Discuss with students the advantages and disadvantages of cycling. Some answers could include:

Advantages

- good for the environment
- improves personal fitness
- fun/stress relieving
- speed/quickness of travel in congested areas especially
- inexpensive
- parking is a lot easier if secure bike racks available
- opportunity to socialise

Disadvantages

- can be dangerous if the trip means riding on busy roads
- must own a bike
- not always as convenient as car travel
- motorists' attitudes
- roads not being properly designed to accommodate cyclists
- breathing in pollution if cycling on a busy road.

Students discuss the lists. Do they all agree with the statements? They can complete the Activity, listing the advantages and disadvantages that they, as individuals, agree with.

The bicycle

Students draw and label a diagram of a bicycle and name all the parts they can. Ask an older student or an employee in a bicycle shop if they could visit the class, with a bicycle, to answer questions about bikes.



MIDDLE PRIMARY – 4.3 Learning Activities



Activity 4.3 MP – Pedal power, not petrol power

Students read the cycling information and then make a list of advantages and disadvantages of this form of transport.

Design

A group of students from the class could contact the local council for information on local bike routes and plan a class/school ride, using a similar checklist to the one developed for planning the mystery walk (see 4.2 Walking – Middle Primary).

This could link in with National Heart Week or a TravelSmart awareness day planned by the school.

Students design a bicycle route using a map of their local area as a guide, considering where it would go, how it would be constructed and why it should be developed.

Students could map the route, using signs and symbols to show parks, road crossings, railways, bus stops, train stations, schools, toilets, shops, drink stops, rest stops, steep hills, bridges and other features.

Cycling and the Law

Under the Australian Road Rules, bicycles are defined as vehicles and bicycle riders are regulated under the same rules that apply to drivers of motor vehicles. One rule that is different is that students can learn to ride a bike any time and do not have to wear 'L' or 'P' plates – but it is not safe to ride alone on public roads until they are at least 10 years old.

Focus questions:

- Why do think this is so?
- Do you think it is fair? Why? Why not?

The class could invite a member of the police force to visit and be interviewed about bicycles and road rules.



Section 5 – Resources – 5.1 Thinking and teaching strategies

Another application of design could be to make a track for remote controlled cars. Vehicles could participate under specified race conditions to achieve energy saving goals.

'Wheels' Day'

Plan a day when students travel via wheeled vehicle – including skate boards, roller skates or remote controlled cars.



UPPER PRIMARY – 4.3 Learning Activities

The development of the bicycle

The earliest known design of a bicycle is thought to have been created by Leonardo da Vinci in 1490 – over 400 years ago. Locate an image of this design using a search engine. Is da Vinci's design very different to the bicycles we use today? This is thought by some to be a hoax: see for example http://users.aol.com/PryorDodge/Leonardo_da_Vinci.html.

Refer to Section 5 – Resources – 5.2 The development of the motor car and bicycle, to track the ways in which bicycles have changed and improved since 1490.

Bring the timeline up to date with your own ideas and research modern styles of bikes, the materials they are made from and the modifications that have been made for comfort, speed and safety.



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

The community and bicycles

Many communities are adapting their facilities to make conditions easier for cyclists. Students could design a survey about bicycle facilities and take it to members of their community to complete.

In collating the survey, encourage students to list all the positive comments and make a list of the initiatives that need to be improved, changed or begun.

Research

Some places are reserved just for bicycle riding. This is very good for cyclists but can be frustrating for other people. Develop a Plus Minus Interesting list and debate the topic: 'That special roads should be reserved just for bicycles.'

Bike Ed

Bike Ed is a major initiative in Australia. Access the websites and find out more about this organisation. Can it provide any resources that would be useful to students? How can they be accessed?



Bike Ed

http://www.greenweb.com.au/kidsafe/html/bp_bike_ed_campaign.html

http://www.transport.sa.gov.au/education/schools/bike_ed/index.asp

Research

Bicycling has emerged over the last ten years as a popular sport. The World Solar Cycling Challenge and the Jacob's Creek Tour Down Under are two events in Australia that are becoming attractive to overseas competitors. Research these events, using the How. When. Where. Why. Who. What question matrix.



World Solar Cycling Challenge

<http://www.bikesa.asn.au/Events/wscc.htm>

Jacob's Creek Tour Down Under

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



Section 5 – Resources – 5.1 Thinking and teaching strategies

Cycling and the Law

Under the Australian Road Rules, bicycles are defined as vehicles and bicycle riders are regulated under the same rules that apply to drivers of motor vehicles.

Students could contact the Department of Transport in their state and ask for a copy of a booklet that explains the rules for cyclists, or access their website for information about cyclists and the law.

Caring for your vehicle – your bike

Caring for a bicycle makes it a safer vehicle. Washing, polishing, oiling, repairing, and replacing are all important facets of bicycle care. Students research and develop a procedure for the continuing care of their bicycle – including materials to use and a suggested timeline.

Research

Read about the correct hand signals to use, the rules for riding on footpaths and the penalties that can apply for breaking the law.

Remember ... If you are a cyclist – these rules apply to you!

Students present their findings to the class in a creative way.

Name: _____

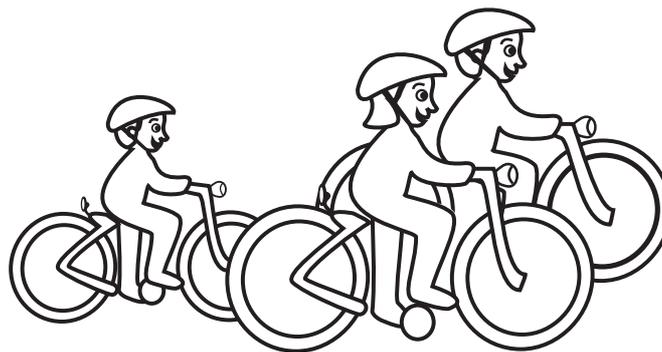
Activity 4.3 JP – Pedal power, not petrol power

People use bicycles to meet many transport needs:

- to travel to and from work
- for shopping
- for sport, health and fun
- to go to school
- to visit friends.

Cycling can be much cheaper and sometimes almost as fast as motor transport when city traffic gets jammed up.

Cycling cuts down greenhouse gases and is good for our health.



1. Make a list of advantages and disadvantages of using bicycles for transport.

Advantages

Disadvantages

4.4 Public transport

TravelSmart Objectives

To explore types of public transport and the issue of their use and viability as transport options.

TravelSmart Outcomes

Students will be able to:

- assess the efficiency, viability and comparative costs of a number of public transport services
 - explore the advantages and disadvantages of these services
 - suggest ways to increase patronage of public transport as a sustainable travel option
 - organise information needed to plan travel using public transport.
-



JUNIOR PRIMARY – 4.4 Learning Activities

Brainstorm

Students brainstorm all the things they know about public transport.

Focus questions:

- Why is it called public transport?
- What sorts of transport are 'public'?
- What do they look like?
- How do people use them?
- Where do these services go to?
- Who uses them?
- How can you tell the difference between different operators, for example, a school bus and a public bus?

Buses, trams and trains

What is the same and what is different about each of these forms of public transport?

Game

Using an area of the school yard, students draw their own street system, with traffic lights, pedestrian crossings, bus stops, train lines and stations, tram lines and stations, bike lanes, walking trails and footpaths.

Using models for cars, public transport vehicles and people, they can develop a game, using road rules and developing understandings about why rules exist.

During the game, organise opportunities for assessment of the street plan – should any features be changed? Have any of the transport users been forgotten in the plan?

Can the street plan be made more attractive?

Research

Access the Tampa Bay website.

What do the images mean in terms of public transport?

www

Tampa Bay Online

<http://www.tampabayonline.net/bguard/home.htm>



MIDDLE PRIMARY – 4.4 Learning Activities

TravelSmart Log

Brainstorm all types of public transport – air, road and water. Extend the brainstorm to consider the scope of these services, how much they cost, how the vehicles are fuelled, how many passengers they can carry at once. Add this information to their TravelSmart Log.



Activity 4.4 MP – Increasing the use of public transport

Ask students to read the information outlining the advantages of using the bus as a form of public transport and the average waiting times. Students are then asked to answer related questions and to assess their own usage of public transport with a view to making suggestions for increasing bus patronage.

A list of average waiting times has been included in the Activity, for the purpose of introducing the concept of supply and demand in relation to public transport frequency and patronage. Students are asked to comment on why the services in Toronto, Canada are more frequent than those in Adelaide, South Australia. Discuss with students the difference in population resulting in a greater demand for public transport and therefore an increase in the number of services. Urban design can also influence the frequency and number of services. This concept is explored further in Activity 2.6 UP – The spread of cities.

Class discussion

Discuss with students the advantages of catching a bus:

- reduces greenhouse gas emissions by reducing car travel
- cost
- stress relieving – passengers can talk, read, listen to music
- comfort – most buses are air conditioned.

As a part of the discussion, ask students to assess their own travel on public transport. If they are frequent users, discuss the advantages and how they plan for this type of travel. For students who do not use public transport, discuss the factors that inhibit them and what can be done to overcome them.

Planning a bus trip

Discuss with students the importance of planning a journey to ensure that it is successful and timely.

Focus questions:

- What things would you need to think about when planning your trip?
- How much time do you have?
- How much time do you need?
- What information will need to be gathered for planning a trip using the bus?

For example, timetables, cost of fare, special restrictions and services, location of bus stops in relation to departure and arrival places.

- How will you source this information?



Activity 4.4 MP – Local buses

Students can either collect local bus timetables, find contact phone numbers or access a web site of bus services on the Internet to obtain the necessary information. Using the timetables, students answer the guideline questions for planning a public transport journey.

Planning an excursion

Using the planning skills that have been practised, students could plan an excursion for the whole class, using public transport. Submit the plans to a class panel for approval. Use Activity 4.4 MP – Local buses as a guide for the information that will have to be included in the travel plan. Think about including other forms of public transport, such as train or tram, in the plan.

The excursion could be to a local city bus depot, where buses are garaged, serviced and cleaned.



Section 5 – Resources – 5.5 Glossary



Activity 4.4 MP – Find-a-word

Students list all words relevant to the TravelSmart program and create their own Find-a-word activity – including a hidden message.



UPPER PRIMARY – 4.4 Learning Activities

Other forms of public transport

Buses, trams, trains and ferries are traditional forms of public transport. Many new initiatives have been introduced to make public transport more accessible and reliable for people to use.

Free services, like the Central Area Transport Service (CATS) in Perth, Adelaide FREE, the City Circle Tram in Melbourne and The Loop in Brisbane operate in the Central Business Districts of these cities. Their timetables offer frequent services and the stops are well placed.

Using the World Wide Web, access the timetables and maps of some of these systems.

Use this information to develop an argument for using public transport at all times in the city centre, in preference to motor cars.

Monorail

Sydney's Monorail operates around the city to complement the underground rail system.

What does monorail mean? How does it work? Locate images of the monorail track and carriages.

Public transport and technology

Cities are constantly investigating ways to make public transport better. Recent initiatives in some Australian cities include trialing the use of electric powered buses and buses with bicycle storage facilities, installation of 'talking' bus stops and surveys of public awareness of public transport services.

Watch the television news for a one week period and note any items about transport that are featured. Review the item and present a report about it to your class.



Section 5 – Resources – 5.3 Text types

Design

Students discuss and design a new method of public transport. Plan where it is needed, how much it will cost to use, what energy source will fuel it, how many people will be able to travel in one trip, how it will enhance the local environment and be a good resource for the community.

Name: _____

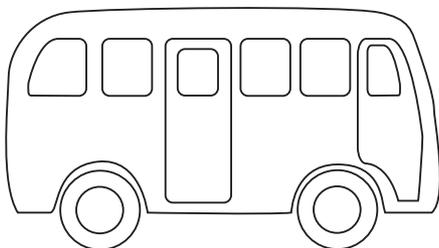
Activity 4.4 MP – Increasing the use of public transport

Many people who use public transport do so because it is an inexpensive means of travelling and they don't have to do the driving themselves. Passengers can read, listen to music and relax and let a friendly driver take them to their destination. Most buses are now comfortable, air-conditioned and fully accessible. The bus services have increased and improved, thereby reducing waiting times to as little as five minutes in some areas, and there is now more security on board buses, trams and trains.

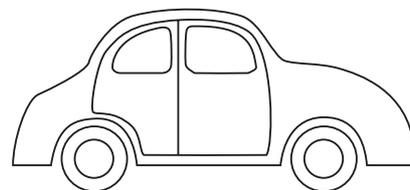
A bus with 30 passengers needs less space, makes less noise and air pollution than 30 separate cars each carrying one person. Using public transport cuts down the number of cars that are on the road. This helps to reduce travelling time for everyone using the roads.

But public transport has its drawbacks. Sometimes it isn't as easy to get where you want to go as it would be to simply get in your car and drive there. Stopping in the middle of your journey, or changing route may be difficult. Sometimes no public transport goes directly to your destination, so a trip may involve changing trains, buses or trams. You have to plan your trip to allow enough time to get the best out of using public transport.

Using public transport helps to reduce emissions



 = 30



 = 4

Activity 4.4 MP – Increasing the use of public transport (continued)



1. The table below shows the average waiting time between buses from Adelaide to Marion and a comparison with the journey from Toronto to North York (Canada).

	Adelaide to Marion 10 km from the CBD	Toronto to North York 17–34 km from the CBD
Peak hour	13 minutes	2.5 minutes
Off peak	19 minutes	6 minutes
Saturdays	18 minutes	8 minutes
Sundays	30 minutes	10 minutes

Answer these:

1. Explain the terms 'peak hour' and 'off peak'.

2. On which day would you wait the longest for a bus both in Adelaide and Toronto? Can you suggest some reasons for this?

3. When would you wait the least amount of time? Why?

4. Average waiting time in Toronto is much lower than in Adelaide. Why would this be so?

Name: _____



Activity 4.4 MP – Local buses



1. Investigate the local bus system in your area by completing these questions:

a. Which bus route will pick you up from near the school and take you to your closest shopping centre?

Bus route numbers _____

b. What is the location of the closest bus stop?

c. Fill in the following:

Time to wait after school _____

Pick up time (closest to school) _____

Drop-off time at shopping centre _____

Cost of trip \$ _____

d. After shopping till 5:30 pm, what information would you need to get home? Fill in the following:

Departure time _____

Route number _____

Arrival time _____

Location _____

Cost \$ _____

Travelling time on bus _____

Distance from bus stop to home _____

Time to walk from bus stop to home _____

e. If you missed the bus how long would you have to wait for the next one? _____

4.5 Spreading the TravelSmart message

TravelSmart Objectives

To explore different ways of communicating ideas, taking into consideration the appropriateness of the information to the chosen medium and target audience.

To develop presentation skills and to be able to objectively evaluate the effectiveness of the presentation.

TravelSmart Outcomes

Students will be able to:

- learn new skills for presentation of information in informative and powerful ways
 - understand the role of audience in presentation
 - employ strategies of evaluation of their work
 - understand that the TravelSmart message goes beyond their class – it is a global message in which we are all involved.
-

4.5 Spreading the TravelSmart message

Mural

Ask students to paint a mural with illustrations and messages about what they have learned during the TravelSmart unit.

Big book

Create a big book – each student adds a page containing a TravelSmart statement and illustration.

Letter

Write a letter to the local government authority, a state government department or industry, highlighting the benefits of using alternative transport options. Include in the letter some possible strategies for reducing greenhouse gas emissions and for solving traffic congestion problems.

Video

Make a video commercial which highlights the positive aspects of using active transport options such as walking, cycling and public transport. Set up a borrowing system so that students can take the video home to show their families. Present the video at a school assembly or contact a local TV station and ask if they would do it.

Street art

Students ask permission of the local government authority to decorate community facilities – bus stops, stobie poles, railway stations – to highlight the benefits of using transport options such as walking, cycling and public transport.

Poster

Design posters to promote TravelSmart and display them around the school, in local businesses and community areas.

Drama

Write a play about the harmful effects of the car on our environment and what we can do to reduce our dependence on motor cars. Perform the play to parents, friends and local community groups.

Radio

Approach the local radio station and ask if students could be interviewed about being TravelSmart as part of a community news segment. Make sure that the broadcast time is advertised in the school newsletter.

Debate

Invite students at another school to join a debate. Some TravelSmart topics are

- 'That all traffic should be banned from city centres.'
- 'That special roads should be reserved just for bicycles.'
- 'That cars can only be used on odd or even days.'
- 'That all drivers must use their car as taxis.'
- 'That only cars with more than two occupants will be allowed to use freeways.'
- 'That the government should introduce a toll for all freeway use.'
- 'That the car is a freedom machine.'
- 'That cars are a necessary evil.'

School newsletter

Contribute a regular TravelSmart column to the school newsletter, detailing recent activities and initiatives that have taken place in the school.

Speech

Encourage students to approach the school's governing council or parents' club and ask if they can speak about TravelSmart initiatives at a meeting.

Newspaper

Prepare an article about the school's TravelSmart initiatives for the local newspaper. Ask a reporter to visit the school, interview students and take photographs to spread the message.

B-Bop Day

B-Bop Day is a day when students (and families) are encouraged to use energy efficiently, consider environmentally friendly transport alternatives and decrease dependence on single occupant vehicle transport.

www

Bike, Bus or Pool

<http://www.b-bop.org>

Commuter Buddies

Students advertise to find a 'walk or ride buddy' by posting requests on the school's intranet, notice board or newsletter. They can design an appropriate form, advertising for a walk or ride buddy to travel to and from school with.

Travel rally

Students work in teams to design and implement a transportation plan for getting to a series of locations in the area by using alternative forms of transport.

Green Grand Prix

Students organise a local push cart event. They design a human powered vehicle and participate in an organised endurance event in the local area. Other schools could be invited to compete.

Design

To advertise a TravelSmart initiative in the school, students could organise a display of T-shirt, banner or flag designs – to spread the TravelSmart message.

World Environment Day

June 5th each year is World Environment Day. This could be a good date for TravelSmart presentations and to advertise the school's participation in a global event.