






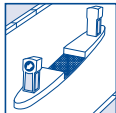
# Teachers' Notes

Curricular links to Health Education 5-14 National Guidelines and RSE Guidelines

Attainment outcome: Taking responsibility for health		
LEVEL D		
STRAND	ATTAINMENT TARGET	RSE GUIDELINES
<p><b>Social health</b> This strand explores the interaction of the individual, the community and the environment in relation to health and safety.</p>	Identify ways in which the wider community takes action to protect health e.g. traffic and pollution management.	Road engineering.

## Teaching Background Information





Please refer to the poster for more information.

What is it?	How does it work?
<p><b>SPEED HUMPS</b></p> 	These force drivers to slow down as driving over them too fast is very uncomfortable.
<p><b>SAFETY CAMERAS</b></p> 	These take pictures of speeding motorists who can then be prosecuted by the police.
<p><b>PEDESTRIAN CROSSINGS</b></p> 	Several types e.g. zebra, pelican. Pedestrians have right of way so the cars have to slow down or stop.
<p><b>TRAFFIC ISLAND</b></p> 	This helps pedestrians cross the road safely and can stop drivers overtaking.





# Teachers' Notes

What is it?	How does it work?
<b>MINI-ROUNDAABOUT</b> 	Drivers have to slow down to drive around them and have to watch out for other cars which may have the right of way.
<b>CHICANE</b> 	The road is narrowed on one side of the road. Further along it is narrow on the other side, forcing drivers to slow down to get through.
<b>PINCH POINTS</b> 	These narrow the road and make drivers slow down to drive through them.
<b>SPEED LIMIT</b> 	Every road has a speed limit. Drivers exceeding the limit are breaking the law.

## Useful Websites

[www.roads.dft.gov.uk/roadnetwork/ditm/tal/traffic/index.htm](http://www.roads.dft.gov.uk/roadnetwork/ditm/tal/traffic/index.htm)

[www.iht.org.uk/IHT.org/default.htm](http://www.iht.org.uk/IHT.org/default.htm)

[www.rospa.org.uk](http://www.rospa.org.uk)



# Suggested Lesson Plan



## Aims

- ➔ To show that there are different ways to slow down traffic.

## Learning Outcomes

- ➔ Understand why there is a need to make vehicle speeds slower.
- ➔ Learn about the different types of road engineering used to slow down vehicles within built up areas and around schools.
- ➔ Understand how these affect the driver's speed.

## Resources

- ➔ Poster "Traffic Calming Schemes".
- ➔ Sheet D4a – What is Traffic Calming?
- ➔ Worksheet D4b – What is Traffic Calming?
- ➔ Worksheet D4c – Map of Inverellon – Enlarge to A3.
- ➔ Sheet D4d – Traffic Calming in Action.
- ➔ Worksheet D4e – Engineering Measures.
- ➔ Photo of speed hump.
- ➔ Glossary.
- ➔ Word Flashcards.
- ➔ A photo of a traffic island is included in Level B, Activity B1.



## Suggested Timing

- ➔ 60 minutes.

## Suggested Development of Lesson

- ➔ Discuss and explain speed restriction zones and limits (e.g 30mph in built up areas, local authorities can introduce 20mph speed limits where these are likely to reduce actual vehicle speeds and cut casualties).
- ➔ Ask pupils why they think drivers exceed the limits in built-up areas.
- ➔ Discuss attitudes towards speeding compared to drink driving (i.e. most people accept that drink driving is bad whereas speeding is much more accepted).



## Suggested Lesson Plan

- ➔ Revise stopping distances from Activity D1 and the danger that speeding motorists present to pedestrians and cyclists.
- ➔ Discuss the poster “Traffic Calming Schemes” and the photo of the speed hump. Note: Traffic calming measures reduce average speeds typically by 10mph. They are particularly effective at reducing child pedestrian casualties.
- ➔ Distribute Sheet D4a and Worksheet D4b. Allow pupils time to complete.
- ➔ Discuss and list the effect each of these has on the speed of drivers and the protection of pedestrians and cyclists using roads.
- ➔ Distribute Worksheet D4c and Sheet D4d. In pairs or small groups complete the tasks.
- ➔ Present their solution to the class.

### Assessment

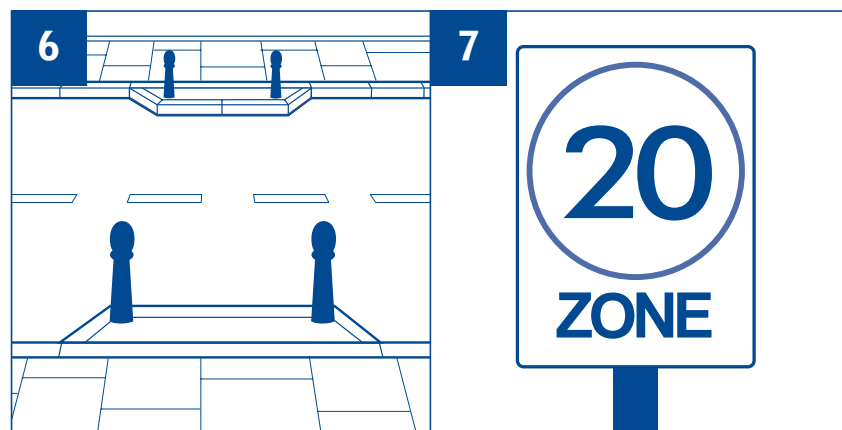
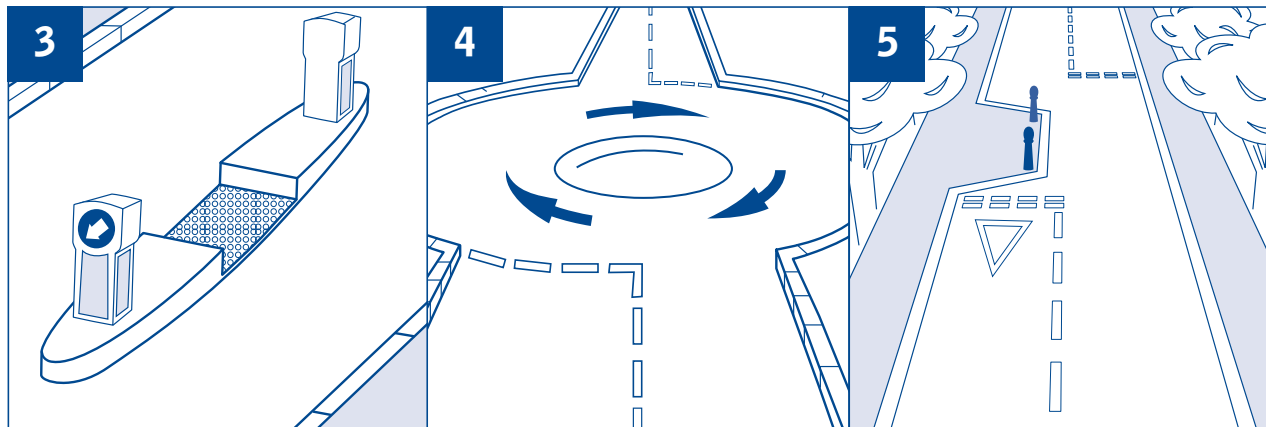
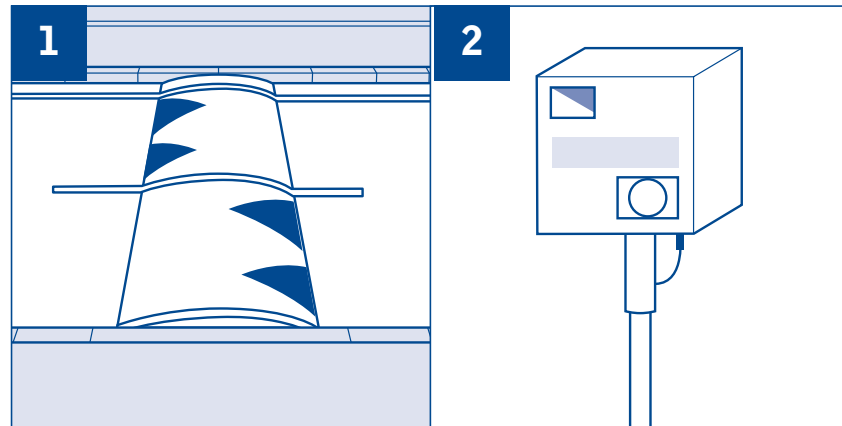
- ➔ Do pupils understand the reasons why traffic needs to be slowed down and the traffic calming measures and engineering measures that can be used to do this effectively?

### Curricular Links

- ➔ English Language – Talking: Talking in groups.
- ➔ English Language – Listening: Listening in groups.
- ➔ Environmental Studies – Knowledge and Understanding – People in Society: Rules, rights and responsibilities in society.

### Follow-up/Homework Activities

- ➔ Worksheet D4e.
- ➔ Give pupils a list of relevant traffic calming measures for the local area. Over the course of a week, pupils count the number of each of these traffic calming measures that they see. Their results are brought back to the class and discussed. The information is collated and put into a simple graph form using a computer.
- ➔ Identify any places near their school or home where there is a need for traffic calming and make suggestions for the appropriate measures they would like to see.
- ➔ Write a letter to your MSP about the need for traffic calming and the appropriate measures they would like to see put in place.



## Tips

- ➡ Chicane – The road is narrowed on one side of the road. Further along it is narrow on the other side, forcing drivers to slow down to get through.
- ➡ Pinch point – The road narrows on both sides at the same place.

# Worksheet D4b What is Traffic Calming?

Names:

Date:

**Traffic Calming** describes the measures which can be used to slow traffic down to prevent casualties.

**AIM:**  
*You are going to learn about ways in which traffic can be slowed down.*

## TASK

➔ For each of the numbers in the picture on Sheet D4a, name the traffic calming measure and explain how it works.

➔ Choose from the box below.

- Chicane
- Safety camera
- Traffic island
- Mini-roundabout
- Pinch point
- Speed hump
- Speed limit



No.	Traffic calming measure	How does it work?
1		
2		
3		
4		
5		
6		
7		

## EXTRA

- ➔ Which traffic calming measure do you think is the most effective? Explain your answer.
- ➔ What traffic calming measures do you have near your school or home?
- ➔ Do you think they work? Give reasons.



# Pupil Activities Answers

## TASK

**Traffic Calming** describes the measures which can be used to slow traffic down to prevent casualties.

- ➡ For each of the numbers in the picture, name the traffic calming measure and explain how it works.
- ➡ Choose from the box below.

- Chicane
- Safety camera
- Traffic island
- Mini-roundabout
- Pinch point
- Speed hump
- Speed limit

**AIM:**  
You are going to learn about ways in which traffic can be slowed down.

No.	Traffic calming measure	How does it work?
1	Speed hump	This forces cars to slow down as driving over one too fast is very uncomfortable.
2	Safety camera	This takes pictures of speeding motorists who can then be prosecuted by the police.
3	Traffic island	This helps pedestrians cross the road safely and can stop drivers overtaking.
4	Mini-roundabout	Drivers have to slow down to drive around them and have to watch out for other cars which may have the right of way.
5	Chicane	The road is narrowed on one side of the road. Further along it is narrow on the other side, forcing drivers to slow down to get through.
6	Pinch point	This narrows the road and makes drivers slow down to drive through one.
7	Speed limit	Every road has a speed limit. Drivers exceeding the limit can be prosecuted by the police.

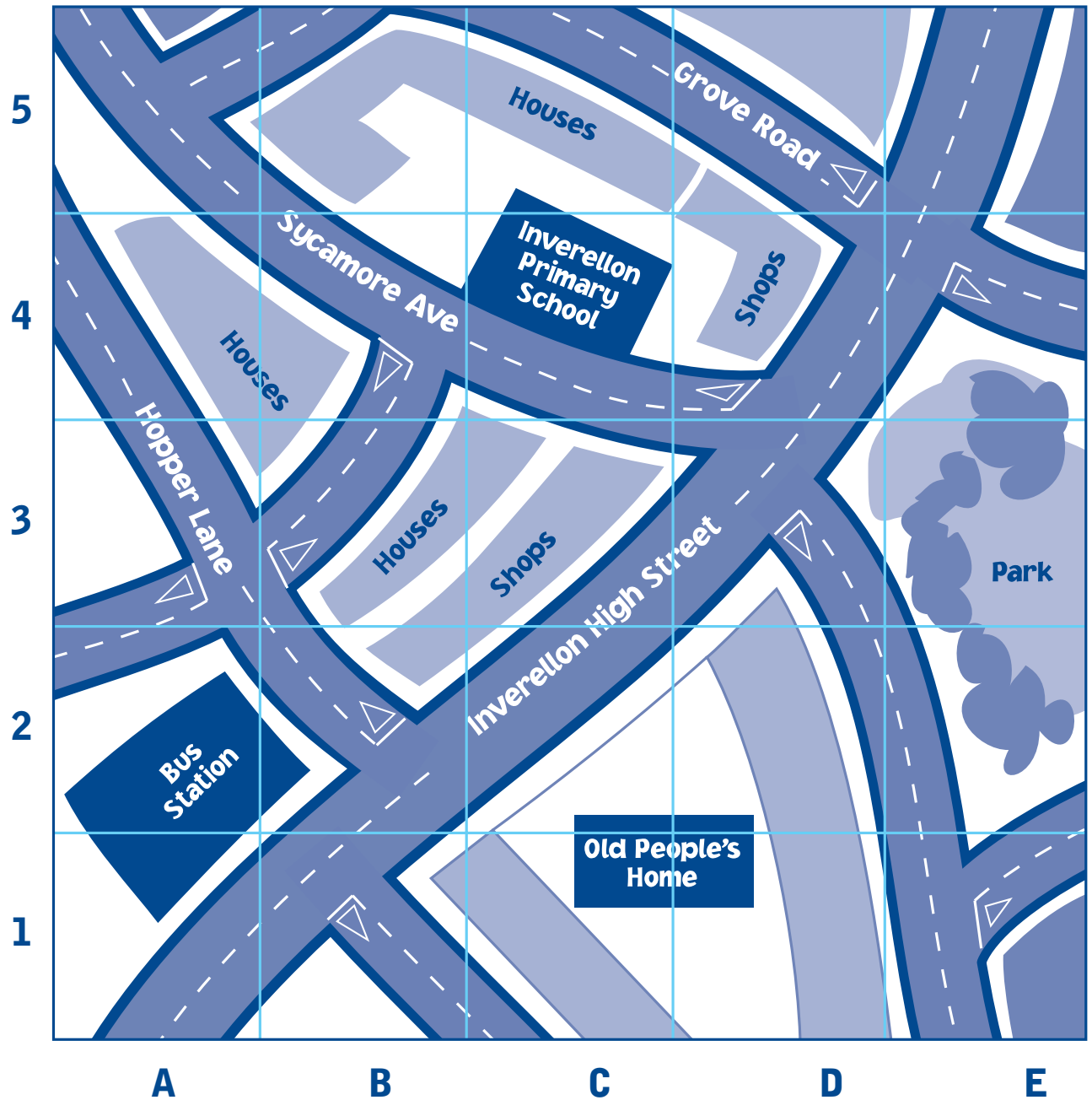
## EXTRA

- ➡ Which traffic calming measure do you think is the most effective? Explain your answer.
- ➡ What traffic calming measures do you have near your school or home?
- ➡ Do you think they work? Give reasons.



Names:

Date:



## TASK

The map shows the centre of Inverellon. You are working for the local council and have the task of solving several traffic related problems. See Sheet D4d for details.

**GOOD LUCK!**



## INVERELLON The Problems

Cars are driving too fast down Inverellon High Street

In square B2 there is a dangerous junction.

There is a problem in square C2. Think what it might be.

Sycamore Avenue has a problem with cars taking a shortcut to the High Street and with parking outside the school.

Shoppers in B2, C2, C3 and D3 have problems with traffic.

### TASK

- ➔ Inverellon has several problems relating to traffic. Working for the local council, you have to try and solve these problems by putting in place traffic calming measures and engineering measures.
- ➔ Cut out the traffic calming measures and engineering measures below and stick them onto your map of Inverellon where you think they will best solve these problems. You do not need to use all of them.
- ➔ Remember drivers need to make progress. Also, emergency vehicles need free access to certain areas.
- ➔ Be prepared to justify your decisions to the rest of the class.

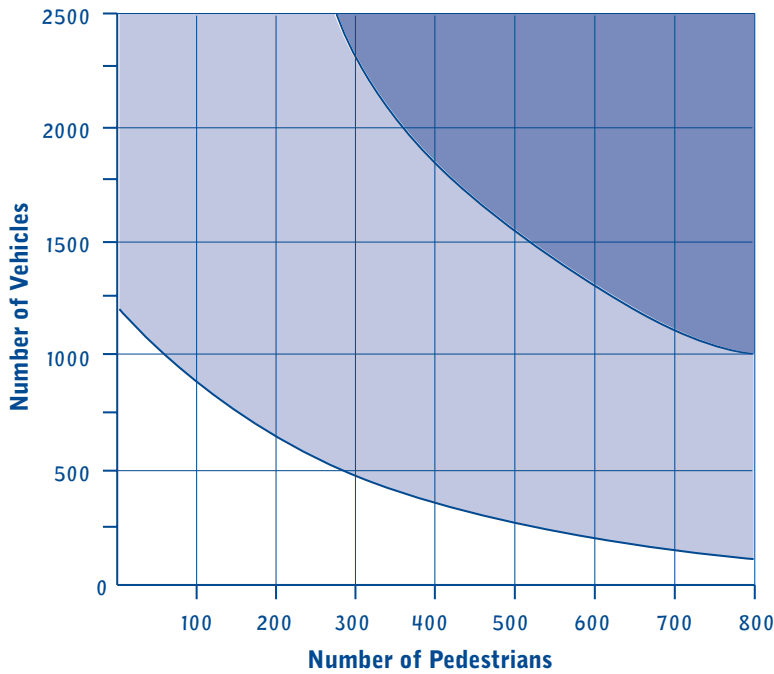


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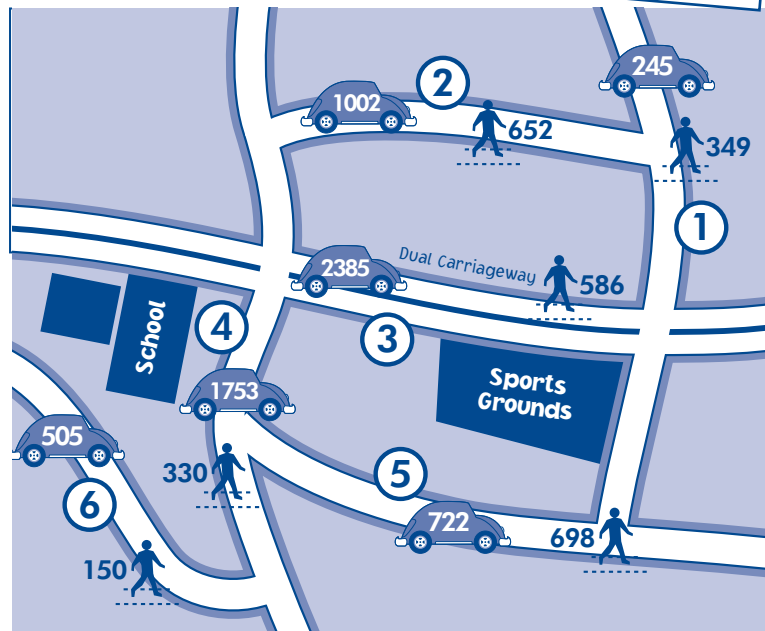
Date: \_\_\_\_\_

**AIM: You are going to learn about engineering measures.**

Appropriate Road Engineering Measures



Graph Key	
	Subway to be built
	Pelican crossing to be built
	No crossing needed



Map Key	
	Number of pedestrians using the road.
	Number of vehicles using the road.

## TASK

- ➔ The graph above shows the appropriate engineering measure depending on the number of pedestrians and the amount of traffic.
- ➔ For each of the 6 roads on the map, decide which is the appropriate engineering measure and show it in the table.

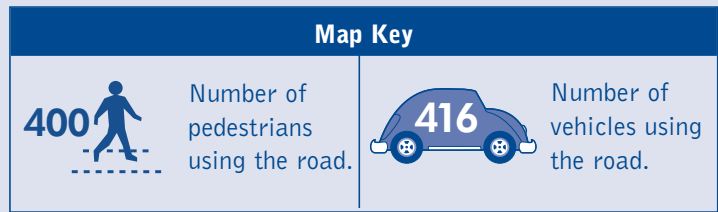
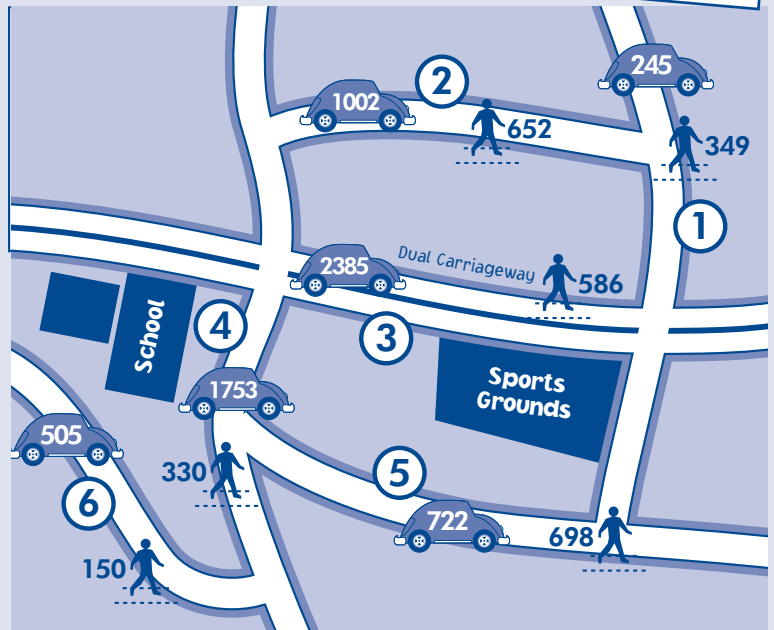
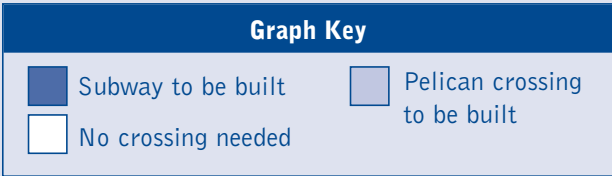
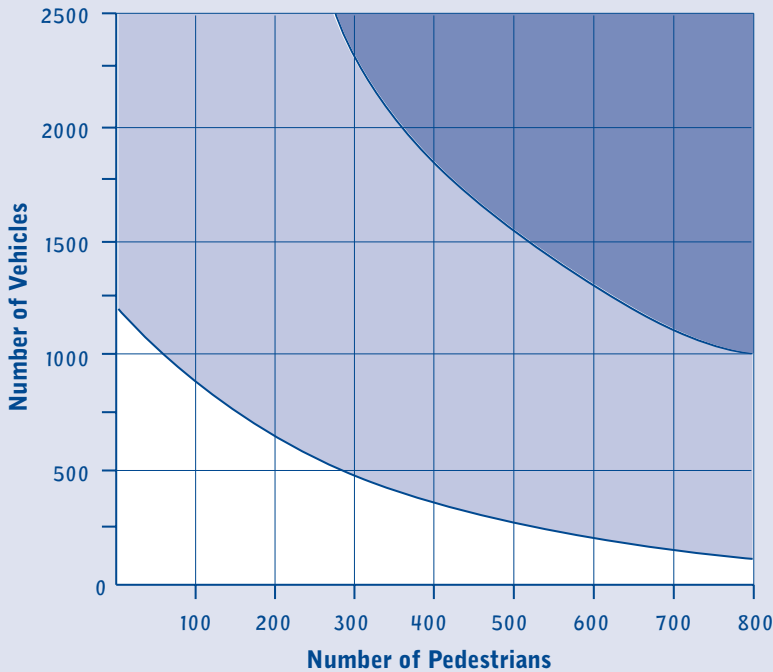


No.	Number of pedestrians	Number of vehicles	Appropriate engineering measure
1			
2			
3			
4			
5			
6			

# Pupil Activities Answers

**AIM: You are going to learn about engineering measures.**

Appropriate Road Engineering Measures



**TASK** ➡ The graph above shows the appropriate engineering measure depending on the number of pedestrians and the amount of traffic.

➡ For each of the 6 roads on the map, decide which is the appropriate engineering measure and show it in the table.

No.	Number of pedestrians	Number of vehicles	Appropriate engineering measure
1	349	245	No crossing needed
2	652	1002	Pelican crossing
3	586	2385	Subway
4	330	1753	Pelican crossing
5	698	722	Pelican crossing
6	150	505	No crossing needed