

The need for a system of car control

This chapter explains the system of car control used in police driver training and outlines the tactical knowledge and skills that will enhance your ability to master a wide range of traffic situations.

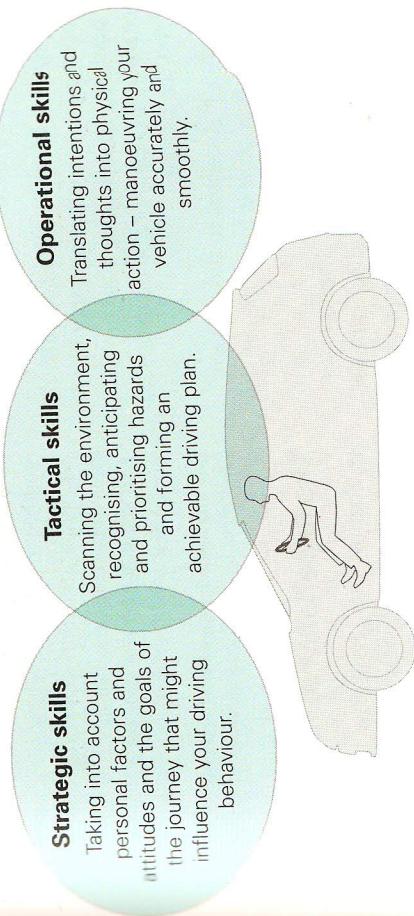
Driver error is a feature of nearly all collisions on the road. The system of car control aims to prevent collisions by providing a systematic approach to hazards. It is a decision-making process that enables you to efficiently handle and act on information that is continuously changing as you drive.

Using the system gives you more time to react, which is vital in complex and demanding driving situations.

If you use the system consistently with the thinking, observation and anticipation skills discussed in Chapters 1 and 2, it will help you anticipate dangers caused by other road users and avoid collisions. Your progress will be steady and unobtrusive – the sign of a skilful driver.

Driving skills and knowledge
As you saw in Chapters 1 and 2, driving requires more than just the ability to handle your vehicle. Developing your understanding of traffic situations and your ability to read the road – the 'situational awareness' skills explored in Chapters 1 and 2 – is essential. Many hazards that drivers meet are unpredictable and the system gives you a methodical way of applying thinking, observation and anticipation skills, so that you can recognise and negotiate hazards safely.

See Chapter 1, *Mental skills for better driving*, and Chapter 2, *Observation and anticipation*.



What is the system of car control?

In using these skills you need to take into account:

- your driving abilities and limitations
- the behaviour of other road users
- the prevailing weather and road conditions
- the capabilities of the vehicle.

The system of car control is a simple and consistent approach to dealing with a constantly changing driving environment. The system increases your safety by giving you time to react to hazards.

A hazard is anything which is an actual or potential danger

See Chapter 2, *Observation and anticipation*, page 20.

- The system of car control is a way of approaching and negotiating hazards that is methodical, safe and leaves nothing to chance. It involves careful observation, early anticipation and planning and a systematic use of the controls to maintain your vehicle's stability in all situations.
- Driving hazards fluctuate: they come singly and in clusters, they overlap and change all the time. The system takes account of this continual flux because:
- it has a centrally flexible element – you, the driver
 - it draws together all levels of driving skill into a logical sequence of actions to help you deal with hazards and respond to new ones safely and efficiently.

How the system works

The system of car control consists of processing information and four phases

- position, speed, gear and acceleration. Each phase develops out of the one before.

Information is central to the system

- it runs through and feeds into all the phases. Start by asking:

- what information do I need to gather about the road conditions, the behaviour of other road users and actual and potential dangers?
- what do other road users need to know about my intentions?

Then work through each of the phases in turn. As road conditions change, you'll need to process new information

and this will mean re-entering the system at an appropriate point, then continuing through it in sequence. If a new hazard arises, reapply the system and consider all the phases in sequence.

See this chapter, pages 52–57 and Chapter 9, *Overtaking*, page 136 for examples of this principle.

The importance of information

In Chapter 1 you saw how the brain processes information and how your ability to process information is essential to becoming a better driver.

See Chapter 1, *Mental skills for better driving*.

Processing information (taking, using and giving information) introduces the system and continues throughout.

You need to:

- take and use information to plan your driving
- give information whenever other road users could benefit from it.

Develop your skill at assessing the continuous flow of information. This skill underpins the entire system and enables you to adapt it to changes in road circumstances.

See Chapter 6, *Driver's signals*.

Taking and giving information: mirrors and signals

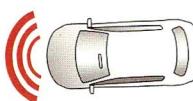
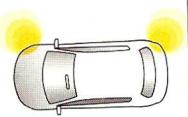
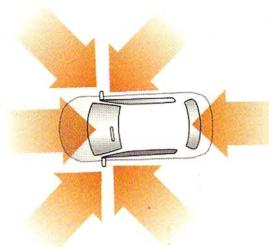
Take information:

Whenever you consider changing position or speed, always check first what is happening to the front, sides and behind you. You must check your mirrors at this point.

Give information:

- Signal whenever it could benefit another road user.

Taking, using and giving **information** is the process on which the other phases – **position, speed, gear, acceleration** – depend.



Information



The system of car control

Information

Processing information runs throughout all phases of the system.

The system of car control is set out in detail here. Use this information in conjunction with the other chapters in *Roadcraft* for a complete understanding of the system. When and how you read each chapter depends on your own study plan. If you are using *Roadcraft* as part of a course, ask your instructor for advice.

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Take information
Look all round you. Scan to the front and sides. Use your mirrors at appropriate points in the system.

See Chapter 2, *Observation and anticipation*.

Use information

Use information to plan how to deal with the hazards you identify. Use the system to decide on your next action. If new hazards arise, consider whether to re-run the system from an earlier phase.

See Chapter 2, *Observation and anticipation*, page 21, Planning.

Give information

Give a signal if it could help other road users – including pedestrians and cyclists: use indicators, the horn or flash your lights. The earlier your warning signal, the greater the benefit.

Be aware that the position of your vehicle gives valuable information to other road users.

See Chapter 6, *Driver's signals*.

Position

The system of car control

Brake/gear overlap should only be used in specific circumstances. It must be part of a planned approach that is the most appropriate for the circumstances. Please turn to Chapter 4 page 69 for a full discussion of this point.

Acceleration

Apply the correct degree of acceleration to negotiate and leave the hazard safely. Use the accelerator to maintain speed and stability through the hazard. Depress the accelerator sufficiently to offset any loss of speed due to cornering forces.

See Chapter 4, *Acceleration, using gears, braking and steering*.

Use your anticipation skills so that you make all adjustments in speed smoothly and steadily.

Please turn to Chapter 4 page 69 for a full discussion of this point.

Gear

Once you have the correct speed for the circumstances, engage the appropriate gear for that speed.

See Chapter 4, *Acceleration, using gears, braking and steering*, page 66.

Continuously assessing information runs through every phase of the system

Use the system flexibly

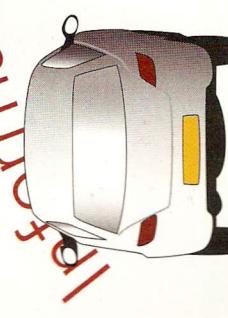
The system works if you use it intelligently and proactively and adapt it to circumstances as they arise:

- consider all phases of the system on the approach to every hazard, but you may not need to use every phase in a particular situation

- take, use and give information throughout to constantly reassess your plans
- be ready to return to an earlier phase of the system as new hazards arise.

Information
Acceleration
Gear
Speed
Position

Information
Gear
Speed
Position



With practice, the system will become second nature and form a sound basis for developing the finer points of your driving skill. It will help you process information, make decisions and plan your approach to hazards so that you are able to avoid or give yourself plenty of time to react to potential dangers.

See Chapter 1, *Mental skills for better driving*, page 4.

We now look at how you can apply the system to four common hazards: a right-hand turn, a left-hand turn, a roundabout and a child on the pavement. (Before looking at these examples, make sure you know thoroughly the Highway Code advice on road junctions and roundabouts.)

See Chapter 1, *Mental skills for better driving*, page 4.

Applying the system to a right-hand turn

Information

Use your mirrors throughout. Look to the front and sides to know the position and anticipate the intentions of other road users. Give a signal at any point where this could help other road users – including pedestrians and cyclists.

Applying the system

When you begin using the system, it may help to name each phase out loud as you enter it. After you practise using the system, review your performance:

- Do you take, use and give information throughout all phases?
- Do you consider each phase?
- Do you think about all aspects of each phase?
- Do you work systematically through the phases?

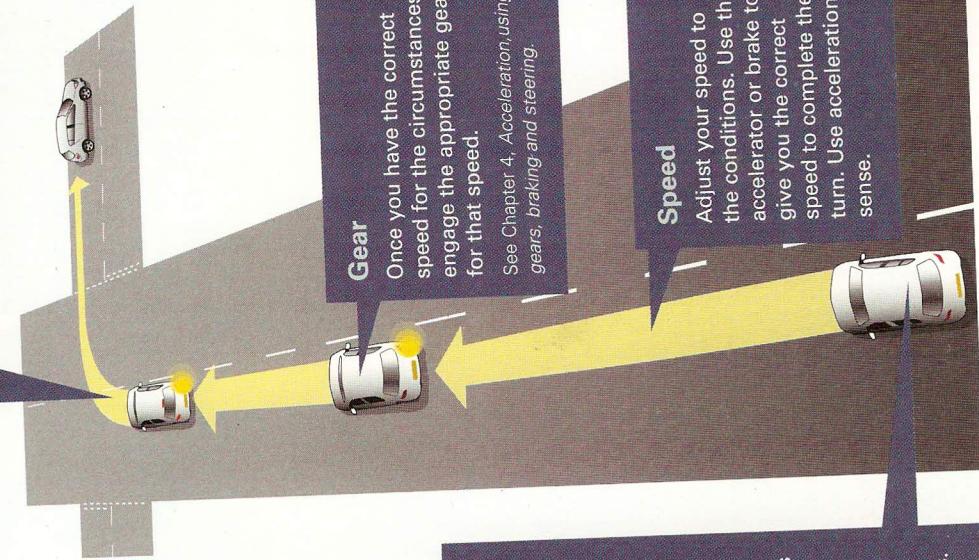
Where you have identified problems in using the system, work through them one by one, solving the first before you go on to the next.

Also think about mental factors that might create difficulties in using the system, such as anxiety or tiredness. If the purpose of a particular journey is likely to distract you, consider making a running commentary to help you to focus on working through the system.

Acceleration

Depress the accelerator to maintain road speed round the corner. Choose the appropriate point to accelerate safely and smoothly away from the hazard, paying attention to the amount of acceleration, the nature of the road and road surface, traffic conditions ahead, and the position and movement of other road users.

See Chapter 4, *Acceleration, using gears, braking and steering*.



Information

Use your mirrors

throughout. Look to the front and sides to know the position and anticipate the intentions of other road users. Give a signal at any point where this could help other road users – including

pedestrians and cyclists.

Gear

Once you have the correct speed for the circumstances, engage the appropriate gear for that speed.
See Chapter 4, *Acceleration, using gears, braking and steering*.

Speed

Adjust your speed to the conditions. Use the accelerator or brake to give you the correct speed to complete the turn. Use acceleration sense.

Position

Alter your position to make the turn in good time. The usual position would be towards the centre of the road, but think about:

- the width of the road
- lane markings
- hazards in the road
- the speed, size and position of other vehicles
- the flow of traffic behind you

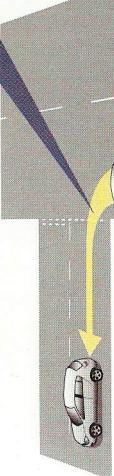
• getting a good view

- making your intentions clear to other road users.

Applying the system to a left-hand turn

Information

Use your mirrors throughout. Look to the front and sides to know the position and anticipate the intentions of other road users. Give a signal at any point where this could help other road users – including pedestrians and cyclists.

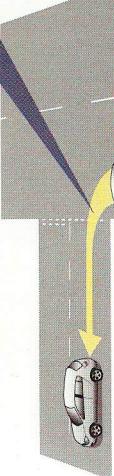


Know what is going on all around you, and let other road users know what you intend to do. You must take, use and give information before you change speed or direction.

Acceleration

Depress the accelerator to maintain road speed round the corner. Choose the appropriate point to accelerate safely and smoothly away from the hazard, paying attention to the amount of acceleration, the nature of the road and road surface, traffic conditions ahead, and the position and movement of other road users.

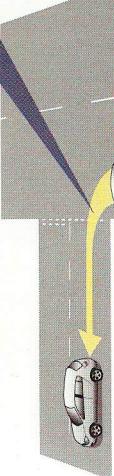
See Chapter 4, page 64 for more information about accelerating out of a bend.



Gear

Once you have the correct speed for the circumstances, engage the appropriate gear for that speed.

See Chapter 4, page 69 for further discussion of braking and gear changing on a left-hand turn.



As you approach the roundabout be prepared to stop, but look for your opportunity to go.

Speed

Adjust your speed to the conditions. Use the accelerator or brake to give you the correct speed to complete the turn. Use acceleration sense.

Generally a left turn is slower than a right because the turning arc is tighter.



Position
Take a position towards the left of the road. Adapt to the road and traffic conditions.

Acceleration

Choose an appropriate gap in the traffic to accelerate safely and smoothly onto the roundabout without disrupting traffic already using it. When you are on the roundabout, deal with any new hazards using the appropriate phases of the system.

Identify hazards. Scan to the front, sides and rear. Use your mirrors and consider a shoulder check.

Decide early which exit to take and in which lane to approach the roundabout.

Give a signal when it could benefit other road users.

Take an early view of traffic on the roundabout and approaching it from other entrances.

As you approach the roundabout be prepared to stop, but look for your opportunity to go.

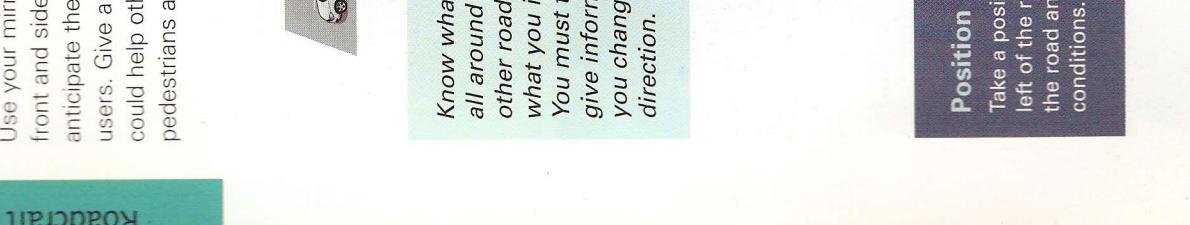
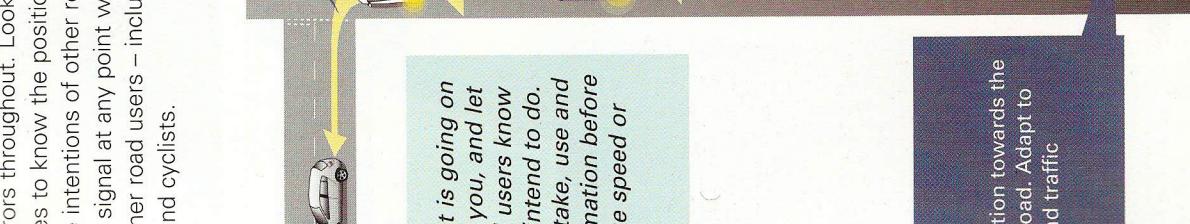
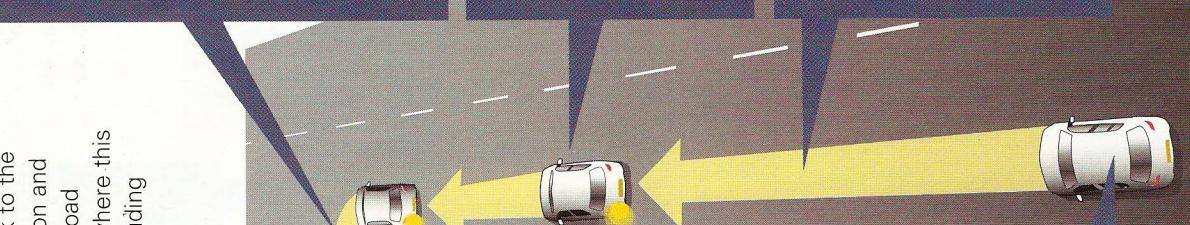
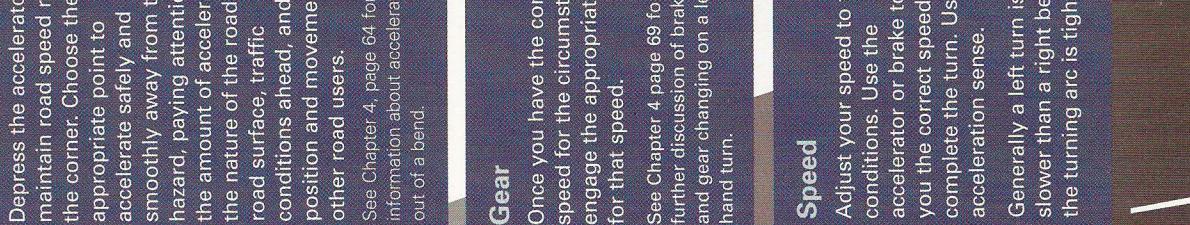
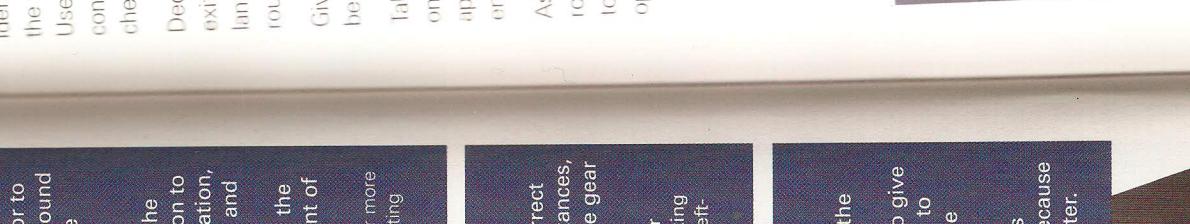
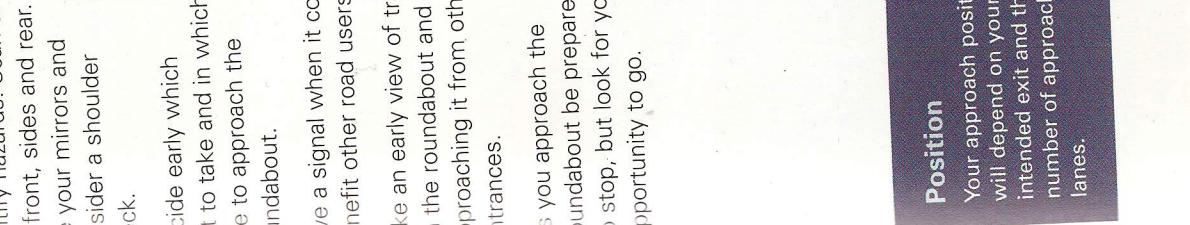
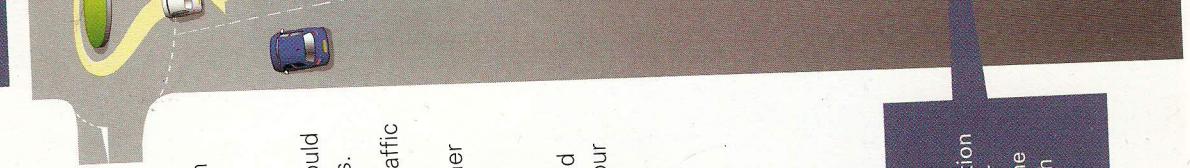
Speed

Adjust your speed to the conditions. Use the accelerator or brake to give you the correct speed to approach the roundabout. Use acceleration sense.

Plan to stop, but look to go.

Position

Your approach position will depend on your intended exit and the number of approach lanes.



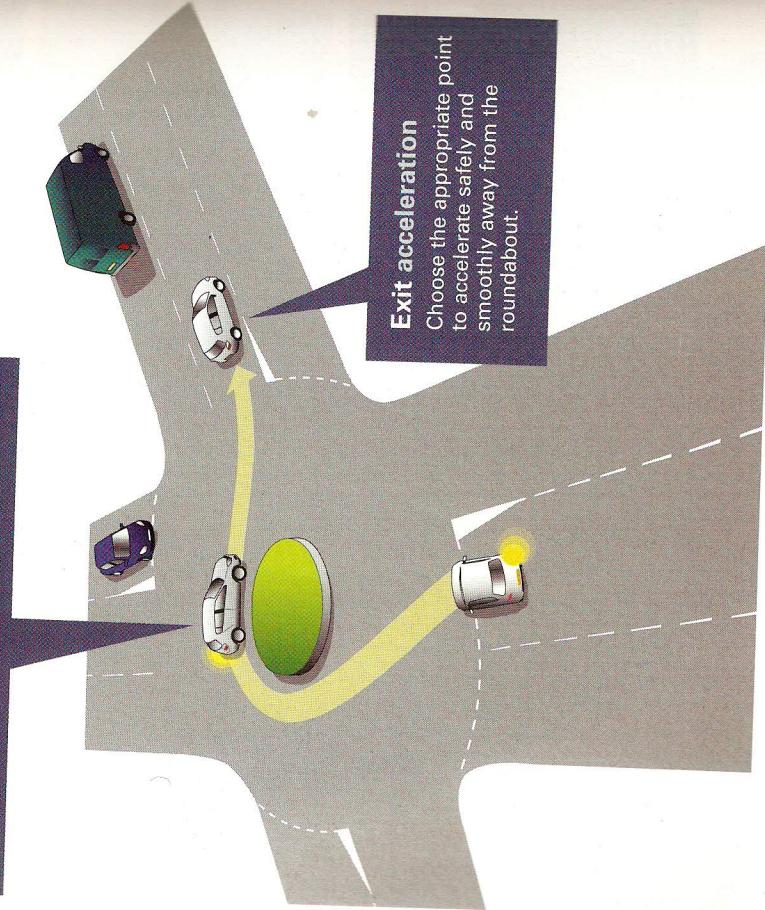
Reapplying the system to leave the roundabout

Information

As you leave the roundabout, reapply the system. Plan the appropriate lane for your exit. If you need to move into the left-hand lane, check that your nearside road space is clear. Use your nearside mirror and check your blind spot. Signal left if it could benefit other road users.

Exit position

If there is more than one exit lane, choose the most appropriate taking into account the position of other exiting vehicles. Move over in plenty of time for your exit.



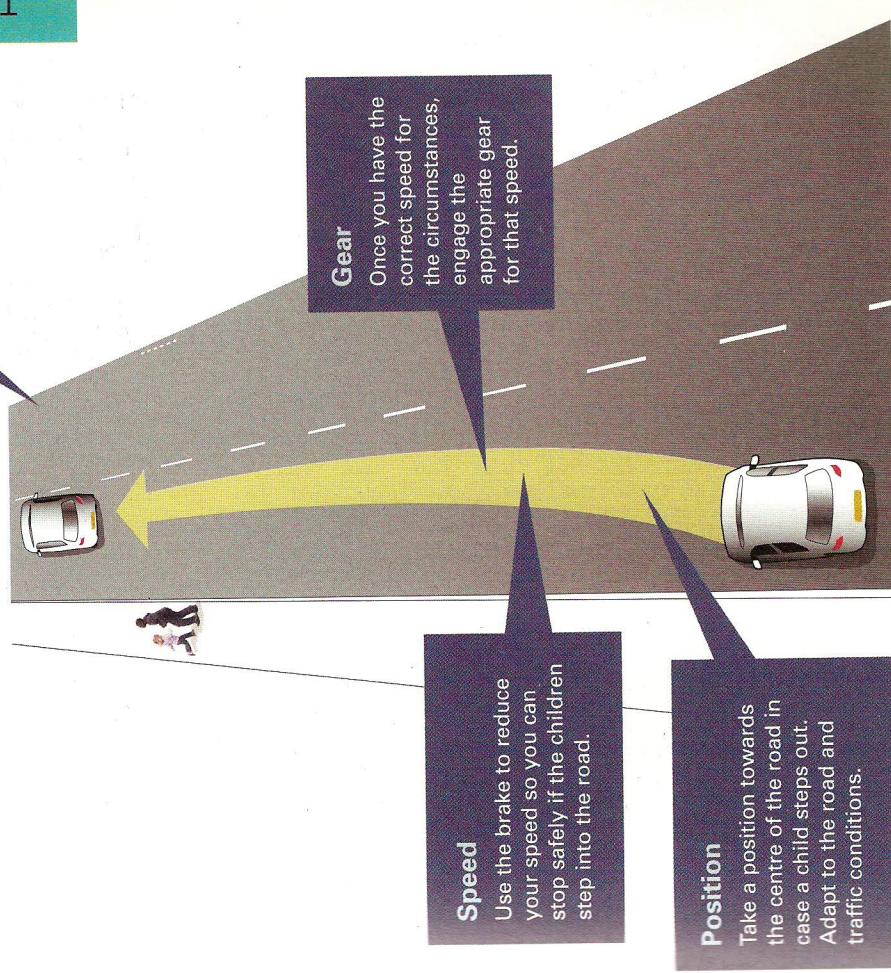
Applying the system to a footpath hazard

Information

Use your mirrors throughout. Look to the front and sides to know the position and anticipate the intentions of other road users. Give a signal at any point where this could help other road users including pedestrians and cyclists.

Acceleration

Accelerate safely and smoothly away once you have passed the hazard.



Gear

Once you have the correct speed for the circumstances, engage the appropriate gear for that speed.

Speed

Use the brake to reduce your speed so you can stop safely if the children step into the road.

Position

Take a position towards the centre of the road in case a child steps out. Adapt to the road and traffic conditions.

Review

In this chapter we have looked at:

- the system of car control
- applying the system to some common hazards.

Check your understanding



What is a hazard?

How does the system of car control increase the safety of your driving?

What are the elements of the system of car control?

Which is the central part of the system and why?

What are the main ways in which you can give information to other road users?

When should you consider giving a signal?

How should you decide which gear to select?

Why is it vital to use the system flexibly?

If you have difficulty in answering any of these questions, look back over the relevant part of this chapter to refresh your memory.

Chapter 4 Acceleration, using gears, braking and steering

Use this chapter to find out about:

- tyre grip
- vehicle balance
- accelerating
- using the gears
- braking
- steering.