

Driving lesson 1. Getting moving

Introduction

Before you can begin to learn to drive you must make sure you have a valid provisional driving licence and are physically fit.

The main legal requirement in respect of this is your eyesight. You must be able to read a new style car number plate at a distance of 20.5 metres – about 5 car lengths – with glasses or contact lenses, if normally worn.

Lesson aims and objectives

The main aim of the first driving lesson is to get you moving. To achieve this you will need to learn about the function of the controls, pre-start comfort and safety (the cockpit drill), precautions before starting the engine, moving off and stopping.

By the end of driving lesson 1 you should be able to:

- Meet the necessary eyesight requirements;
- Enter and leave the car safely;
- Name, and explain the function of the main hand and foot controls;
- Complete the necessary pre-driving checks;
- Make the appropriate observation checks before moving off and stopping;
- Move away safely and under control, making proper use of the accelerator, clutch and handbrake;
- Use the indicator switch and understand the basic use of direction indicators when moving
- Use the MSM routine when stopping.

Subject brief

The main controls

The first controls that you learn about are the 'main' foot and hand controls.

The accelerator pedal



The accelerator, or gas pedal, is used with the right foot to control the speed of the car by increasing or decreasing the flow of fuel to the engine. This occurs when the car is in gear and the clutch plates are together. The pedal requires very little pressure to operate and should be used very lightly.

The foot brake



The foot brake operates brakes on all four wheels and is used to slow the car down. It is operated by swivelling the right foot from the accelerator pedal to the foot brake

Driving lesson 2. Gears

Introduction

Smooth gear changing is the first of three key foundation skills you need to learn, the others being steering and clutch control. Before moving onto Road Skills, part 2 of the Learner Driving programme, it is vitally important that these three foundation skills become second nature to you.

Lesson aims and objectives

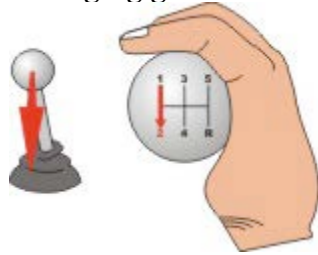
During this driving lesson you will learn how to make progress by using the gears correctly.

By the end of driving lesson 2 you should be able to:

- Make upward gear changes, in sequence, 1 through to 5;
- Make downward gear changes, in sequence, 5 through to 1;
- Make upward selective gear changes;
- Make downward selective gear changes;
- Maintain a straight course and look well ahead whilst changing gear.

Subject brief

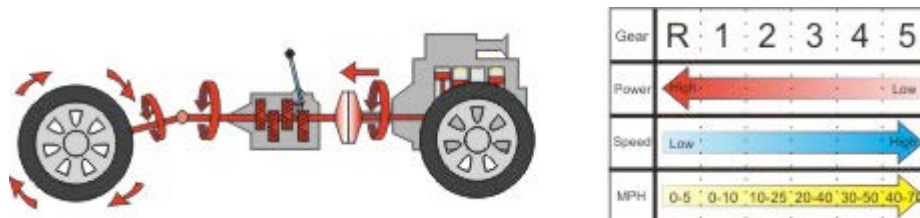
Changing gears



Gears can be changed up or down. This has nothing to do with the direction you move the gear lever, it simply means that you change to a higher gear (4 or 5) or a lower gear (1 or 2).

The basic rule is that you change up through the gears as the speed of the car increases and down when you need more power from the engine. For example, you would change down to a lower gear when climbing a hill or pulling away at low speed.

The gears determine the amount of power available from the engine.



First gear provides the most pulling power but the least potential for speed, whilst fifth gear which provides the least pulling power allows the greatest range of speed.

The basic gear changing rule is '**brakes to slow - gears to go**'. As the car increases speed, change up through the gears. When you want to slow down, use the foot brake. You need only change to a lower gear when you need the accelerator again to 'drive' the car.

Selective gear changing

Selective gear changing means you sometimes miss out gears, for example, by changing from fifth or fourth gear to second gear. This method is called 'selective' or 'block' gear changing.



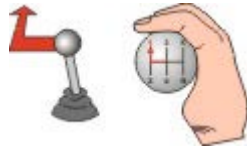
There are also times when you might selectively change up, for example if you have used a lower gear such as third for better acceleration you might be able to change to fifth gear when you have reached your intended cruising speed.

Palming method

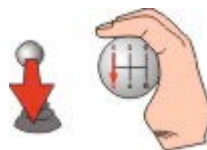
To operate the gear lever we use a method known as 'palming'. You can practice this when the car is stationary and the engine is switched off, but make sure that you keep the clutch pedal pressed down to the floor.



The gear lever will automatically spring to the central neutral position when not in a gear. This is very useful when trying to find and select third or fourth gear.

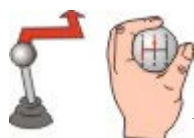


To select first gear place your left hand onto the gear lever, palm away from you. Cup your hand around the gear lever and move it across to the left and forward.



To move from first to second gear keep your hand on the gear lever, palm away from you, apply slight pressure to the left to stop the gear

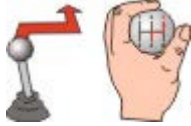
lever springing back to the central neutral position, and move the gear lever straight back.



Now move your hand so that your palm is facing you, cupping the gear lever. Move the gear lever forward, allow it to spring into the central neutral position then move it forward to select third gear.





Keeping your hand in the same position, move the gear lever straight back to select fourth gear.



To select fifth gear keep your hand in the same position and move the gear lever forwards, across to the right against the neutral spring and forwards.

How to change gear

The correct sequence for changing gear is as follows:

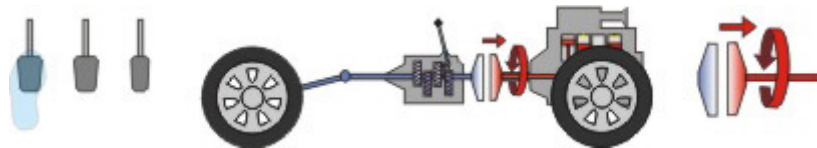
1.  Make sure that it is safe to change gear. Any place where it is necessary to use both hands to steer the car, such as a corner or bend would not be suitable.
2. Next, ease off the accelerator pedal just prior to depressing the clutch pedal. The two actions are almost simultaneous.
3.  Select the appropriate gear using your left hand while being careful to look ahead and not at the gear lever.
4. Release the clutch pedal just prior to reapplying pressure to the accelerator pedal with your right foot. Again the two actions are almost simultaneous.

This will dramatically reduce the power being transmitted from the engine to the gearbox, enabling you to select a gear without causing any damage to the gear mechanism.

Highway Code study

Rule: 122

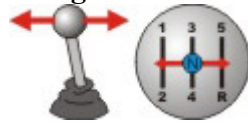
while trying to keep your heel on the floor. The pedal should be pressed progressively firmer then as you reach the required speed smoothly released (i.e. squeeze and ease). When you press this pedal the brake lights at the back of the car come on to warn other drivers that you are slowing down or stopping.



The clutch pedal

The clutch pedal is used with the left foot to break the link between the engine and the wheels by separating the clutch plates. You use it when changing gear and stopping. To operate the pedal press it firmly as far as it will go and then release it slowly and smoothly.

The gear lever



The gear lever is used with the clutch to select the gears.

There are usually five forward gears and one reverse gear. Between the gears there is a central position called 'neutral'. When the lever is in this position, no gear is selected.

The handbrake



The handbrake is used to hold the car still after it has stopped.

Because the handbrake is only connected to two wheels it should not be used when the car is moving. To apply the handbrake press the button with your thumb and pull the lever upwards as far as it will go and then release the button. To release the handbrake press the button in and push the lever down.



The steering wheel

The steering wheel is used to turn the front wheels when changing direction. You should normally hold the wheel with your hands in the 'ten to two position' or the 'quarter to three position'. Most control is gained when the 'pull and push' method (covered later) is used to turn the wheel.



The indicators

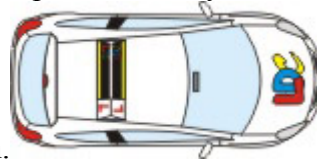
The indicator stalk is usually located to either side of the steering wheel, it is designed for fingertip control. To signal simply move the stalk in the same direction as the steering wheel turns for the manoeuvre.

The Cockpit drill

The cockpit drill is a simple sequence of actions that must be carried out each time you sit behind the driving wheel. However, before you start this drill make sure the car is secure by checking the handbrake is on.

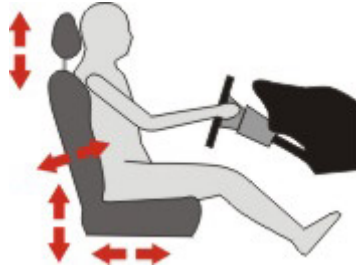
Doors

Make sure that all doors are firmly shut. Take special care if you are carrying



children, use child locks if your car has them.

Seat



Adjust the base of your seat so that you can operate the foot pedals easily.

Adjust the base of your seat so that you can operate the

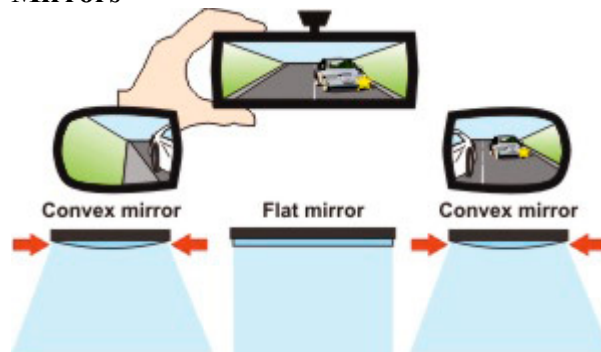
foot pedals easily. Firstly, ensure that you can depress the clutch pedal fully while not over stretching your left leg.

Secondly, if the base of the seat can be raised up and down adjust it until you can get a good view of the road ahead.

Thirdly, adjust the backrest of your seat so that you can reach all of the steering wheel with your arms slightly bent.

In some cars the steering wheel can be adjusted up, down, in or out. Use this adjustment in combination with the back rest. Fourthly, make sure that the head restraint is adjusted correctly to protect your neck and spine.

Mirrors

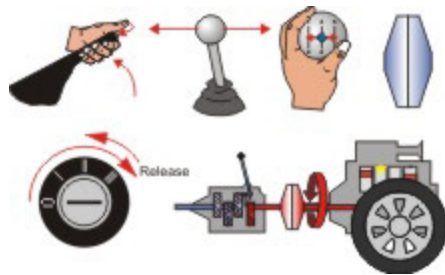


Adjust all of your mirrors so that you can obtain a clear view of the road behind and to each side of your vehicle. Use your left hand to adjust the interior mirror to frame the back window and be careful not to touch the surface of the mirrors with your fingers. If the vehicle is new to you check which mirrors are convex i.e. curved to give a wider field of vision. A convex mirror

will make the image in the mirror **appear smaller** than it actually is and therefore further away.

Seatbelts

Fasten your seatbelt being careful not to twist the straps and make sure that your passengers fasten theirs too. The driver is responsible for ensuring that all children under the age of 14 wear seat belts or use an approved child restraint. Full details about seatbelt laws can be found in the Highway Code.



Switching the engine on and off

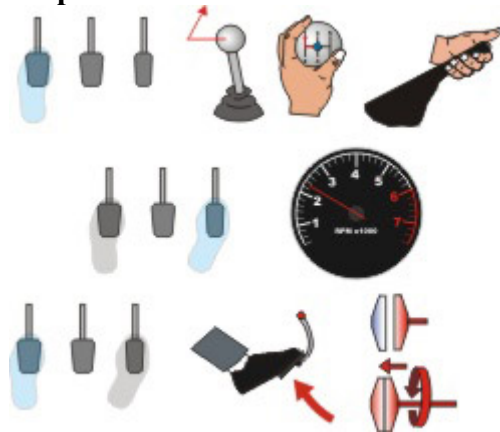
Before starting the engine you should check that the handbrake is on and that the gear lever is in neutral.

Turn the ignition key and immediately release it as the engine starts (to avoid damaging the starter motor).

Moving off and stopping

Moving off is easy so long as you follow the **POM** (Prepare, Observe, Move) routine. Once you have started the engine and prepared the car to move use the **MSM** (Mirrors, Signal, Manoeuvre) routine as you start to move.

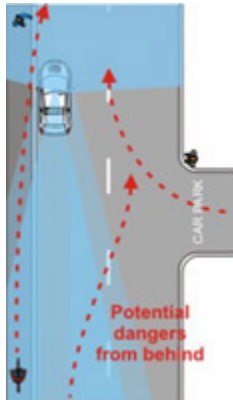
Prepare



Make sure the car is ready to move

1. Press the clutch down as far as it will go.
2. Select first gear.
3. Rest your left hand on the handbrake.
4. 'Set the gas'. Press the accelerator pedal slightly until the engine makes a lively humming sound and then hold it still. You are trying to generate sufficient power to move the car once the handbrake is released and the clutch pedal comes up.

5. Slowly bring the clutch up until the sound of the engine drops slightly and then keep both feet still, this is called the 'biting point'.



Observe (Mirrors and Signal)

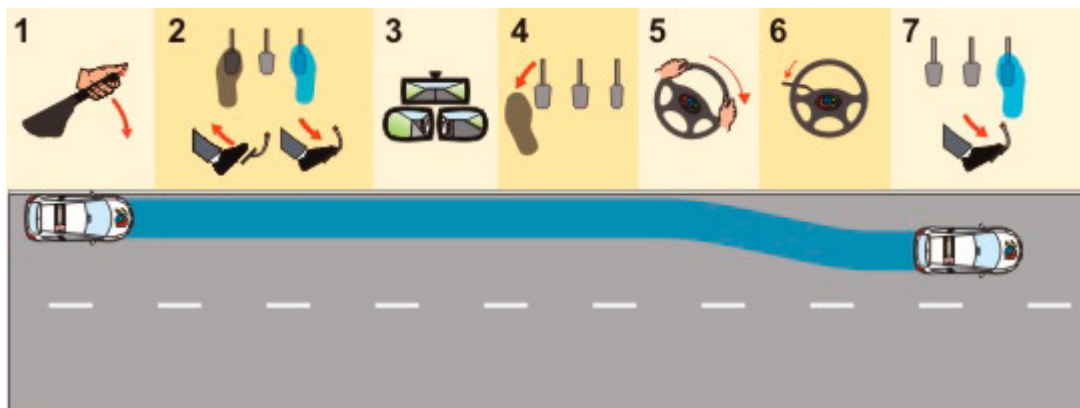
Make sure it is safe to move

1. Take observations all around your vehicle and check your mirrors in the following sequence:
 1. Left (nearside) mirror
 2. Interior mirror
 3. Look ahead
 4. Right (offside) mirror
2. Is it safe to proceed? Look over your right shoulder to check your right blind-spot. You are looking for potential dangers from other road users.
3. Signal, if anyone will benefit and return your hand to the handbrake.

Move (Manoeuvre)

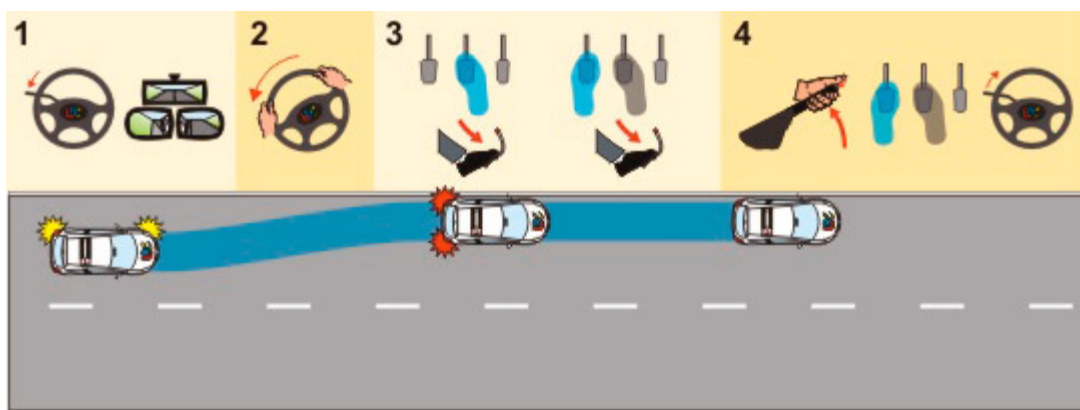
Move the car into the correct driving position

1. When you are sure it is safe to move, release the handbrake.
2. Bring the clutch up smoothly all the way as you gently press the accelerator to move the car forward.
3. As the car starts to move check your interior mirror and right door mirror.
4. Move your left foot away from the clutch pedal and rest it on the floor.
5. Steer to your normal driving position, about a metre from the kerb.
6. Cancel your signal, if you applied one.
7. Press the gas pedal to pick up speed and look well ahead.



Stopping

1. Apply the **Mirrors, Signal, Manoeuvre** routine for stopping. Check your interior mirror and left door mirror to ensure it is safe, signal if it will benefit anyone.
2. Steer closer and parallel to the kerb.
3. Press the brake pedal progressively firmer and just before the car stops begin to ease off and depress the clutch pedal fully.
4. Finally, make the care safe:
Apply the handbrake
Select neutral
Remove your feet from the pedals
Cancel your signal if you applied one.



Highway Code Study

Rules: 92, 97, 99 - 104, 117, 159 - 161 and 243.

Driving lesson 3. Steering

Introduction

While it is relatively easy to make slight steering adjustments many manoeuvres require you to turn the car sharply to either the left or to the right. To do this effectively you need to learn the 'pull-push' method of steering.

It is also important when driving an unfamiliar car for the first time that you locate all the ancillary controls before starting your journey.

Lesson aims and objectives

During this driving lesson you will learn how to keep your car on course and use the pull-push method of steering to turn corners. You will also learn to locate and use the ancillary controls of the vehicle.

By the end of the driving lesson you should be able to:

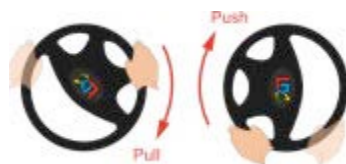
- Use the 'look where you want the car to go' method of staying on course;
- Use the 'pull - push' method of steering and complete the following exercises in a quiet car-park:
 - Sharp turns to the left,
 - Sharp turns to the right,
 - U-turns,
 - Figure of eight turns;
- Steer accurately when moving off, passing obstructions and turning corners;
- Locate and use the ancillary controls of the car.

Subject brief



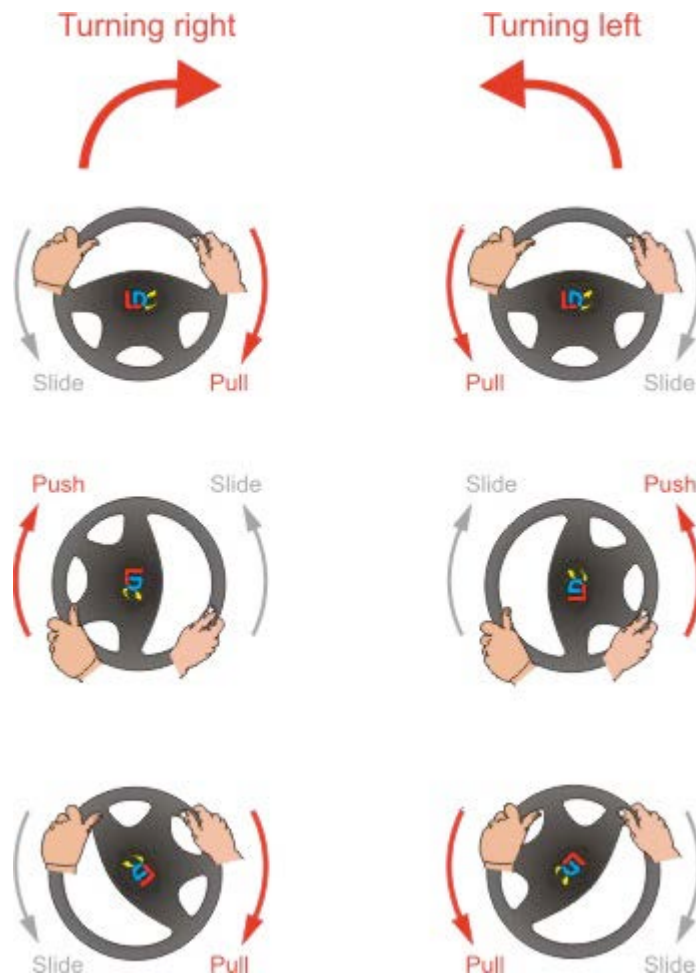
Steering

What is probably the most important rule about steering may not seem obvious. When driving you not only steer with your hands, but also with your eyes. You do this by looking where you want the car to go, this in turn will tell your brain what to do with your hands and steer accordingly. Your peripheral vision (i.e. your vision to the sides) helps you to keep your road position.



Pull-push method

This method ensures that you keep both hands in contact with the wheel at all times and that the wheel is never allowed to spin out of control. Once the wheels are fully turned left or right this is known as full lock.



The procedure for turning full lock to the right:

1. Pull the steering wheel down with your right hand whilst sliding your left hand down.
2. Push the steering wheel up with your left hand whilst sliding your right hand up.
3. Pull the steering wheel down with your right hand whilst sliding your left hand down.
4. Repeat the previous steps until full lock is achieved or you have steered sufficiently for your intended manoeuvre.

The procedure for turning full lock to the left:

1. Pull the steering wheel down with your left hand whilst sliding your right hand down.
2. Push the steering wheel up with your right hand whilst sliding your left hand up.
3. Pull the steering wheel down with your left hand whilst sliding your right hand down.
4. Repeat the previous steps until full lock is achieved or you have steered sufficiently for your intended manoeuvre.

Ancillary controls



Horn

The horn is usually located either in the middle of the steering wheel or on the end of a stalk. Rules for the use of the horn can be found in the Highway Code.

Lights

The light switches are usually on a stalk or a separate switch on the dashboard. There are three settings for the lights.



Sidelights - these can be used when leaving your car parked at night.

Dipped headlights - these should be used whenever visibility is reduced and during the hours of darkness.

Full beam headlights -

these should be used during the hours of darkness on an unlit road with no oncoming or proceeding traffic. Do not use them in foggy conditions, as they will reduce visibility further. When the main beam lights are on you will see a blue warning light on the dashboard.

Whichever lights you switch on, the tail-lights and the number plate light will also come on.

Fog lights



These should only be used when visibility is reduced to less than 100 metres.

The fog lights will not usually work unless the dipped headlights are switched on.

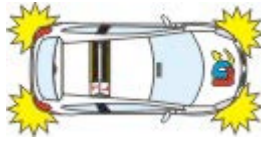
When the rear fog lights are switched on you will usually see an orange warning light on the dashboard and a green light when the front fog lights are on.

Hazard warning lights



The switch for the hazard warning lights is usually red or has a large red triangle on it. Hazard warning lights should be used when your vehicle is causing a hazard to other road users due to a breakdown. They must not be used as justification for illegal parking, or when your car is moving, unless it is to warn other drivers of a

hazard ahead on a motorway or unrestricted dual carriageway. When operated, all the indicators on the car flash at the same time.



Windscreen wipers and washers

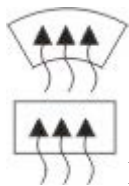


On the opposite stalk to the indicators you should find the windscreen wipers and washers control. Operate this stalk with your fingertips, just like you do the indicator stalk.

Depending on the make and model of your car move the stalk either upward or downward to operate the wipers.

- One click will bring on the intermittent wipe;
- Two clicks will operate the normal speed wipers;
- The third click will operate the double speed wipers.

To wash the windscreen move the stalk either towards you or away from you, depending on the make and model of car. There will also be a control for the rear wiper and washer, if there is one fitted.



Demisters and heaters

All cars are fitted with demisters, these will help to keep your windows clear at all times. Make sure the heat and fan are turned up and the air is directed onto the windscreen. Most cars have a heated rear windscreen, some cars also have a heated front windscreen.

The dashboard

On the dashboard there are several warning lights and gauges. If any of the lights light up when you are driving, stop and check the user's manual to find out what the problem is and whether or not you should drive the car further.



The speedometer will be displayed on the dashboard, this tells you what speed you are travelling at.

There might also be a rev counter, this tells you what speed the engine is rotating. Each turn of the engine is known as a revolution, hence the term rev counter.

The fuel gauge and temperature gauge will also be displayed on the dashboard. The temperature gauge tells you the temperature of the engine, if it shows high or red you must not drive the car any further.

Your instructor will explain the ancillary controls in more detail and how these work in their car.

Highway Code study

Rules: 112 - 116.

Page: 128 (warning displays)

Driving lesson 4. Co-ordination

Introduction

Now we have covered the basic skills of moving off on the level, changing gear and steering, you can use them to help with slightly more complex manoeuvres.

Lesson aims and objectives

During this driving lesson you will learn how to move off uphill, downhill and at an angle from behind a parked vehicle. This driving lesson will also improve your mirror and signal use as well as teach you about arm signals. It is important that you know how to pass stationary vehicles, use passing places correctly and understand about traffic calming measures too.

By the end of this driving lesson you should be able to:

- Control the clutch smoothly and accurately;
- Hold the car on the clutch on various uphill gradients;
- Maintain a crawling pace uphill, downhill and on the flat;
- Move off uphill;
- Move off downhill;
- Move off at an angle;
- Use the MSM routine when passing stationary vehicles;
- Check mirrors before changing speed, position or direction;
- Give appropriate signals when required;
- Overtake stationary vehicles safely;
- Use passing places correctly;
- Drive through areas with traffic calming measures safely.

Subject brief



Moving off uphill

To move off uphill use more gas to give you enough power to move away slowly and smoothly. When it is safe to move away release the handbrake gently. If the car begins to roll back, just bring the clutch up a little more.



Moving off downhill

No gas! Let gravity do the work for you. Control the speed with the foot brake bringing the clutch up gently as soon as possible. The steeper the gradient the higher the gear you should start in.

Moving off at an angle

You may need a signal, even if you think there is no one to benefit. When moving off at an angle it is harder to see and be seen. Check your blindspot at least twice. As you

are moving off slowly, other vehicles may approach. Use clutch control to keep your speed down until you have straightened your wheels.



Mirror use

When using the mirrors make sure you do not take your eyes off the road ahead for too long. Use quick glances and minimal head movement. Register what you see, and

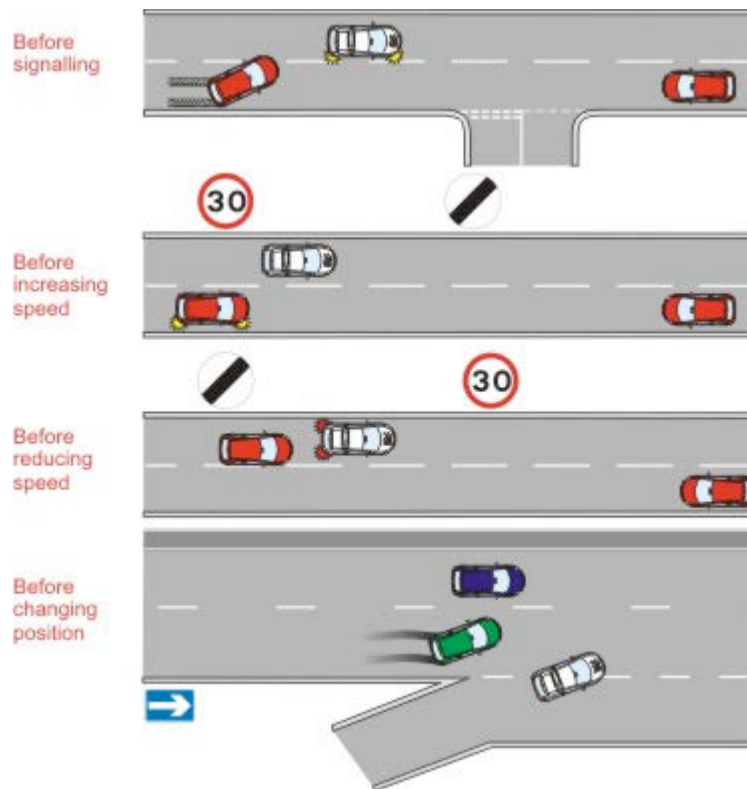


ask yourself these questions:

- Are there any vehicles behind or to the side?
- How fast are they travelling?
- How close are they?
- Are they signalling?

Once you have collected this information consider whether they will affect you and whether you need to take any action. As a minimum you need to know this before you signal, change direction, or change speed. If you are stationary you also need to know this before you open the car doors.

The following diagrams illustrate why you need to use your mirrors frequently.



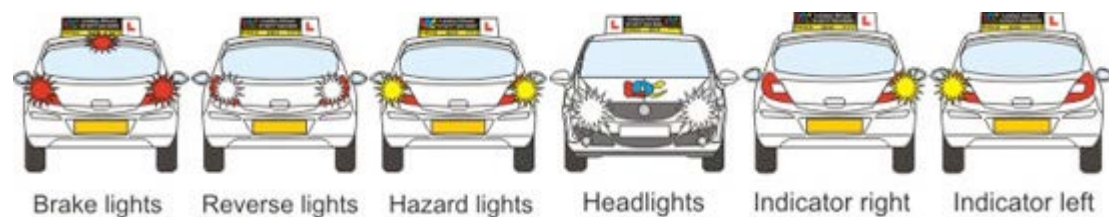
Check your mirrors *before signalling* to see what traffic behind is doing and what their intentions are.

Check your mirrors *before changing speed*.

Check mirrors *before changing direction*.

Signal use

Signals should only be used to help warn other road users of your intended actions or your presence. If other road users will not benefit from a signal then a signal may not be necessary.



See the Highway Code for the precise meaning of all these signals. Timing your signal is important. Too early and it may be misleading, too late and other road users may not see or hear it, or have time to react to it.

Arm signals can be used to re-inforce the signals on the car.



Horn

The horn should be used to warn other road users of your presence. Use this signal when approaching a narrow hump backed bridge or when negotiating a narrow bend.

Passing stationary vehicles

When driving you will encounter vehicles parked at the side of the road. The general rule is that the driver with the obstruction on their side of the road should give way to oncoming traffic.

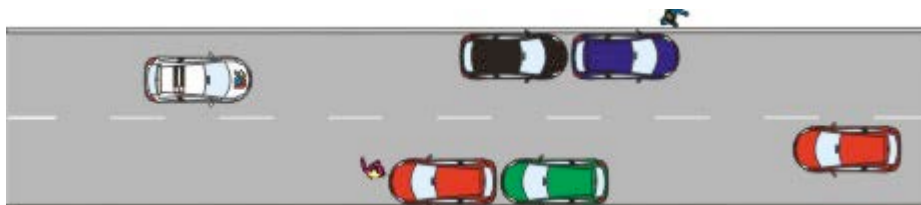


When approaching a stationary vehicle use the MSM routine. Check your interior and right door mirror to see if it is safe to give a signal and if so determine whether it would benefit anyone. Move out to just left of the centre of the road to gain a better view of any oncoming traffic. If you cannot overtake the stationary vehicle without affecting any oncoming traffic, slow down and be prepared to stop two car lengths behind the parked vehicle, this is called the 'holdback position'.

Maintain adequate clearance as you pass the stationary vehicle, about a metre if possible.



On busy housing estates you can sometimes be confronted with the problem of meeting traffic head-on where it is difficult to determine who has priority. Anticipation and common courtesy play an important role when dealing with this situation.

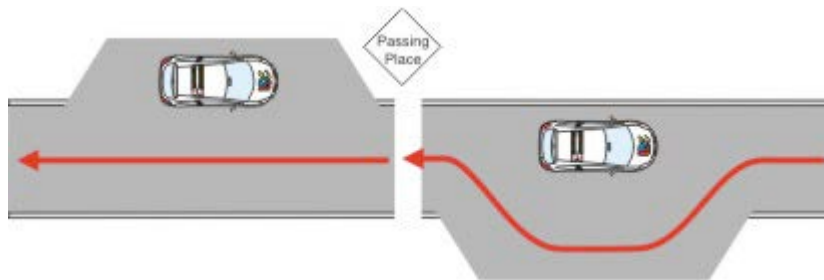


Try to ensure that you are seen and if possible gain eye contact with the driver of the approaching vehicle. Assess the speed and distance of the approaching vehicle. If you are confident that you will reach the gap before the oncoming vehicle it is likely that

the other driver will give you priority but do not assume it. The narrower the gap and the more pedestrians about, the slower your speed should be.

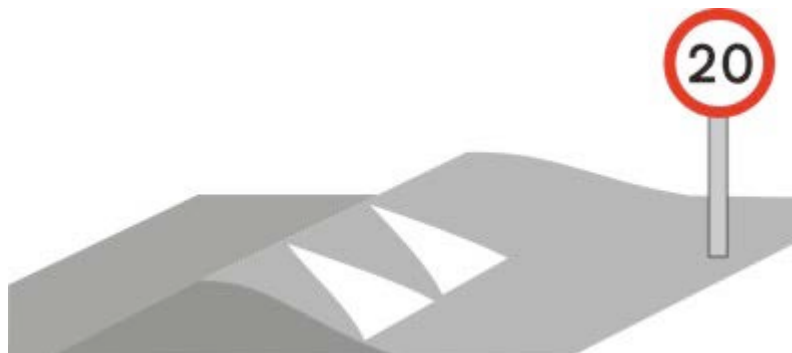
Passing places

On single track roads you will often find passing places to allow oncoming vehicles to pass. If the passing place is on your left hand side then you should wait in the passing place. If it is on your right hand side you wait opposite the passing place in such a position that the oncoming vehicle can move into the passing place area.



Traffic calming measures

In housing estates it is becoming more common to find various types of traffic calming measures. The most common is a speed hump, which can be either a small hump or a large plateau that stretches across the full width of the road. The speed limit in such an area can be 20mph or less, so look out for the signs.



You may also find other types of traffic calming measures such as extended causeways, treat these the same as you would a parked car.



Mini roundabouts can also be used as a traffic calming measure. If these are common in the area you are driving you need to look at the basic rules for dealing with them in driving lesson 9.

Highway Code study

Rules: 110 - 112, 152 - 156, 161 - 163, 212, 213.

The emergency stop

Introduction



A good driver will rarely have to stop in an emergency as he or she is always on the look out for potentially dangerous situations and will act accordingly. Never the less, a situation may arise that could not have been anticipated and consequently the only course of action is to undertake an emergency stop.

Lesson aims and objectives

During this driving lesson you will learn about stopping distances and how to stop in an emergency.

By the end of this driving lesson you should be able to:

- Complete the emergency stop exercise:
 - With full steering and braking control, braking progressively;
 - Using the brake and clutch correctly;
 - Making sure the car is secure after stopping;
 - Making full observational checks before moving off;
 - At various speeds.
- Describe the concept of stopping distances, with regard to thinking and braking distance;
- Explain how to correct a skid.

Subject brief

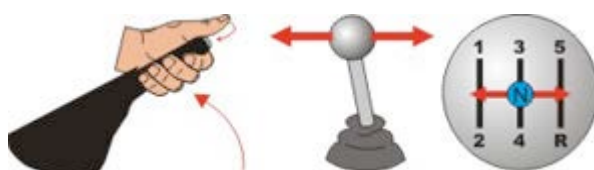
The emergency stop

The key points of the emergency stop are as follows:

1. Apply the footbrake quickly, but firmly, don't waste time checking the mirrors. Press the brake before the clutch. If you press the clutch first the car may become unstable and difficult to control.

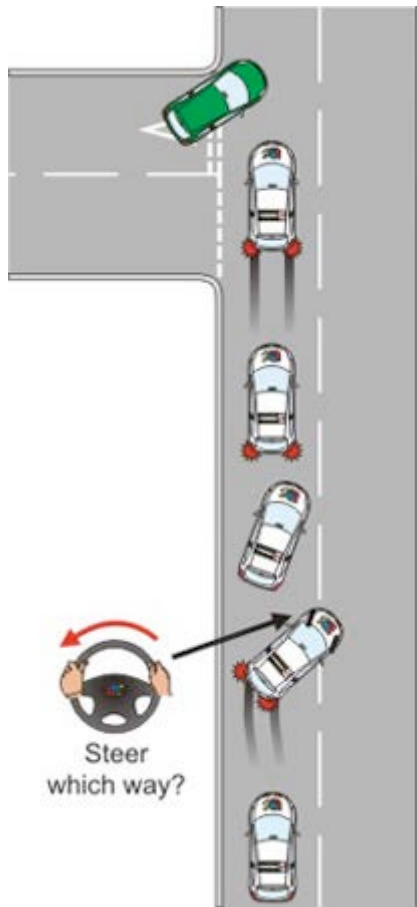


2. Keep both hands on the steering wheel until the car has stopped. When you brake hard the weight of the car is thrown forwards; this means that you need a firm grip on the steering wheel to maintain direction or correct skids.
3. Just before the car comes to a stop press the clutch fully to the floor. Once the car is stationary secure it by applying the handbrake and selecting neutral.



4. To move away again prepare the car to move and take effective observations in all your mirrors and check the blind spots to both the left and the right.

How to correct a skid



When braking firmly there is always an increased risk of skidding, particularly if the road surface is wet, icy or loose. On a good dry road surface you should allow a 2 second gap between your vehicle and the vehicle in front. In wet weather this distance should be doubled to 4 seconds and can be up to 10 times in snow and icy conditions.

If you apply the brakes too hard the wheels can lock causing the car to skid across the road surface. However, you may be driving a car that is fitted with ABS (anti-lock braking system), this system helps to prevent skidding when stopping quickly.

ABS works by detecting the point at which the wheels are about to lock, releasing the brake (which allows the tyres to maintain their grip on the road surface) and then reapplying the brake. This is done many times a second sending a pulsing sensation through the brake pedal. Maintain maximum pressure on the brake pedal throughout.

If you need to steer to correct a skid you can do so whilst still braking if your car is fitted with ABS. To do this steer into the skid, or the direction you want the car to go.

Do not allow the fact that you have ABS fitted encourage you to drive less safely. The car can still skid if there is poor tyre contact with the road surface, for example if there is surface water, loose chippings or wet leaves.

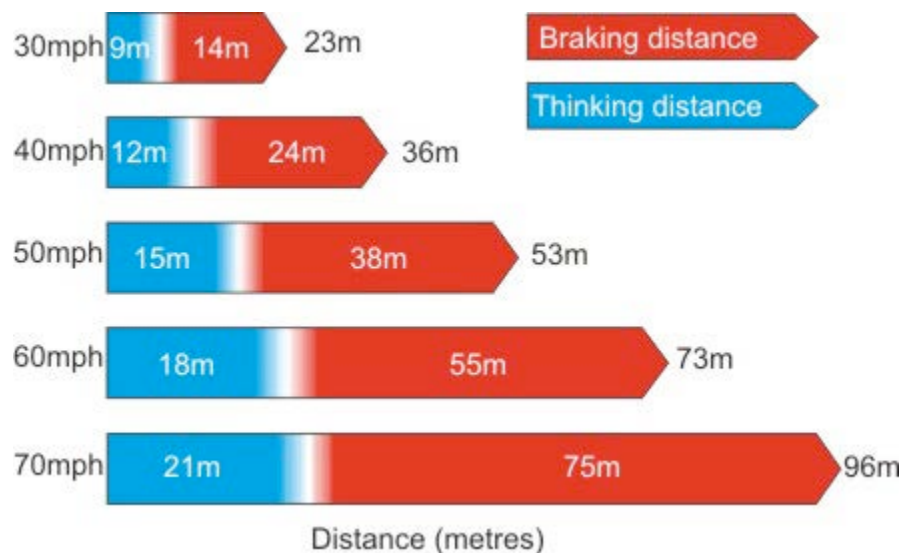
Cadence braking

If your vehicle is not fitted with ABS and it starts to skid, release the footbrake, this will allow the tyres to grip the road surface again, then reapply the brake to start slowing the car down again.

This should be done very quickly with a pumping action and is called cadence braking. You should not steer at the same time as doing cadence braking; wait until you have the car under full control again.

Speed and stopping distances

The distance it takes to stop a vehicle depends upon the weight, speed, brakes, tyres and suspension of the vehicle. It also depends upon your reaction speed or thinking time and the road surface itself. The Highway Code contains a guide to stopping distances assuming a typical dry road surface and average vehicle characteristics (see diagram below).



Highway Code study

Rules: 118 - 120, 126.

Driving lesson 6. Hazard Drill

Introduction

Once you have perfected your basic control skills you will be ready to learn the procedures necessary to navigate safely round our road systems. We will start with basic junctions and in particular how to turn safely into side roads and emerge from them. This requires the application of the Hazard Drill - a slightly expanded version of the MSM routine.

Lesson aims and objectives

During this driving lesson you will be concentrating on using a routine commonly known as the Hazard Drill to deal with simple junctions and other road hazards, such as stationary or slow moving vehicles.

By the end of this driving lesson you should be able to:

- Use the hazard drill on the approach to simple junctions and other static road hazards such as parked vehicles;
- Turn left or right into simple junctions on roads with little or no traffic;
- Cross the path of oncoming vehicles on roads with little traffic;
- Emerge from simple junctions onto roads with little or no traffic;
- Negotiate more complex junctions with full support or prompting;
- Explain the term 'hazard' in relation to driving;
- Explain the need for a routine to approach hazards;
- Explain why the steps in the hazard drill are considered in a specific order but are not always acted upon.

Subject brief

Hazard Drill (MSPSGL)

Each time you are presented with a potential or actual hazard on the road (i.e. anything that may require you to change speed, position or direction) you will go through the hazard drill one or more times. While each step of the drill needs to be considered in the order shown it need not necessarily be acted upon.

Mirrors - Use your interior mirror and side mirror(s) early. If appropriate take a sideways glance into your right or left blind spots. Repeat as necessary at any stage in the drill.



Signal - Give signals in good time. Use signals to help or warn other road users. Be careful not to give misleading signals.

Position - Determine the best position or course to negotiate the hazard. Think before you change position; be careful not to mislead others.



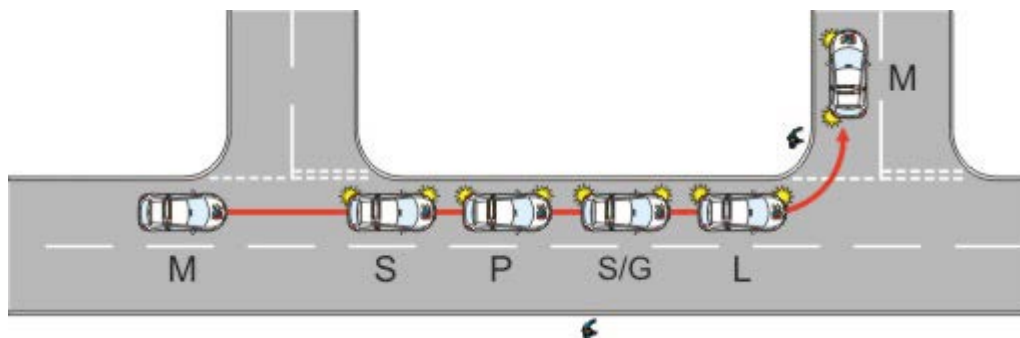
Speed & Gear - Adjust your speed and select the most appropriate gear so that you can negotiate the hazard ahead and stop within the distance you can see to be clear.

Look - Before making your final decision to proceed look where you are going to make sure it is still safe to negotiate the hazard. Remember to look along the path you propose to travel and watch for any potential dangers at every step in the drill.

Approaching junctions to turn left

You will use the Hazard Drill to help you turn safely into a side road on the left. As you see a side road on the left that you want to turn into follow this procedure:

1. **M** - check your interior mirror and left door mirror. Look along the course you propose to take.
2. **S** - signal left, be careful to time your signal well so you do not mislead others.
3. **P** - Maintain your normal driving position.
4. **S/G** - start to slow the car down to a speed that will allow you to safely negotiate the turn, approximately 10 - 15mph. Select the gear most appropriate for the speed you are travelling.
5. **L** - just before you make the turn, check your interior mirror and left door mirror, then take a final look into the side road to make sure it is still safe to turn.
6. **M** - once in the new road glance in your interior mirror to check the new situation behind you before increasing speed and making progress.



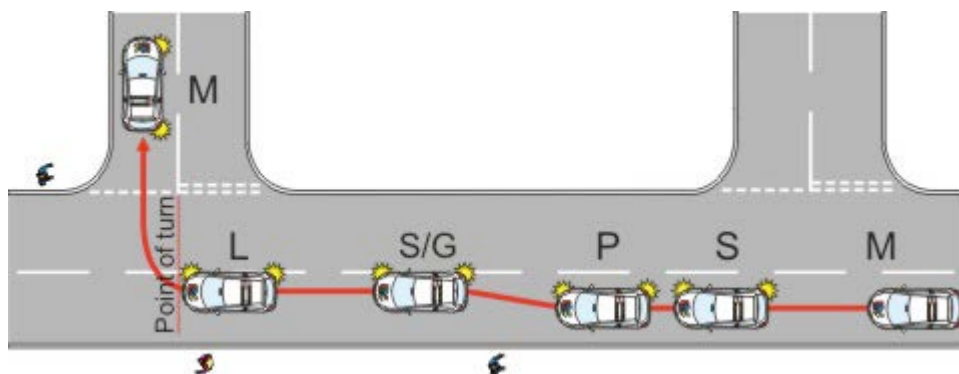
It is important to remember when you are turning left you have priority over oncoming traffic turning right, however take a final look ahead to make sure that any traffic turning from the right is waiting for you to turn. You must give way to pedestrians crossing the road at the mouth of the junction.

Approaching junctions to turn right

You will use the Hazard Drill to help you turn safely into a side road on the right. As you see a side road on the right that you want to turn into follow this procedure:

1. **M** - check your interior mirror and right door mirror. Look along the course you propose to take.

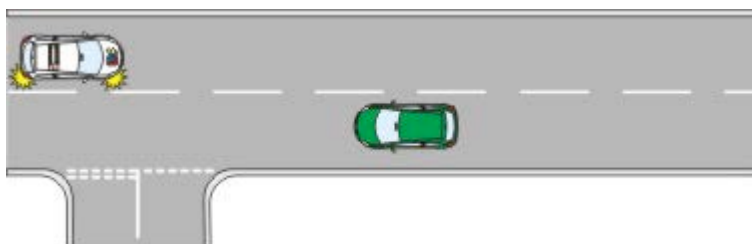
2. **S** - signal right, be careful to time your signal well so you do not mislead others.
3. **P** - when turning right take up a position just to the left of the centre line.
4. **S/G** - start to slow the car down to a speed that will allow you to safely negotiate the turn, approximately 10 - 15mph. Select the gear most appropriate for the speed you are travelling.
5. **L** - Just before you make the turn, check your interior mirror and right door mirror, then take a final look for oncoming traffic into the side road to make sure it is still safe to turn. The point at which you should start to steer is called 'the point of turn' and can be judged by imagining where the centre line of the road you are turning into crosses the centre line of the road you are on. When the front of your vehicle reaches this point, turn into the side road.
6. **M** - once in the new road check your interior mirror to check the situation behind before increasing speed and making progress.

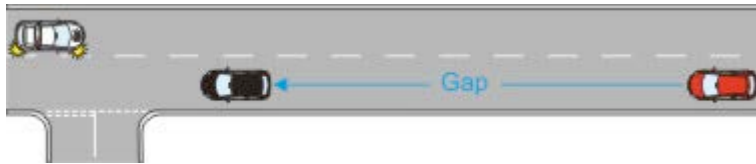


When turning right you have to give priority to oncoming traffic. You must also give way to pedestrians crossing the mouth of the junction.

If you find that you have to wait for oncoming traffic before turning into a side road on the right, follow these steps on approach to the junction:

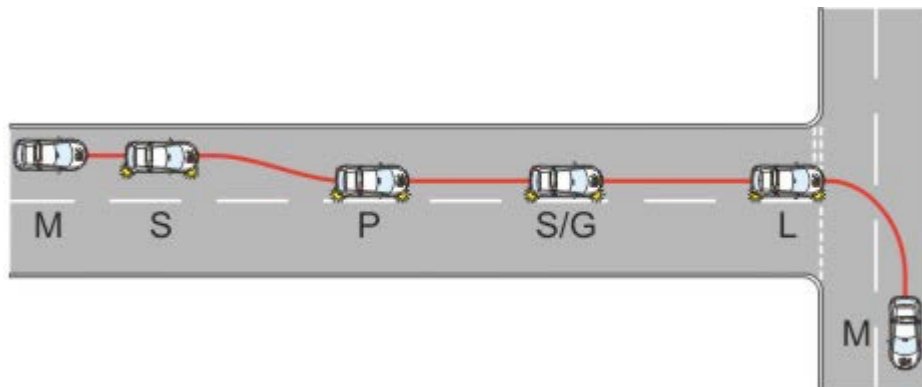
1. Stop just before the point of turn.
2. Select first gear and be ready to move. If you have to wait for a while apply the handbrake.
3. Wait for a safe gap in the oncoming traffic stream and prepare the car to move as the gap approaches.
4. Just before your chosen gap appears, check your interior mirror and right door mirror again and then turn if it is safe to do so.





Emerging from a side road

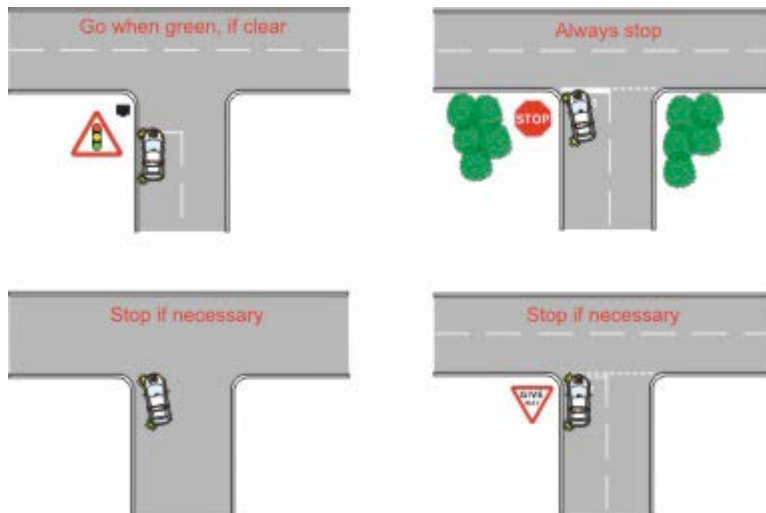
The routine you should use to emerge from a side road onto the major road is the same as approaching a junction to turn into a side road. Use the Hazard Drill to safely complete your approach to the junction.



Observations on approach are critical to determine whether you can emerge without stopping and in which gear. Some junctions are open allowing you to take early observations, others are closed and restrict your view.



Extra consideration needs to be given before you emerge into the major road. Vehicles on the major road have priority over you therefore you may need to slow down or stop at the junction to allow them to pass before you emerge into a safe gap.



When approaching the junction you wish to emerge from you should look for these signs and road markings.

Highway Code study

Rules: 170 -172, 179, 180, 182, 183.

Driving lesson 7. Crossroads

Introduction

As a driver you will encounter junctions known as crossroads. Crossroads are a place where two roads cross. It is important you learn the priorities at crossroads and how to deal with them safely whether you are driving on the major road or emerging from the minor road.

Lesson aims and objectives

During this driving lesson you will learn how to turn into side roads at crossroads and how to emerge from them.

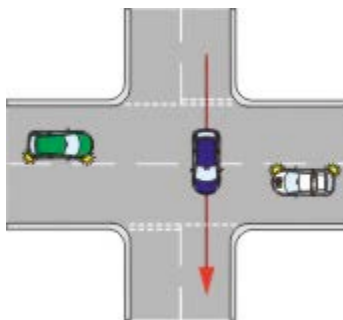
By the end of this driving lesson you should be able to:

- Recognize crossroads in advance and take extra observations on approach;
- Turn left and right from the major road while observing the priority of oncoming traffic;
- Emerge left and right from the minor roads, while observing the priorities of traffic on the major road and those on the opposing side road;
- Understand the extra observations you need to take at crossroads and the priorities you need to observe;
- Recognize when you might use near-side to near-side or off-side to off-side when turning right at a crossroads;
- Treat unmarked crossroads as a give way junction while being careful to assess and act upon the actions of other drivers;
- Recognize when it is possible to treat a staggered crossroads as two side roads;
- Deal with more complex junctions that include steep gradients, acute angles and restricted views.

Subject brief

Approaching crossroads to turn

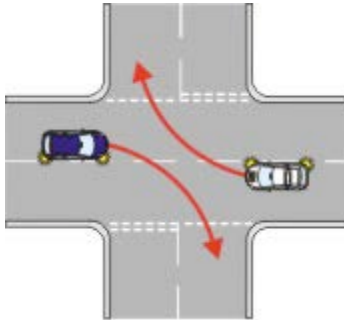
Approaching to turn into a side road at a crossroads is slightly different from turning into a side road at a T or Y junction.



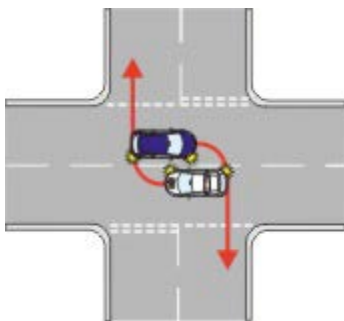
Firstly, traffic may emerge from either side road and cross your path. Although you have priority you must be prepared to stop if this happens. This may also occur when you intend to go ahead which is why you always take extra observations into the side roads of a crossroads before you pass.

Secondly, when turning right you may be faced with an oncoming vehicle also wanting to turn right. In this instance neither vehicle has priority. Usually vehicles turn nearside to nearside in this situation although offside to offside is safer, because you can see oncoming traffic before turning. Road markings may also dictate which method is used.

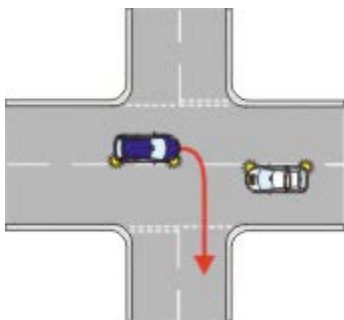
Nearside to nearside



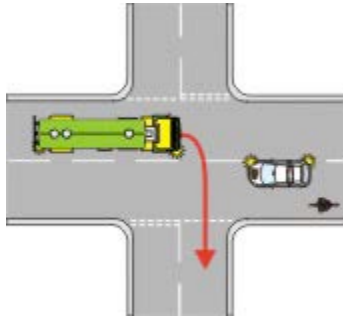
Offside to offside



If the side roads are too narrow for either nearside to nearside or offside to offside you might have to give way to the oncoming vehicle turning right, as shown in the following examples.



Similarly if a large vehicle was turning right you may need to give way if insufficient space is available.



However, in such situations be careful not to beckon the oncoming driver to turn as you may be being overtaken on the nearside.

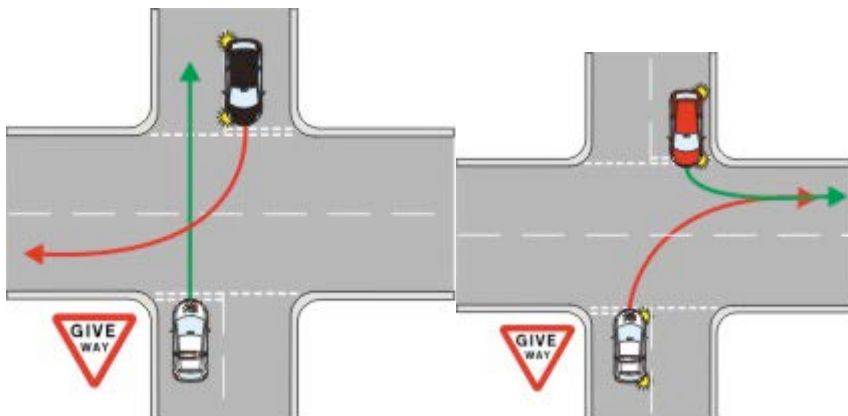


Emerging at crossroads

If no vehicles are emerging from the road opposite, emerging to the left and the right is identical to T junctions. However, be prepared to take advantage of opportunities to proceed as a result of the vehicles on the major road slowing down to turn into the side road opposite.

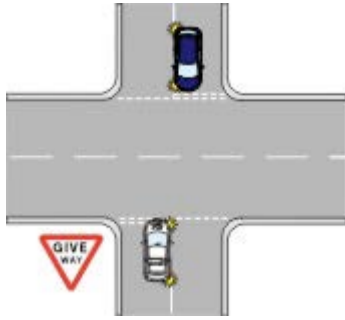
Priorities

The general rule for priorities when emerging from crossroads is that right turning traffic should give way to oncoming traffic. The vehicle with the **priority** in the following examples is the same as if the two minor side roads were one major road, however do not assume that the other driver will comply.

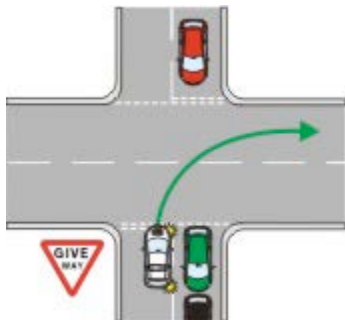


Despite not having priority the other driver may want you to proceed first and therefore you need to learn to watch and anticipate the other driver's actions.

The diagram below shows that no one has priority in this situation. The driver to arrive first would usually proceed first but you need to watch carefully to see what you think the other driver will do.



The situation in the diagram below shows the red car's progress is blocked by queuing traffic therefore you may proceed despite not having priority because the red car will probably give you priority. However, make sure this is the case.

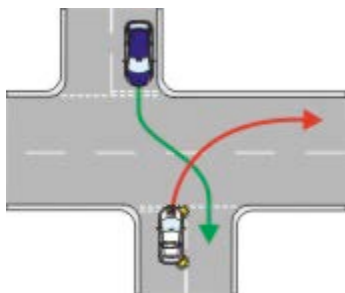


As the driver of the red car will need to take extra observations due to the bushes around the mouth of the junction, you can turn without impeding the driver.



Emerging at staggered crossroads

Priorities between the traffic on the opposing side roads is not so clear at staggered crossroads therefore you have to be particularly careful.



Emerging at unmarked crossroads

Neither road is the major road therefore proceed with extreme caution and be prepared to stop. Anticipating the actions of other drivers and driving at a speed that enables you to stop is critical. Priority regarding oncoming vehicles is not changed.

**Highway Code study**

Rule: 181.

Driving lesson 8. Emerging from busier junctions

Introduction

Once you have dealt with emerging from basic junctions it is important you understand how to emerge from busier junctions.

Lesson aims and objectives

In this driving lesson you will learn how to cross or join moderately busy traffic streams as you emerge from or enter junctions on roads with varying speed restrictions.

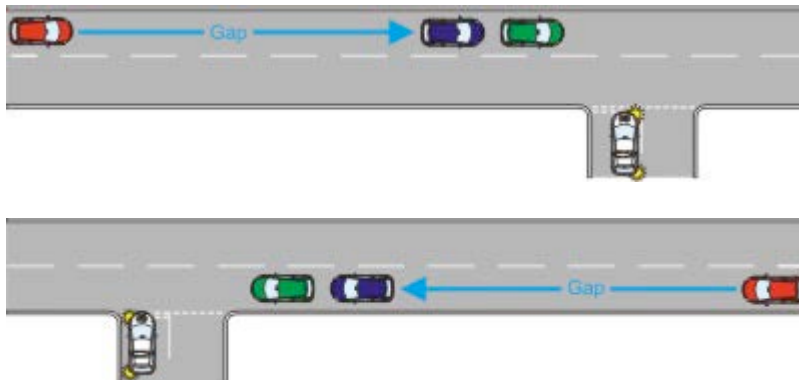
By the end of the driving lesson you should be able to:

- Explain the importance of timing your approach, assessing gaps in the traffic and having the confidence and ability to move away quickly;
- Time your approach to the junction so that you can emerge or cross the path of oncoming traffic safely without the need to stop, where the situation permits;
- Position for maximum vision and safety at junctions with restricted sight-lines;
- Judge the speed and distance of approaching traffic and determine the size of gap necessary to join or cross traffic streams without impeding the progress of other road users;
- Move away briskly from side roads into the major road when a safe opportunity arises.

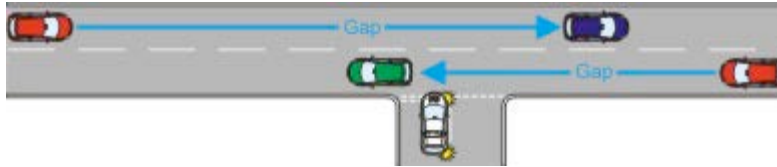
Subject brief

Emerging at busier junctions

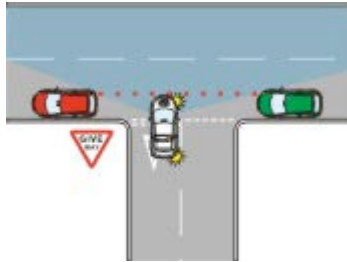
Before you can emerge into a major road with busy traffic streams you need a safe gap in the traffic. This gap has to be large enough for you to emerge and build up your speed to that of the traffic already on the major road.



When turning right you will also need a gap to appear in the traffic from the right large enough to give you time to cross over to the left hand side of the major road. The gap from the right needs to appear at the same time as the gap in the traffic from the left. The space needed from the right does not need to be as long as the one from the left as you are only crossing over to the left side of the road.

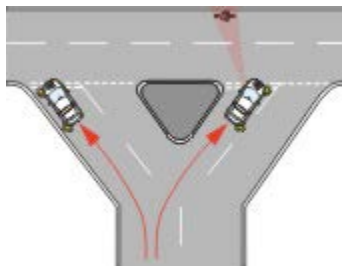


If your view of the junction is obscured by parked vehicles continue to creep forward slowly until you can obtain a view as in the diagram below.



Emerging at Y junctions

The procedure for approaching and emerging from Y junctions is basically the same as T junctions. However, the position of your vehicle may need to be slightly different just before emerging. Extra observations should be taken in order to improve your zone of vision as the pillars of the car might obscure your view and cause you to miss something small like a motorcycle or pedestrian.



Highway Code study

Rule: 211.

Driving lesson 9. Roundabouts

Introduction

Roundabouts are designed to keep the traffic flowing. Traffic should only flow in a clockwise direction around the island in the centre of the roundabout. This circular road is a one-way street and may be made up of one or more lanes. Mini roundabouts are much smaller but have the same purpose to keep the traffic flowing. Traffic entering the roundabout must give way to traffic already on the roundabout approaching from the right.

Lesson aims and objectives

During this driving lesson you will learn how to deal with the various roundabouts found on our roads. Some roundabouts are very complex with multiple lanes and multiple exits.

By the end of this driving lesson you should be able to:

- Explain the procedure for joining and leaving mini roundabouts and more complex roundabouts, including those on major roads with multiple lanes and exits;
- Recognise roundabouts early and take the necessary observations to ensure you approach the roundabout in the correct lane while looking for opportunities to proceed;
- Give the appropriate signal on approach for the exit you intend to take;
- Time your approach speed to make full use of any opportunities to proceed;
- Identify and respond accordingly to any drivers ahead who may stop unnecessarily at the give way line because they have not taken the appropriate observations on approach;
- Exercise good lane discipline throughout the roundabout while anticipating the actions of other drivers, in particular those driving larger vehicles;
- Apply the Hazard Drill correctly as you exit the roundabout making sure to signal at the appropriate time and glance to the left as necessary;
- Approach and exit a mini roundabout safely.

Subject Brief

Approaching a roundabout

When approaching a roundabout you apply your Hazard Drill and take observations into the major road ahead as early as possible. Unlike other junctions most roundabouts are quite open so that you can assess the flow of traffic on the roundabout at an early stage. This should give enough time to adjust your speed so that, if possible, you can emerge safely into the flow of traffic from the right without stopping.

Some drivers use roundabouts as though they were stop junctions and only take observations to the right at the last minute. As a result they might stop at the give way line when it is not necessary. Therefore do not presume the vehicle in front will proceed, even if it is clear.



How to proceed at a roundabout

Turning left

When turning left, approach in the left hand lane and signal left. Maintain your road position and your signal as you negotiate the roundabout.

Going ahead



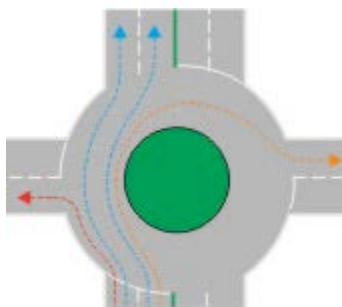
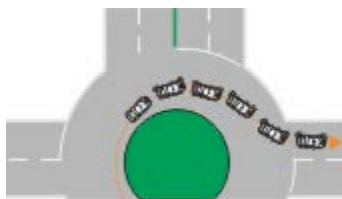
Use the left hand lane unless signs or road markings show that you should use a different lane. Do not give a signal on approach to the roundabout. Take care to keep in your lane as you drive around the roundabout.

Signal left to leave the roundabout as you pass the exit before the one you wish to take.



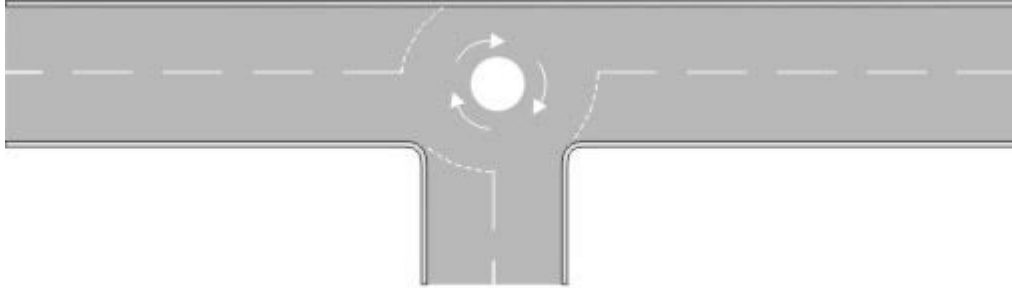
Turning right

When turning right, approach in the right hand lane and signal right. Maintain your road position and then signal left as you pass the exit before the one you wish to use. If you need to change lanes to leave the roundabout take extra observations to the left before moving across.



Mini roundabouts

The same rules apply at mini roundabouts as apply at the larger roundabouts, although you will probably find that you have to reduce speed even further due to the lack of space to manoeuvre. There is often insufficient time to signal left when leaving. You must pass around the central markings unless you are driving a large vehicle or towing a trailer, which is incapable of doing so. Try to avoid using a mini roundabout to do a U-turn, but be aware that other drivers may use it for this purpose.



Double mini roundabouts

At some junctions you may encounter a double mini roundabout. Treat each roundabout separately and give way to traffic from your right. Take careful all round observations before you enter.



Driving lesson 10. Traffic signals & pedestrian crossings

Introduction

Junctions that have larger volumes of traffic where major roads intersect or that are more complex are normally controlled by traffic lights. Also on these busier roads you will encounter various types of pedestrian crossings.

Lesson aims and objectives

During this driving lesson you will learn about traffic signals, light controlled junctions, pedestrian crossings and crossing patrols.

By the end of this driving lesson you should be able to:

- Explain the traffic light sequence and what each phase means;
- Recognise traffic light controlled junctions, pedestrian crossings and school crossing patrols well in advance and apply the Hazard Drill on approach;
- Act correctly on filter lights at traffic light controlled junctions;
- Recognise when it is inappropriate to proceed even though the lights are in your favour;
- Anticipate when traffic lights are likely to change or when pedestrians might cross and be prepared to pull up or move off as necessary;
- Select the correct lane at multiple lane traffic light controlled junctions well in advance and apply a signal as necessary;
- Explain the similarities and differences between the various types of pedestrian crossing;
- Stop in the correct position at pedestrian crossings being careful to keep the crossing clear.

Subject brief

Traffic signals

As you drive around you will encounter many traffic light controlled junctions. All of the signals follow the same sequence and meaning.



RED - this signal means stop behind the stop line.



RED & AMBER - this signal means stop. Do not pass through or start until GREEN shows.



GREEN - this signal means you may go if the way is clear.



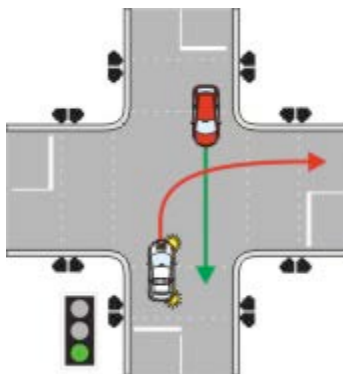
AMBER - this signal means stop at the stop line. You may go if the AMBER appears after you have crossed the stop line or if you are so close to it that to pull up might cause an accident.



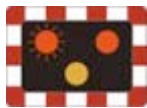
GREEN ARROW - this signal may be provided in addition to the full green signal if movement in a certain direction is allowed before or after the full green phase. If the way is clear you may go but only in the direction shown by the arrow. You may do this even when other lights may be showing.

Priorities

Even though you may have a green light indicating that you can proceed this does not change **priorities** with regards to oncoming vehicles.



This sign is often used on the approach to traffic lights. If you see it, be prepared for possible traffic queues ahead and be ready to stop. You must always obey the signals, even if the lights are only temporary, for example at roadwork's.



These red lights flash alternately and mean that you must give way to trains or emergency vehicles emerging from their depot. The steady amber light warns you that the red lights are about to show.

Level crossing

A level crossing is where a road crosses a railway or tram line. Always approach and cross level crossings with care. Be on the look out for signs warning you of a level crossing ahead.

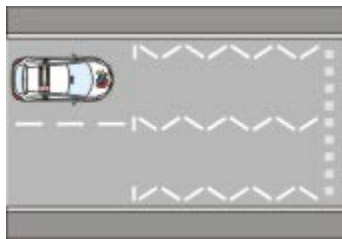
Whilst in a queue of traffic at a level crossing it is important not to get too close to the car in front. Only start to cross a level crossing when the road on the other side is clear and there is sufficient room for your car. Once the barriers have lifted and the

lights have gone out you can go, do not try to zig zag around the barriers as they are lifting into the upright position.

In the event of your car breaking down on a railway crossing you must firstly, get your passengers to safety; secondly, if there is a railway telephone use it to warn the signal operator and thirdly, if possible, push the car off the crossing (however, if the alarm rings or the amber light comes on get well clear of the crossing).

Pedestrian crossings

There are several types of pedestrian crossing. In each case you must try to identify the crossing early and use your hazard drill.



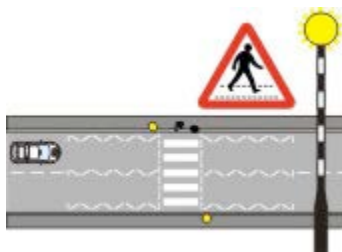
The zig-zag lines at these crossings act as a warning that there is a pedestrian crossing ahead and mark an area where you must not park or overtake. You must be careful not to cross over the studded give way line if you cannot clear the crossing area. Apart from the zebra crossing all the other crossings are light controlled and push button operated.



It is important at a crossing that you never beckon a pedestrian onto the crossing as you may be inviting them into danger from traffic travelling in the opposite direction.

Zebra crossing

The yellow flashing light on the diagram below is a 'Belisha beacon'. This marks the location of a zebra crossing, where you see this light you must be prepared to stop and give way to any pedestrians waiting to cross. Once a pedestrian has stepped onto the crossing you must give way and stop.



Pelican crossing

These crossings have a flashing amber phase during the traffic light sequence which requires drivers to give way to pedestrians on the crossing. However, if the crossing is clear you may proceed. At some pelican crossings the pedestrian will hear a bleeping

sound to indicate to blind or partially-sighted people that the steady green figure is showing so they can cross safely.



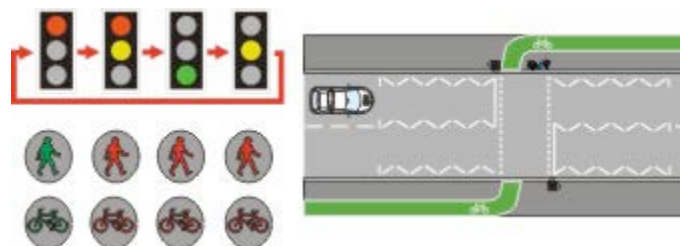
Puffin crossing

These crossings have sensors mounted on top of the traffic lights. The crossing is activated by pressing a button on the yellow box. When the signals change to red for the traffic, the sensors will sense movement on the crossing and keep the traffic lights at red until no movement is detected.



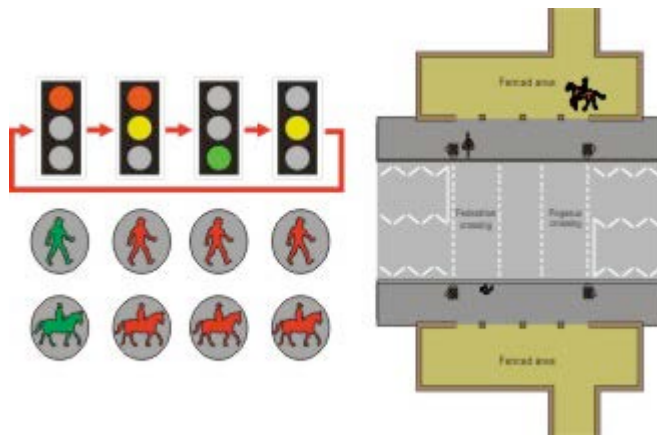
Toucan crossing

Toucan crossings work in exactly the same way as Pelican crossings except there is no flashing amber phase. They are designed to be used by pedestrians and cyclists at the same time. Cyclists do not need to dismount.



Equestrian (Pegasus) crossing

A Pegasus crossing is located where a bridleway crosses a major road. At the side of the crossing there will be a fenced area for horses to wait. The sequence and meaning of the lights at this crossing are the same as a Toucan crossing. It may be possible for both pedestrians and horses to cross at this type of crossing, if this is the case there may be two separate crossings.



Traffic light crossing

A pedestrian crossing can be incorporated into a normal set of traffic lights. It is still operated by a push button and the crossing area is clearly marked by two rows of studs.



School crossing patrol

The flashing lights on the warning sign inform drivers that a school crossing patrol is ahead. You must give way to the 'lollipop lady' or 'gentleman' on duty and be particularly careful as children will be crossing the road.



Highway Code study

Rules: 109, 174 - 178, 191 - 199, 210, 291 - 299.

Driving lesson 11. Hazard perception & defensive driving

Introduction

You will recall from Lesson 6 that a hazard may be defined as anything that might cause you to change speed, position or direction. Hazards can be caused by static road features (e.g. junctions, speed humps, extended causeway etc.) or by the actions of other road users or a combination of the two. This driving lesson concentrates on the hazards that develop through the actions of other road users and those circumstances that can contribute to their hazardous behaviour.

Lesson aims and objectives

During this driving lesson you will improve your ability to recognise potential hazards early and to take appropriate defensive action.

By the end of this driving lesson you should be able to:

- Explain the importance of driving pro-actively rather than reactively;
- Explain the difference between an actual hazard and a potential hazard;
- Give examples of the kind of clues you are looking for to help you anticipate the types of hazard that may lie ahead;
- Look well ahead for signs, other road users, junctions, obstructions and pedestrians;
- Assess whether any static road features or the possible actions of other road users present an actual or potential hazard;
- Apply the hazard drill and plan a suitable course of action to deal with any actual or potential hazard;
- Minimise potentially hazardous situations by acting defensively and courteously towards other road users;
- Adjust speed and position to maintain a safety buffer of space around your vehicle at all times;
- Apply the two second rule (or more in adverse weather conditions) and give yourself sufficient room to manoeuvre in traffic queues;
- Use signals and the position of your vehicle to communicate your intentions or presence to other road users.

Subject brief

Hazard Perception

Hazard perception in driving terms can be defined as: 'The art of being able to pick out the important details from all the information provided by your senses.' A perceptive driver must look for clues and build up a mental picture of what they think might happen next in order to anticipate the actions of other road users and to determine any risks.

While hazard perception skills can only truly be acquired through experience (preferably under the guidance of a professional driving instructor) you can speed up the learning process by having a better understanding of the factors that an expert driver considers when building up this mental picture of what is likely to happen next.



Road signs

Road signs can provide you with a clear warning of what lies ahead. It is essential that you train yourself to take note of all road signs and act accordingly.

Location

Are you in a busy town centre or on a country road? It would be unlikely that you would meet a flock of sheep in the high street, but there may be one just around the corner on a country road. Whatever your location you must always consider the type of hazard that you might expect to meet there, and be driving at such a speed that you can stop safely, if necessary.



Time of day

The time of day can give you a lot of information about what to expect on the road. Children can be present in the road at any time, but they are out in force just before and after school. Therefore, you should be keeping a special look out for children during the morning rush hour and mid-afternoon periods.

Other road users

It may seem fairly obvious that you should look out for other road users, but remember you are not just looking for them, you are looking for clues about what they will do next.

Pedestrians - The Highway Code explains that those pedestrians most at risk on the road are over 60 and less than 15. Old people do not judge speed and distance very well and their reactions can be slow. Some of the questions you should ask yourself are: Have they seen me? Can they hear me? Are they looking my way?

Children have little time to consider road safety; they are more interested in the game they are playing or the ice cream van they are running after.

Look for clues. Are they alone? If one child runs or cycles into the road there will often be at least one more following; footballs are followed by children; bicycles, seemingly abandoned at the side of the road will mean that children are not far away.

All pedestrians, not just the young and old, are at risk on the road. If there are pedestrians about, make sure that you know what they are going to do before they do it.



Animals - Noise and vehicles frighten animals. Therefore, drive slowly, don't sound your horn or rev up the engine and keep your distance. Watch their behaviour carefully, particularly if it is a horse ridden by a child.



Cyclists - Drivers should have more control over their vehicles than cyclists who are dependent upon physical strength and effort to pilot their machines. Always leave plenty of room when passing cyclists look out for clues about their next move. For example, a cyclist who looks around over his right shoulder may be about to turn right; a puddle in the road will cause a cyclist to move out. Cyclists are not easy to see and they can easily get lost in the blind spots around your vehicle. Particularly watch out for them in slow moving traffic in built up areas - they may overtake you on either side when you least expect it.

Motorcyclists - Like cyclists, motorcyclists are not easy to see particularly at dusk and at night. Like cyclists they may also take up unusual road positions to avoid holes and bumps in the road surface. It is very easy to miss an approaching motorcyclist when emerging at junctions so remember: **Think once, think twice, think bike!**

Drivers - If you are unsure about what a driver is going to do next, leave plenty of space between you and them. A sporty looking car may be driven by someone more interested in 'posing' than driving. Look out for the actions of drivers; a driver who has just stopped may open his door without checking to see if it is safe; a driver who seems to be dithering about may be a stranger to the area and could therefore make a last minute turn without a signal when he sees the road he is looking for.

Large vehicles - Buses and large vehicles need more room and may take up an unusual road position to turn round corners at junctions etc. Hold back and give them plenty of room.

Inconsistent behaviour

Inconsistent behaviour is often a very good clue to what might happen next. Just because a bus is signalling left prior to the side road that you intend to emerge from doesn't mean that you should go on the assumption that the bus is turning left? Look to see if all the actions of the driver are consistent with the signal. Is the vehicle slowing down as you would expect to complete the proposed turn?



Is the position of the vehicle consistent with the proposed manoeuvre? Is the driver looking in the direction they wish to turn? Could the driver be signalling left for any other reason? In this example the bus driver may be signalling left to pull up at a bus stop just after the side road. Make sure you look at all the evidence before you finally decide.

Let's consider another example. If you were driving behind a vehicle indicating to turn left but the road on the left had a no entry sign at its entrance it is quite probable that the driver will stop suddenly or swerve away at the last minute once he or she realises the mistake. Therefore anything that would potentially prevent the driver from

completing the proposed manoeuvre safely would make the proposed action inconsistent.

Train your mind to recognise inconsistency - if a situation is not quite right, ask yourself, why is that?

What other drivers cannot see

Consider what you can see that other drivers cannot see. This may play an important part in determining what may happen next. As well as determining whether the drivers behaviour is consistent with the manoeuvre they propose to complete also consider whether you can see something or someone that they cannot see that may cause them to alter their course or abort the manoeuvre at the last minute. Also consider whether other drivers need to see you and if so determine what you can do to make your presence known to them.

The weather and visibility

Bright sunlight, fog, rain and snow can severely affect visibility so slow down and give yourself more space. At dusk and at night the driver loses the ability to see any detail and dark objects easily merge into the background. Consider not only how this will affect your judgement but also how the conditions might affect other drivers.

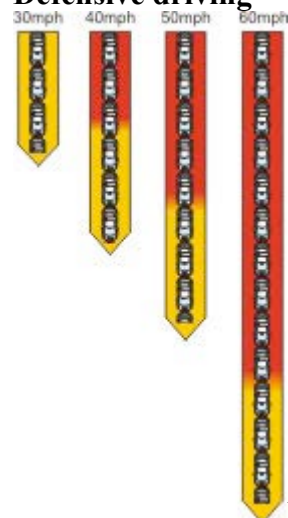
Is the other driver being blinded by bright sunlight or if at night by headlights on full beam?

Are the windows of the other vehicle misty - can the driver see you?

Will the high sided vehicle, in high wind, remain stable when it crosses a gap in the hedge or buildings that line the side of the road?

Also remember the effects of water, ice and snow on the road surface - are the other drivers driving too fast for the weather conditions - are you driving too fast for these conditions?

Defensive driving



Driving defensively is all about giving yourself time to react and keeping your options open. Even someone with lightning fast reactions needs time to react. The chart below shows the distance it takes to stop a car when travelling at

30mph or above assuming you could instantly apply the brakes (i.e. no thinking time). Most people take at least two thirds of a second to apply the brakes which means you need to add an extra two car lengths at 30mph and 6 car lengths at 60mph to those shown. If anything or anyone is within the distances shown they will be hit. You could call this area 'The Impact Zone', however if you are travelling at 40mph or more it might be more appropriate to call it 'The Killing Zone', as anyone hit at 40 mph or more is unlikely to survive.

Due to this it is important to anticipate what might happen and act upon it, rather than waiting for it to happen. To do this effectively you need to:

- Look well ahead and perceive potential problems early.
- Apply your hazard drill in good time.
- Give yourself plenty of space.

Look well ahead and perceive potential problems early

See and be seen. Take up a safe road position that allows you to see and be seen. Be attentive; focus on the driving task - don't let your mind wander.

Keep your eyes moving and scan the road well ahead. Avoid staring at any single point ahead or to the side. Concentrate on the available space (i.e. the gaps), not the obstructions.

With experience and guidance from your instructor you will begin to recognise what feedback from your senses is important and what is not. Ignore the superficial information you can see. For example don't concentrate on identifying individual drivers or pedestrians or the make, model and colour of vehicles. Instead concentrate on the position, speed and potential course of other vehicles and pedestrians to the front, rear and sides of your vehicle.

Look as far down the road as you can see for any potential hazards whether they are static road features or situations being caused by other road users. A gap in the tree line ahead may mean that there is a side road at that point or an upside down triangle sign in the distance may warn you that you are approaching a T junction.

Apply the Hazard Drill in good time

As soon as you perceive a potential danger, begin to use your Hazard Drill and determine where you can go or how you can stop if the danger materialises. Remember you need to consider what's behind as well as what is in front when considering your options.

Give yourself plenty of space

You need to give yourself the time to recognise a potential problem and apply the Hazard Drill. We refer to this as 'Driving in space'. Maintain a buffer of space or a safety bubble around you at all times. The higher your speed the bigger the bubble needs to be.

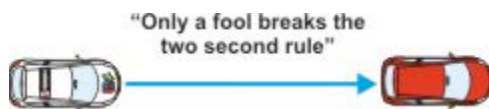
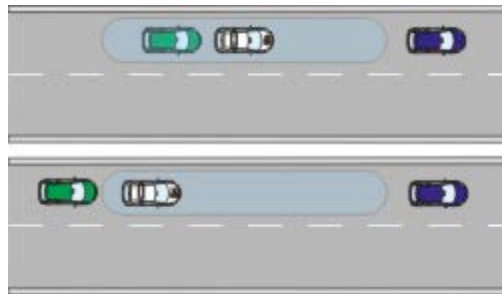


Space to the front - you must allow yourself enough room to stop. So always travel at a speed that allows you to stop well within the distance you can see to be clear.

Space to the sides - make sure that you leave enough room for pedestrians, cyclists, motorcyclists and other vehicles. If you are unsure whether or not you will fit through a gap, you won't! Give parked cars and pedestrians at the side of the road plenty of clearance. Remember pedestrians are far more vulnerable than vehicles. Allow for car doors opening, children appearing from between parked cars or pedestrians

wandering onto the road particularly in crowded streets. Position your car accordingly and reduce speed as the space to the sides of your vehicle is reduced.

Space to the rear - try to keep a minimum safety gap of two seconds between your vehicle and the one in front. If another vehicle is following too closely gradually ease off the accelerator and slow down in order to increase the gap in front of you.



Highway Code study

Rules: 91, 93 - 96, 124, 125, 144 - 152, 204 - 225, 226 - 237.

Driving lesson 12. Dual carriageways

Introduction

The term dual carriageway refers to a road where there is a physical separation between streams of traffic travelling in opposite directions. The barrier is usually a grass verge in the centre of the road with or without a crash barrier.

Lesson aims and objectives

In this driving lesson you will learn how to deal with fast moving traffic on dual carriageways. Therefore you need to learn how to deal with slip roads, overtaking and the extra hazards caused by fast moving traffic on dual carriageways.

By the end of this driving lesson you should be able to:

- Join a dual carriageway from a slip road by building up speed to match that of the traffic on the dual carriageway;
- Leave a dual carriageway safely by using the slip road for decelerating;
- Cross or turn right from a dual carriageway safely, paying particular attention to the extra problems this causes;
- Exercise good lane discipline and use of the two second rule;
- Maintain good progress and overtake other vehicles as necessary;
- Anticipate the actions of other drivers and apply the Hazard Drill appropriately;
- Demonstrate good awareness of what is happening behind.

Subject brief



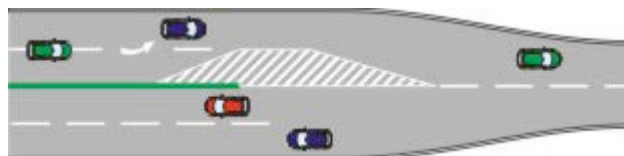
Dual carriageways

Each side of the dual carriageway can have a number of lanes (typically two or three). Keep to the left-hand lane unless signs or road markings indicate otherwise or unless you are overtaking. On dual carriageways traffic can travel up to 70mph, the key to dealing with this traffic is good forward observations to assess the traffic situation ahead and the effective use of mirrors to assess the traffic situation behind.



End of dual carriageway

Watch out for the 'end of dual carriageway' sign. Don't start to overtake after you see the sign, otherwise you might run out of road or worse, find yourself facing oncoming traffic head on.





Clearways

Clearways are not restricted to dual carriageways. However, most dual carriageways are clearways. On roads with the clearway sign you must not stop on the main carriageway except in a lay-by. Clearways are designed to allow the free flow of traffic.

Junctions and slip roads

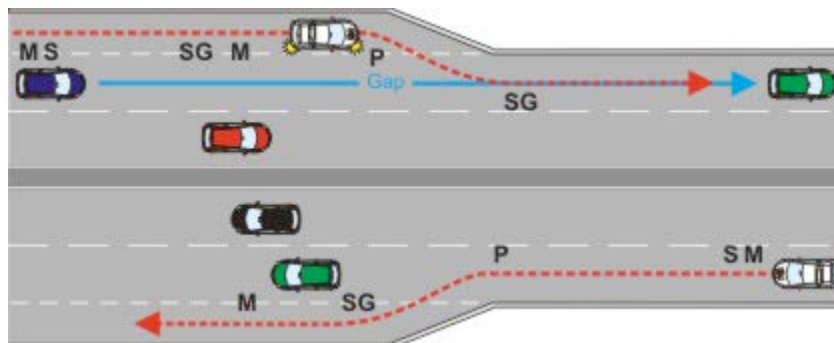
All the usual junction types can be found on dual carriageways including traffic light controlled. On dual carriageways cars are allowed to travel at speeds up to 70 mph so it can be quite difficult to judge a suitable gap in the traffic when emerging ahead, to the left or to the right. To help reduce the dangers slip roads were developed. A slip road is the term commonly used to describe an acceleration or deceleration lane that helps to maintain the flow of traffic on the dual carriageway by providing a much safer way to join and leave fast flowing traffic. It is the only method allowed on motorways.

Using slip roads

A slip road can be used to build up your speed so that you can time your entry on to the carriageway to coincide with a suitable gap in the traffic from your right. The objective is to match the speed of the traffic on the carriageway so the gap needed will be minimal. If you are traveling at a slower speed then the gap needed will have to be much larger. Unfortunately slip roads come in varying lengths therefore it is not always possible to match the speed of the traffic you intend to merge with.

Consequently, even before you commence the manoeuvre of joining a carriageway you must assess the length of the slip road to determine what speed you can attain and what gaps there are in the traffic from your right. Once you can see a reasonably sized gap coming towards you in the mirrors adjust your speed so that you can merge safely at the same time as the gap appears to your right.

You then need to check your mirrors again and possibly glance over your right shoulder just before joining the carriageway. Therefore to complete this manoeuvre you effectively use the hazard drill at least twice with extra observations through the mirrors.

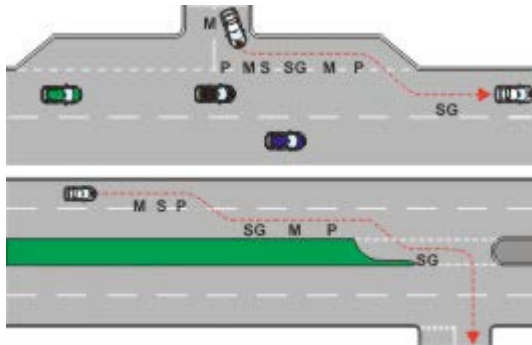


Short slip roads

As mentioned earlier some slip roads are quite short and therefore the gap in the traffic that you need to merge in

safely needs to be much bigger. In the example below you should wait at the start of the slip road if the carriageway is particularly busy. This will allow you to build your speed up when a suitable gap appears.

When a slip road is available to leave a dual carriageway you should try to avoid reducing your speed until you have entered the slip road. If the slip road is too short to allow you to do this then you should start to reduce speed before you enter the slip road. In which case you effectively use your hazard drill twice, once to reduce speed just prior to entering the slip road and once just as you begin to enter the slip road.



Overtaking

When you overtake on a dual carriageway you would use your hazard drill at least three times. Once to get ready to overtake, once to actually overtake and once to move back into the left hand lane.



P - move into the left hand lane without cutting in.

S - cancel your signal.

M - check your mirrors to see what is following and ensure it is safe to move back into the left hand lane.

S & G - Speed up, especially if you had to reduce speed earlier.

P - Move your vehicle into the right hand lane while maintaining adequate clearance from the target vehicle.

S - Signal your intention to overtake.

M - Check your mirrors and glance to your right to ensure it is safe to continue with the overtake.

S & G - Adjust your speed to match that of the vehicle in front if it is not safe to proceed with the overtake or select the best gear for overtaking.

P - Maintain a safe distance behind the vehicle in front.

M - Check your mirrors well in advance for potential gaps behind.

Highway Code study

Rules: 106 - 108, 116, 130 - 139, 173, 288 - 290.

Driving lesson 13. Town and city centre driving

Introduction

When driving in a busy town or city centre you will encounter one way systems; bus, cycle and possibly tram lanes; and various parking restrictions.

Lesson aims and objectives

The aim of this driving lesson is to learn how to deal with the road systems and the traffic conditions found in busy town and city centres.

By the end of this driving lesson you should be able to:

- Identify the types of hazard that are likely to occur in busy town or city centres;
- Recognise when you are entering or crossing a one way street;
- Maintain all around awareness when in traffic queues or on multiple lane roads;
- Show courtesy to other road users and avoid blocking side roads or crossing traffic at junctions;
- Plan well ahead and select the correct lane as soon as possible for the route you intend to take;
- Merge with or join queuing traffic streams from side roads or other lanes;
- Recognise cycle, bus and tram lanes and act accordingly;
- Recognise parking and traffic flow restrictions.

Subject brief

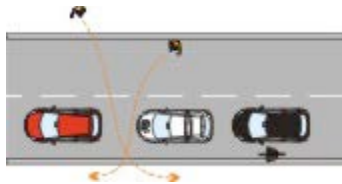
Traffic queues

In town and city centres you often find traffic queuing. Therefore don't expect the road ahead to be clear. Traffic queues can sometimes make it difficult to get into the correct lane. Therefore you should always try to get into your designated lane as early as possible. However, even with the best planning there may be times when you might signal to change lanes and rely upon the courtesy of another driver to allow you to merge in front of them. In this instance the signal becomes a request to merge rather than a signal that you intend to immediately change lanes. However, you must continue to allow traffic to flow in your current lane and be prepared to abandon your manoeuvre if no one lets you in.



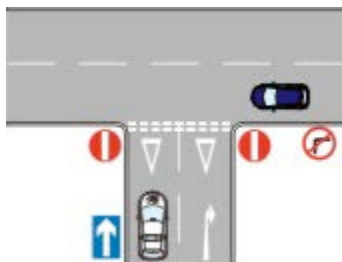
If someone signals to merge in front of you make sure they have seen you and that their actions are consistent with a request to merge rather than an intention to immediately move across. Then if it is safe to give them priority do so. Courtesy and common sense plays a very important role in town and city centre driving.

While queuing you have to particularly watch for pedestrians coming onto the road in front of you and for cyclists or motorcyclists coming up either side of your vehicle. All round observations and awareness are critical when in queues of traffic.



One way systems

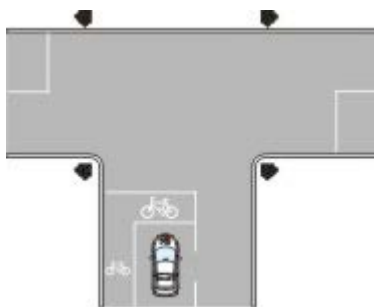
To help improve the flow of traffic around town and city centres one way systems have evolved. Roads that at one time may have clearly been designed to have traffic flowing in both directions may now only allow traffic to flow in one direction. This can at first be a little disconcerting as you may find yourself driving on the right hand side of the road.



Although you will be familiar with driving in the right hand lane on a dual carriageway the right hand lanes in a one way system are not specifically for overtaking. On a one way system traffic may overtake on either side. Also traffic can merge from the right as well as from the left. On dual carriageways traffic usually only merges from the left.

Bus, cycle and tram lanes

Many town and city centres now cater for buses and cyclists by providing specific lanes for such traffic. Some also cater for trams. Cycle lanes are usually protected by a solid white line that should not be crossed. Special care must be taken if you have to cross a cycle lane when turning left or right. Areas of the road may also be designated for cyclists.



Watch out for road markings similar to the ones in the diagram above. Note how space is allocated in front of the traffic for cyclists at the traffic lights. You must stop behind the first white line at the traffic lights not the second.



Bus lanes may or may not be for the exclusive use of buses. If there are only certain times when buses have exclusive use of such lanes road signs will clearly state this. Outside of these times normal traffic may use them.

Sometimes you may find that a bus lane flows in the opposite direction to the rest of the traffic (i.e. contra flow). You may be on a one way system with a bus lane going in the opposite direction.

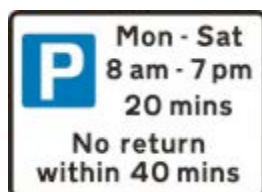


In an attempt to reduce the traffic congestion of city centres some councils have adopted modern tram systems. You should always be prepared to give way to trams as they cannot stop easily and cannot be steered. The metal tracks or rails also present a hazard as they can become slippery when wet.



Parking restrictions

Parking restrictions are designated by signs and yellow lines. Different types of yellow line indicate the various levels of restriction in force.

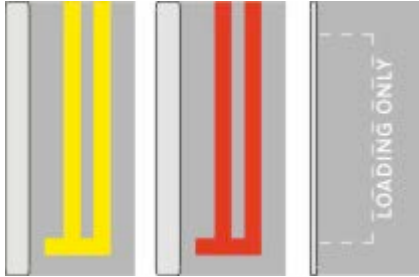


Parking times



Permit holders only

A simple rule to remember is - the more paint there is the greater the restriction.
Always look out for the yellow or blue plates that give details of the limitations on parking.



Highway Code study

Rules: 123, 140 - 143, 238 - 252, 300 - 307.

Driving lesson 14. Progressive & Eco-safe driving

Introduction

Progressive driving is about making maximum progress for the road, traffic and weather conditions without risking safety. This requires more driving skill along with better planning and awareness, particularly when you are overtaking or negotiating bends in the road. Eco safe driving is very similar but with more emphasis on saving fuel.

Lesson aims and objectives

During this driving lesson you will learn how to overtake fast moving vehicles on a single carriageway, how to negotiate bends at speed and how to recognise when speed can result in a waste of time, energy and fuel.

By the end of this driving lesson you should be able to:

- Explain the difference between progressive driving and speeding;
- Explain the conditions that are likely to result in a skid and losing control of the vehicle;
- Consistently drive at such a speed that you can stop within the distance you can see to be clear;
- Explain what factors need to be considered when assessing how fast a bend can be negotiated safely and the risks involved;
- Identify the sharpness of a bend on approach and the most suitable speed and gear to negotiate the bend;
- Demonstrate a reasonable level of skill in negotiating bends of differing shapes and complexity;
- Explain the likely places it would be unsafe to overtake and why;
- Demonstrate a reasonable level of skill in overtaking moving vehicles at speed on a single two way carriageway.
- Demonstrate an eco driving style.

Subject brief

Progressive Driving

Speed versus Progress

There is one golden rule about speed - never drive beyond the limits of your vision - always drive at such a speed that you can stop safely within the distance you can see to be clear.

Speed does not necessarily equal progress. For example when you are proceeding in a constant flow of traffic that has few significant gaps there is little point in racing to overtake at every opportunity as your progress will continually be hindered by the overall flow of the traffic. You would be constantly slowing down and accelerating to save a few minutes out of a 60 minute journey time. The fuel you would use on such a journey would potentially be doubled and your energy would be sapped from all the extra concentration needed to cope with the overtaking and the constant changes of speed. Therefore the progressive driver uses his brain and does not waste fuel or energy for little or no gain in overall journey times. One extra stop for fuel would lose any gain you might make.

Keeping a grip

When driving at speed road and tyre adhesion become critical. Therefore anything that will influence this adhesion must be considered when you are driving. Tyre tread, tyre pressure and the car's suspension all affect the car's ability to stop or take corners at speed.

Changes in the road surface also play a major role. Wet leaves, mud, oil, ice and water on the surface of the road all affect adhesion as does the actual material make up of the road surface itself. Certain road surface materials give a better grip. Changes in the way the road inclines can also affect adhesion particularly on corners. All the above need to be carefully considered if you want to make maximum progress without compromising safety.

Driving round the bend

There is a lot of skill and balance needed to make maximum progress round bends. However, the first thing to remember is the golden rule. Just because you can take a bend at 50 mph doesn't mean that you should, especially, if you cannot see what's around the corner. You may discover a steam roller, a combine harvester or an articulated lorry waiting for you!

When approaching a bend you need to consider;

- The shape of the bend;



- What you can see ahead;
- What's on the road surface (and does it incline in any way)
- What you will hit if you lose control.

If there are trees along the road and you are pushing the car and/or your own ability to its limits then you are dicing with death. Bends take many "boy and girl racer's" lives.

Balance - the first thing that you need to learn to successfully negotiate bends at speed is balance. The vehicle achieves maximum adhesion when the weight of the car is evenly spread over each wheel and across the whole of the tread of the tyres .

When steering:



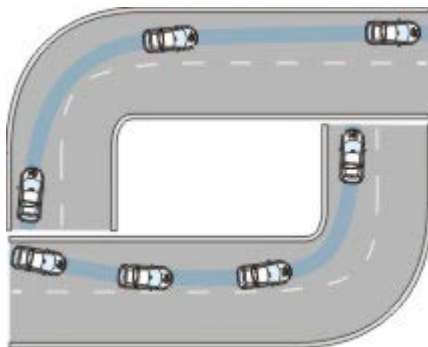
When braking:



As soon as you brake or turn the weight of the car shifts so adhesion may primarily be occurring on only one or two of the tyres and, if the wheels lock, only across part of the tyre's tread. This dramatically increases the risk of a skid (i.e. the loss of adhesion) and makes the car very unstable.

Therefore you should not be braking or accelerating at the point you enter the bend. Ideally you should maintain a constant speed into and around the bend. As you come out of the bend you can begin to accelerate.

Sensitivity - when you turn your steering wheel it should be done gradually and smoothly without jerking. You are trying to minimise the sharpness of the curve you are turning without cutting across to the other side of the road or allowing your road position to become a hazard to oncoming vehicles. On approach to the hazard (i.e. the bend) you should apply your hazard drill making sure you are at the correct speed and in the correct gear before you start to turn.



Overtaking at speed on single carriageways

Overtaking moving vehicles at speed on a single carriageway is potentially the most dangerous manoeuvre you can perform. You are driving on the wrong side of the road while traffic may be heading towards you.



Choose a safe place to overtake

Perhaps the most important thing to learn about overtaking is where not to overtake. You should never normally overtake immediately after a warning sign, in particular those shown below:

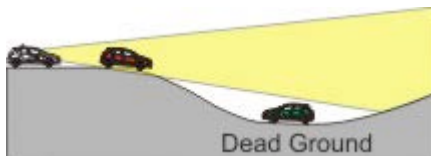


You need to look well ahead for these hazards and also for any road markings.



Dead ground

One physical hazard that is not easy to spot is something known as "Dead Ground". This is where the road dips into a hollow giving you the illusion that there are no oncoming vehicles when in fact there are.



There are two important points to learn from this. Firstly, if your view ahead is not absolutely clear wait and secondly; always be prepared to abort the overtake, if necessary.

The overtaking procedure

The overtaking procedure is similar to that covered on the dual carriageway driving lesson, however, we now have to consider oncoming traffic. You would probably use the hazard drill at least three times as shown opposite.

Never 'follow through'

You may occasionally find yourself in a stream of traffic all of which intend to overtake a slow moving vehicle. Make sure that you can see clearly ahead before overtaking in this situation. Never blindly follow the vehicle in front assuming that it is safe to overtake.

How to overtake



P - move into the left hand lane without cutting in.

S - cancel your signal.

M - check your mirrors to see what is following and ensure it is safe to move back into the left hand lane.

S & G - Speed up, especially if you had to reduce speed earlier.

P - Move your vehicle into the right hand lane while maintaining adequate clearance from the target vehicle.

S - Signal your intention to overtake.

M - Check your mirrors and glance to your right to ensure it is safe to continue with the overtake.

S & G - Adjust your speed to match that of the vehicle in front if it is not safe to proceed with the overtake or select the best gear for overtaking.

P - Maintain a safe distance behind the vehicle in front.

M - Check your mirrors well in advance for potential gaps behind.

Eco-safe driving

Eco-safe driving is a style of driving that will help to reduce damage to our planet and the air we breathe whilst improving road safety and saving you up to 15% on your fuel bill. Transport currently accounts for 20% of all air pollution emissions in the world.

Eco-safe driving is not about driving slowly (although this would undoubtedly help to reduce fuel consumption and accidents) it is more about avoiding senseless wastage of fuel through unnecessary acceleration or braking, inefficient use of the gears and speeding (i.e. exceeding permitted limits or driving at speeds unsafe for the prevailing conditions). The skills required for hazard perception, defensive driving and progressive driving play a big part in eco-safe driving as they will help you to avoid inefficient use of the accelerator, brake and gears through better awareness, anticipation and planning. There are four key aspects to being an eco-safe driver namely:

1. Minimise harsh or rapid acceleration

Whenever it is safe to do so, gradually increase speed by gently depressing the accelerator. Don't peak the revs on your rev counter, try to get them to grow steadily in line with your speed on your speedometer.

Don't accelerate unnecessarily. Look well ahead to see what is happening, to ensure that any acceleration now will not be wasted a little later on because you have to brake.

Let gravity aid you so that if you are going down hill you may find you can fully release pressure on the accelerator and still maintain a safe speed.

2. Minimise harsh braking or unnecessary stopping

Look well ahead and if you see that you will need to reduce speed, do it gradually using engine braking by simply releasing pressure on the accelerator rather than applying the brake at the last minute. Gradually adjust your speed to time your arrival at meet situations or when turning right such that you can potentially maintain progress and avoid having to stop. Similarly, you can do this when emerging from a give way junction provided you have a good view of the road you intend to emerge into as you approach the junction.

3. Engage higher gears as soon as possible without labouring the engine

Avoid engaging unnecessary intermediate gear changes so that you can more quickly engage higher gears or delay engaging lower gears. Modern cars are designed to deliver power even when engine revs are quite low and provided you haven't lost momentum as you slow down you will be surprised how late you can leave a downward gear change without risking an engine stall.

4. Avoid manoeuvring whilst the engine is cold if at all possible

Cold engines use more fuel. Do any manoeuvring before you get out of the vehicle rather than when you return to the vehicle (for example by reversing into parking places or driveways rather than reversing out). Not only does this save fuel, it is also a much safer way to emerge onto a road.

Finally, if you need to use a manual choke to start the vehicle, always remember to press it back in once the engine is sufficiently warm. Driving safety is paramount, so never sacrifice safety for fuel saving.

The above behaviours will not only save you fuel they will also save wear and tear on the car's engine, brakes and tyres thus saving you even more money. By driving less

impulsively and continually planning ahead you will not only save money you will also become an even safer driver. So save money, save lives, save our planet - adopt an eco-safe style of driving.

Highway Code study

Rules: 103, 113 - 115, 121, 127 - 129, 154, 164 - 169, 274, 276 - 287.