

# Motorcycle Handbook

## A Guide to Safe Riding

LICENSING AGENCY





# Table of Contents

This Handbook	5
Part 1 : Why Read This Handbook?	7
Motorcycle Licence	8
Part 2 : Be Aware	11
Alcohol	11
Other Drugs or Medical Conditions	12
Tiredness	12
Relying on Other Road Users for Your Safety	13
Part 3 : What to Wear	15
Helmet	15
Eye and Face Protection	13
Clothing	17
Part 4 : What to Ride	19
Which Bike is Right For You?	19
Be Careful With a Different Bike	20

Part 5 :	Starting Out	23
	A Simple Guide to the Parts of a Bike	24
	Setting Up for Yourself and Your Bike	25
	Safety Checks to Make Before Each Ride	26
Part 6:	Look Ahead and Be Seen	31
	Looking Ahead	31
	Good Positioning	32
	Place Yourself Where You Are as Safe as Possible	32
	Headlight	32
	Indicators and Brake Lights	33
	Sound Your Horn	34
	Be Seen To Be Safe	34
Part 7 :	Stay Away from Danger	37
	Keeping a Safe Space	37
	Scanning	41
	Remember to Plan	42
Part 8 :	Grip On the Road	45
	Slippery Roads	45
	Bumpy Roads and Potholes	46

Part 9:	Night Riding	49
	Seeing and Being Seen at Night	49
	Take Care	50
Part 10:	Pillion Passenger and Loads	53
	Carrying a Pillion Passenger	53
	Carrying a Load	54
Part 11:	Look After Your Bike	57
	Maintenance	57
Part 12:	Emergencies	61
	Emergency Braking	61
	Skidding	62
	Swerving	63
	Bumps and Holes	64
	Eye Sight	64
	Animal Warning	64
	Blow-out	65
	Mechanical Problems	66
	Pulling Off the Road	68
	Dealing With a Crash	68
	Index	70





## *This Handbook*

The aim of this handbook is to help you to become a safe motorcycle rider and is based on an approach called defensive riding. The handbook is divided into 12 parts. You should read them all and try the Check Your Understanding questions at the end of each part. These questions let you:

- review the information
- check your understanding.

Road safety is important to all road users and especially to motorcyclists. In a crash you have less protection than a driver.

Please keep in mind that getting your licence, even after all the training, does not make you an experienced and safe rider. It takes years of practice to learn all the skills and correct riding techniques. Remember, as an inexperienced rider, you are more likely to be involved in a crash than an experienced rider.

In the meantime, this handbook can be a great help. When it says 'bike' this means any motorcycle or motor scooter. If it is talking about a specific kind of bike, it will use more specific terms. Otherwise, it will simply say 'bike'. When it says 'rider' it means motorcycle or motor scooter rider.

Bike riders must obey the same rules as drivers. The Light Motor Vehicle Handbook has general rule information for all road users and should be read with this handbook.



## *Part 2: Be Aware*

There are many hazards on the road for all riders, so it makes sense to try to be ready for anything.

Build up your skills gradually by riding in daylight before riding at night. You are almost twice as likely to have a crash in your first months of riding. In the meantime, slow down and give yourself more space on the road by thinking ahead. Do not be overconfident, impatient or in the wrong mood to ride, such as when you are angry or upset. Learn to identify danger and how to deal with it.

### **Alcohol**

You must not ride or drive under the influence of alcohol because it:

- reduces your ability to judge risks including distance and speed
- affects your sense of balance
- makes you take risks
- makes it difficult to concentrate and control your bike at the same time.

If you ride under the influence of alcohol you might not see hazards, or react to them in time to avoid a crash.

## Other Drugs or Medical Conditions

Any kind of drug can affect your ability to ride. Check with a pharmacist or doctor before you ride. Mixing drugs with alcohol or other drugs can be especially dangerous. If you are not sure about a drug you have taken, do not ride.

If you have a medical condition which might affect your ability to ride, such as diabetes or epilepsy, you must check with the RTA whether you are eligible for a learner licence or licence. If you develop such a condition once you have a learner licence or licence, you must advise the RTA.

## Tiredness

Riding a motorcycle is more tiring than driving a car. Tiredness and dehydration in hot weather makes it difficult for you to make decisions, especially quick decisions. Being tired affects concentration, balance and vision. If you are tired, do not ride.

Make your riding less tiring by:

- wearing protective clothing because it helps prevent dehydration
- avoiding alcohol and drugs
- making frequent stops if you are riding for a long time
- resting before you start
- not riding during those times when you would normally be asleep
- avoiding busy traffic.

## Relying on Other Road Users for Your Safety

You are responsible for your own safety. Do not expect other road users to look after you. Even if you are wearing bright clothing and making eye contact, do not assume that they have seen you.

## Check Your Understanding

*(Answers to these review questions are upside down at the bottom of this page)*

**Q1. You are planning a long trip, but you have a cold. You want to take medication. You should:**

- A take some medicine to make you feel better
- B ask your doctor or pharmacist whether the cold medicine will make you sleepy or drowsy
- C try to get there as quickly as possible, so that you can rest when you arrive.

**Q2. Here are three types of drugs which people sometimes take: alcohol, medicines prescribed by a doctor and medicines sold by a pharmacist. Which drug may affect your riding?**

- A Only alcohol.
- B Only medicines given to you by your doctor.
- C All three types.





## *Part 6: Look Ahead and Be Seen*

As a motorcyclist you need to be seen by other drivers. You need to see clearly around you to think ahead and be ready to respond before things happen. Remember that you are sharing the road with others, so ride cooperatively in traffic.

### **Looking Ahead**

Being ready to respond to things before they happen. It is not as hard as it sounds. Experienced riders are very good at it, which is one reason why they are usually safer.

Help yourself by doing the following:

- Always turn your head and looking ahead to where you want to go.
- Position yourself on the road so you can see around corners.
- Lean with your bike while you turn, keeping your head up and line of sight level with the road.
- When pulling out from the kerb, position your bike so you can see the traffic in both directions.
- If you are making a U-turn, have a clear view of traffic in both directions.
- At intersections do not count on other vehicles giving way to you.
- Watch the road ahead by looking through or over the top of other vehicles.

## Good Positioning

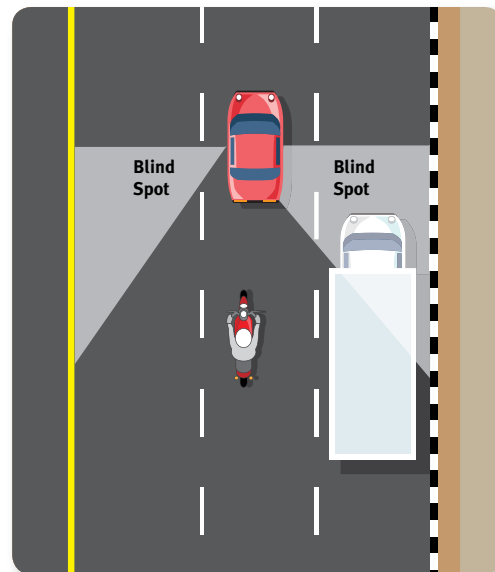
Place yourself on the road where you can see and be seen. Ride in the left-hand wheel track of the road, where you can be seen in both the rear vision mirror and the external mirror of the car in front of you. You can also see vehicles coming the other way and be seen by them.

## Place Yourself Where You Are as Safe as Possible

- Place yourself where you can see and be seen by other drivers.
- Most crashes between a bike and a vehicle happen at intersections, so position yourself where you can be seen and have as much room as possible to avoid a crash.
- Blind spots beside other vehicles are dangerous because drivers cannot see you.

## Headlight

Riding with your headlight on during the day will help you to be seen by other road users. If you have your headlight on during the day, always use low beam.

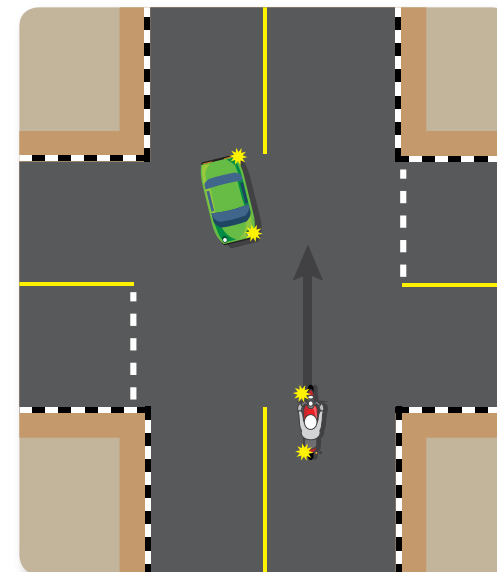


## Indicators and Brake Lights

Indicators and brake lights tell other drivers what you are about to do.

Before you turn or change lanes, you must use your indicators. Send clear messages to the other traffic. Turn your indicator off afterwards, because if you leave it on after you have made the turn you are giving the wrong message, which could be dangerous.

Start braking early so drivers know that you are about to slow down.



*Giving the wrong signals could lead to danger.*

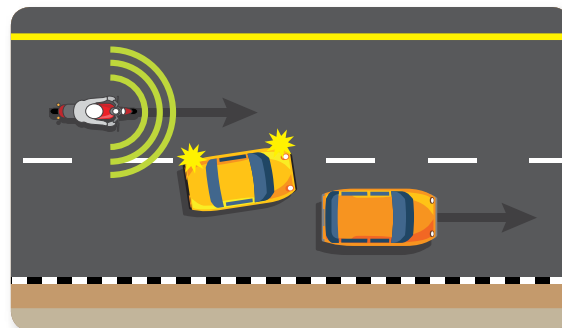


## Sound Your Horn

Sound your horn as a warning in case of danger to let other road users, who have not seen you, know that you are there.

Never rely on the horn though, because it may not be heard.

Always be ready to avoid a crash.



## Be Seen To Be Safe

Wearing brightly coloured or reflective helmets and clothing helps other drivers see you. Yellow, orange and red are colours which stand out against most backgrounds. Reflective tape on your clothing or your bike works well at night, and a reflective vest is more noticeable to drivers behind you than a tail light.

There may still be drivers who simply do not see you, or who do not obey the road rules. You need to be ready to avoid a crash at all times.



## Check Your Understanding

*(Answers to these review questions are upside down at the bottom of this page)*

**Q1. Farid is about to pull out from the kerb to join the traffic flow. He should:**

- A accelerate as quickly as possible, so that he is going faster than the traffic and it cannot catch him
- B put on his indicator, because that gives him right of way
- C make sure he positions the bike so he can see the traffic in both directions before pulling out.

**Q2. The three best ways to make yourself be seen are to:**

- A ride with your headlight on, ride where you can be seen and wear bright clothing
- B sound your horn, keep to the left of the road and flash your headlight
- C all of the above.

**Q3. At an intersection you should:**

- A change lanes to get past other vehicles
- B choose a lane position which will enable you to be seen by other drivers
- C sound your horn and then speed through as quickly as possible.



## Part 7: Stay Away from Danger

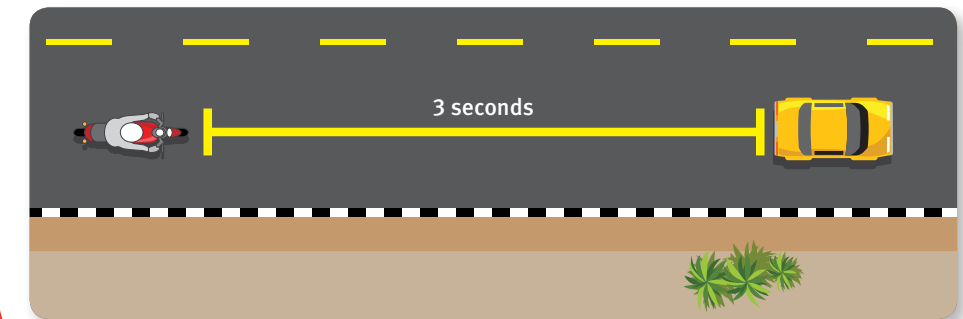
Stay as far away as possible from the things that can hurt you on the road.

### Keeping a Safe Space

Any mistake, yours or someone else's, can be very serious for you as a rider. Keeping a safe space is the best protection you can have. The more space you have around you, the more time you have to see trouble and work out a way to avoid it. Of course, that only works if you keep your eyes open and your mind alert.

#### The 3 Second Gap

Measuring a safe following distance is simple. When the vehicle ahead of you passes a tree or something similar, use that as a reference point and start counting – “one thousand and one, one thousand and two, one thousand and three”. If you get to the tree before you finish counting, you are too close. After a while you will get good at judging this gap.



## In Front

As an unprotected rider, you should try to keep a 3 second gap between you and the vehicle in front, so you:

- have more time to stop in an emergency
- are able to see better over and around the vehicle in front of you
- can see traffic signals, road signs and hazards well ahead
- be able to avoid potholes and other road surface hazards
- have more time to plan your response.

If you are too close, you may pay too much attention to the vehicle in front and not of what is ahead.

There are times when you will want to be even further than 3 seconds away. They include:

- poor riding conditions when it is harder to be seen (for example riding at night)
- on slippery, sandy or uneven road surfaces
- on a high speed roads
- being behind a big vehicle which is hard to see around.

Do not ride too close behind another vehicle. They might stop suddenly and you might not be able to stop in time to avoid a crash.

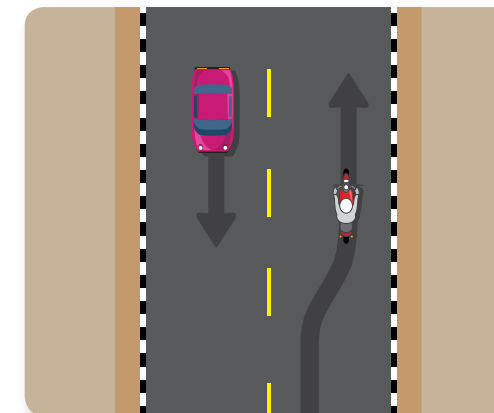
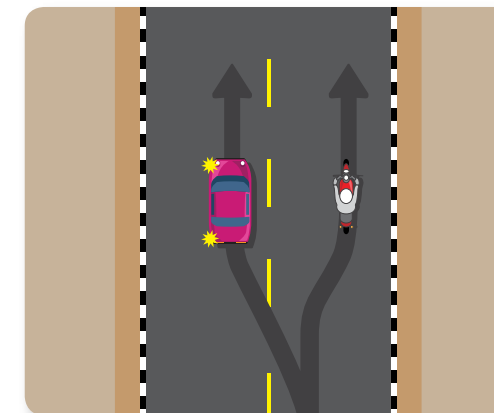
## To the Side

When riding in traffic you can move from one side of your lane to the other, away from other vehicles, and make a bigger safety zone. Experienced riders move lane position depending on traffic – but they always check their mirrors and do a headcheck before they do!

A headcheck means looking back behind you to make sure nothing is about to pass you. Using mirrors is good, but sometimes you will need to look as well.

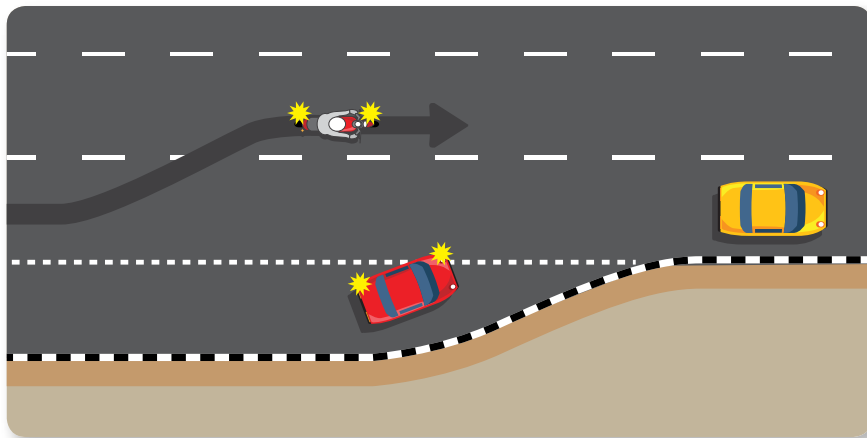
Consider changing position when:

- You are being overtaken or passed by another vehicle.
- You are approaching an intersection. If you see a car that could turn into your path, assume that it will and be ready for it.
- You are passing parked cars or vehicles waiting to turn left. Keep to the left part of the lane, away from the possibility of doors opening or pedestrians stepping out from between cars.





- A driver is pulling out from the kerb. Some people do not turn their heads to do a headcheck to see if there is traffic coming up, and bikes can be hard to see. The car might also be doing a U-turn across your path, instead of just going straight ahead.
- In traffic you need a full lane to yourself to be able to move safely if a problem comes up. Avoid being trapped in a small space with cars sharing your lane, by positioning yourself away from the extreme edges of the lane.
- There is another vehicle beside you in the next lane. They may move over on you at any time. Move forward or drop back until you are in a free space.
- Vehicles are merging. At places such as freeway entrance ramps, make room for entering traffic by changing speed or changing lanes.



## Behind

If someone is too close behind you, slow down and move back yourself to increase the space between you and the car in front. Then let the car behind overtake you where you can see it.

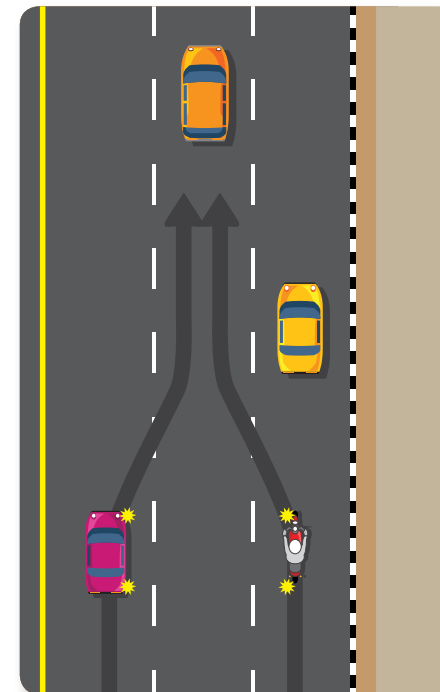
## Scanning

Scanning means gathering information about the road scene around you by looking ahead, from side to side and in your rear view mirrors to identify dangers. You do not have to look directly at everything. Sort the information in order of its importance to you. It takes practice, but it is worth learning.

Use the height advantage you have on a motorcycle and look over cars in front of you. Use that advantage to see what is coming up ahead.

Combine mirrors and headchecks to give you a picture of what is happening behind you. Do this often and quickly, because what is behind you is important too. Remember, headchecks should only take a second so you can look back to the front quickly.

Always do a headcheck of the lane next to you and behind you, in your own lane, when you change lanes or leave the curb. Another vehicle may be headed for your space, and it may not be visible in your mirrors.



*Make sure you do a headcheck before changing lanes or a situation like this may occur*

## Remember to Plan

Scanning ahead lets you decide what to do about dangers before you get to them, so you can avoid emergency stops or sudden moves. Experienced riders know that other road users make mistakes and try to plan how they will act before it happens.

Pick the safest and easiest way to get to where you want to go. If roads are busy, consider changing your travel plan to a time when there will be less traffic.

## Check Your Understanding

*(Answers to these review questions are upside down at the bottom of the next page)*

**Q1. The gap between your motorcycle and the vehicle ahead, in good conditions, should be at least:**

- A 2 seconds
- B 3 seconds
- C 4 seconds.

**Q2. Jamal is riding along a freeway in the right lane. Cars are moving on to the freeway from the entrance ramp. He should:**

- A accelerate to get ahead of them
- B continue to travel at the same pace and position as it is their responsibility to merge into the traffic safely
- C adjust his speed to increase the distance between his bike and the merging traffic.

**Q3. When you are being followed too closely you should:**

- A travel faster to increase the distance between you and the vehicle
- B brake several times to let the driver know that you think he is driving dangerously
- C slow down and increase the space in front of your motorcycle so you have more time to react, if you need to.

**Q4. Scanning involves:**

- A studying the movements of the car ahead of you
- B looking at the road just ahead of you
- C moving your eyes from side to side to look at the whole road scene.

**Q5. Before changing lanes always do a final:**

- A sound of your horn
- B headcheck
- C flash of your brake lights.

**Q6. To prevent other drivers sharing your lane you should:**

- A ride to the left of your lane
- B ride to the right of your lane
- C not ride at the extreme edges of your lane.





## *Part 8: Grip On the Road*

There are only two patches of rubber connecting you to the road surface and they are smaller than the palm of your hand. There are several things that will make it harder to keep a grip when riding.

### *Slippery Roads*

Many things can make the road surface slippery. Here are some common slippery situations you may find:

- Unmade roads or patches of sand that have collected on sealed roads.
- Wet roads.
- Painted lane and other markings, as well as steel and other naturally smooth surfaces including covers and bridge expansion joints.
- Grease and oil deposited in the middle of lanes, and diesel spills.

Try to avoid slippery patches. If you cannot, reduce your speed before you get to them, ride as upright as you can once you reach them and try to avoid changing gear, turning or using the throttle or the brakes. If you need to brake, use both brakes evenly.



## Bumpy Roads and Potholes

On rough roads, slow down. That does three things:

- gives you time to avoid the worst bumps or holes
- reduces road shocks
- gives your bike's suspension time to work.

Remember that bumps can affect your steering as well as the suspension. To give yourself as much control as possible, raise yourself a little on the footpegs so you can absorb road shocks with your knees and elbows.

## Check Your Understanding

*(Answers to these review questions are upside down at the bottom of this page)*

**Q1. The best way to handle a slippery surface is to:**

- A travel on the right side of the road
- B use the rear brake if you are in trouble
- C reduce your speed.

**Q2. To ride safely along a bumpy road you should:**

- A slow down quickly after the first series of bumps
- B rise slightly on the footpegs to absorb the road shocks
- C sit on the seat and try to steer your way through the bumps.

**Q3. Grease and oil from cars tends to build up:**

- A along the sides of the road
- B in the centre of the lane
- C in the right hand part of the lane.



## *Part 9: Night Riding*

### Seeing and Being Seen at Night

It is harder to see and to be seen at night. Your headlight will not show you the road as clearly as daylight will. Other road users may also have trouble seeing your headlight or tail light because of other traffic.

Your headlight and tail light must be on between sunset and sunrise, when street lights are switched on, and in weather conditions with reduced visibility.

Do not wear a dark tinted or scratched visor or tinted glasses, especially at night. You need to be able to see as clearly as possible.

If an oncoming vehicle has not dipped its high beam, or if its light is too bright for you, slow down and look at the side of the road ahead of you instead of at the vehicle, until it has gone past. Often there is a line there that you can use as a guide. That way you can keep track of where the road is going, and your vision will not be affected.

The tail lights of the traffic you are following can show you which way the road goes. If tail lights ahead of you bounce up and down, expect a rough road surface ahead.

## Take Care

Ride more slowly at night to give yourself more time to react to problems. Ride further away from other traffic; it is difficult to judge distance and speed at night. Always remember, do not ride when you are tired!

## Check Your Understanding

*(Answers to these review questions are upside down at the bottom of this page)*

**Q1. Three things you can do to ride more safely at night are:**

- A stay closer to other vehicles, always use the high beam and wear dark, warm clothing
- B reduce your speed, increase the distance between your motorcycle and the car ahead, wear a reflective vest
- C change the type of tyres on your motorcycle, stay closer to other vehicles, keep up with the flow of traffic.

**Q2. Salim notices the lights of the oncoming vehicles seem to bounce up and down. He should:**

- A use his high beam to get a clearer look at the road ahead
- B reduce his speed and expect a change in road conditions
- C move to the centre of the road.







## *Part 10: Pillion Passengers and Loads*

The way your motorcycle behaves will change when you carry a passenger or a load. It will:

- take longer to stop
- accelerate slower
- have less cornering clearance in corners.

### **Carrying a Pillion Passenger**

Passengers who are not used to being on a bike can get scared and affect the safety of the motorcycle. Ask them to relax, hold onto the bike's 'grab rail' or your waist and lean with the bike when it leans. Pillions should wear the same kind of brightly coloured protective clothing and helmet as riders.

#### **Getting Ready**

If it is possible, you should adjust the preload of the bike's suspension when you are carrying extra weight. You may also have to add air to the tyres. Check your owner's manual for instructions.

Adjust your mirrors with you and the passenger both sitting on the bike before you start riding.

#### **On the Ride**

It is important to ride slower and very smoothly when carrying a passenger. Do not talk because this will reduce your concentration and take your attention off the road.

## Carrying a Load

Bikes are not designed to carry large loads, but if you distribute the weight evenly there is no reason why small to medium loads should be a problem. The owner's manual should give you the total amount of weight the bike is designed to carry, including rider and passenger.

There are many different kinds of luggage available for bikes and you may want to use more than one of these to balance the weight when you load your bike. Keep the load:

- Low – if it is high it may unbalance the bike. Do not carry anything heavy on your back.
- Forward – by placing it above or in front of the rear axle. Anything behind the rear axle can have a serious effect on handling.
- Balanced – even weight on either side of bike.
- Secure – by putting it in a special motorcycle bag or strapping it carefully to the bike. Be very careful if you use elastic straps with metal hooks – these are a major cause of eye loss.

Finally, check the load frequently to make sure that it is still secure.



## Check Your Understanding

*(Answers to these review questions are upside down at the bottom of this page)*

**Q1. Paul is taking his brother to his night class. He should:**

- A give him advice on how to ride as a pillion passenger as they are riding
- B not speak at all because he cannot hear him clearly when riding
- C give his brother instructions about being a pillion passenger before they start.

**Q2. When you are carrying a passenger the motorcycle will:**

- A respond more slowly, taking longer to speed up and slow down
- B respond more quickly, because the weight improves the handling ability of the motorcycle
- C not change the way it handles, as long as the weight is spread evenly.