1 The human factor: hints and tips

Associate Logbook page 4

Observer aims

To provide the Associate with the necessary knowledge, understanding, skill and attitude to handle the different situations presented during their riding world.

Objectives for the Associate

1. Understand themselves
2. Conduct vehicle checks
3. Discuss factors related to the journey
4. Understand the effects of the external world on their riding

Explain

The IAM RoadSmart approach to human factors
This is based on understanding and managing the mental, emotional, and physical influences that affect rider performance and decision-making. It is a core part of advanced training philosophy, and it is all about helping riders become safer, more self-aware, and in control not just of the bike, but of themselves.

An IAM RoadSmart rider shows how we need to consider all the influences on a rider
An Associate needs to understand why all the elements are important and how they blend to achieve an IAM RoadSmart rider. Riding on today's roads takes not just skill but a certain amount of understanding and cooperation to communicate and interact with other road users.

Importance of machine checks
A regular, logical, ordered check of your machine's road worthiness assists in keeping moving. Show me, tell me questions can be used to encourage understanding

Understanding the impact of human factors

A rider skilled in vehicle control but lacking in the ordered mental approach to riding will not make an IAM RoadSmart rider. Starting to consider the human factors that affect their riding and beginning the process of self-evaluation puts the Associate well on the way to achieving their goal. An IAM RoadSmart rider will understand the impact of the four human factor elements on their riding. They will use this knowledge to inform all their riding decisions and will always be striving to improve.

When Associates first learnt to ride, they would have started with vehicle control and with practice they developed their skills and muscle memory. Once they had mastered the basic skills, they were able to concentrate on traffic situations and react accordingly.

One of the main things to encourage your Associate to think about is that when they get onto a machine, they are not a blank canvas: they bring their beliefs, life experiences and personalities with them. All these different aspects influence how they ride a machine.

1a The rider

Human nature can impact the way people ride. Their behaviour, emotions, attitude, mood and how tired they are all affect riding.

Coaching scenario: The rider behind the controls
Theme: Understanding how personal factors – such as emotions, attitude, mood, and fatigue – affect riding behaviour and decision-making.
Objective: To help the Associate recognise how their mental and emotional state can influence their riding style, hazard perception, reaction time, and interactions with others on the road.
Example coaching situation: You are conducting an observed ride with an Associate who appears focused but possibly rushed or distracted. As the session progresses, their riding becomes slightly erratic–late braking, impatience with slower vehicles, or frustration at traffic.

Example coaching questions: rider

Reflection-based

1. How were you feeling today before the ride started? Is anything on your mind?
2. How might your current mood or stress level be affecting your riding choices?
3. Have you noticed any difference in how you have approached traffic or hazards today compared to a more relaxed ride?

Awareness and impact

1. When you are feeling tired, angry, or distracted, what kind of habits or behaviours creep into your riding?
2. How do you think emotions like frustration or overconfidence could affect hazard perception?
3. Can you recall a time when your mindset led to a risky situation while riding?

Coping strategies

1. What strategies can you use to stay calm or refocus during a ride if you are feeling under pressure?
2. If you noticed your attitude slipping mid-ride, how would you regain composure and control?
3. What would you do differently next time you are about to ride but are not feeling 100%?

1b The motorcycle

Knowing your limitations as a rider is one thing but how often is it 'assumed' machines are capable of the journey we are taking them on? Checking the condition of our machines and knowing their limitations are just as important as knowing our own limitations

Coaching scenario: the vehicle
Theme: Understanding the importance of vehicle condition, limitations, and how it interacts with rider capability and journey demands.

Objective: To encourage the rider to actively assess their machine's roadworthiness, performance limitations, and suitability for each journey – moving away from assumption towards proactive responsibility.

Example **coaching situation:** You're observing an Associate about to begin or already on a journey. Perhaps they are confident but haven't checked tyre condition, ignored a warning light, or are riding a heavily loaded vehicle without adapting speed or braking distance. You pause or debrief to explore this further.

Example coaching questions: the motorcycle

Awareness and maintenance

1. When was the last time you checked the condition of your tyres, brakes, or fluids?
2. Do you routinely check your machine before long journeys – or rely on past reliability?
3. Is there anything about this bike that would make it behave differently in an emergency stop?

Capability and suitability

1. How well suited is this machine to the journey you are doing today?
2. Have you ridden this particular motorcycle in poor weather or on challenging roads before?
3. If you had to make a rapid stop or evasive move – how would the bike respond?

Assumptions vs preparedness

1. Do you feel confident this machine is as prepared for this journey as you are?
2. Have you ever been in a situation where your bike's performance did not match what you needed?
3. How do you account for machine limitations when planning routes, overtakes, or speed?

1c The journey

Every journey has a reason behind it; whether a person is going to work or riding to the local shops, they are able to justify their journey. However, prompt your Associate to consider if they always think about the ideal amount of time to make the journey and allow additional time, or do they judge journey time by the minimum time to get somewhere?

Example coaching questions: the journey

Coaching scenario: the journey
Theme: Understanding how the purpose, timing and planning of a journey influences riding behaviour, stress levels, and risk management.

Objective: To help your Associate recognise the influence that journey purpose, time pressure, and planning have on their mindset and riding performance – and to encourage a more proactive, considered approach to journey management.

Example coaching situation: Your Associate appears time-focused – perhaps checking the clock, slightly hurrying through decisions, or vocalising frustration with traffic. The route is familiar, but they seem focused on the destination rather than the ride.

Purpose and planning

1. What is the purpose behind your ride today – how important does it feel?
2. How much time did you allow yourself for this journey?
3. What would you do differently if this ride was part of a longer or unfamiliar journey?

Time pressure and judgement

1. Do you plan for best-case or worst-case scenarios when judging journey time?
2. How do you feel and respond when unexpected delays occur?
3. If you are running late, what changes in your riding – speed, decisions, reactions?

Adaptability

1. What contingency plans do you make if things do not go to schedule?
2. How do you adapt your approach if the road or traffic conditions change suddenly?
3. How different would your ride feel if you allowed an extra 10 minutes?

1d The wider world

The Associate needs to understand external influences and manage them effectively as a crucial part of safe riding. Communicating with others and anticipating their actions takes skill and concentration. Situational awareness is crucial in becoming a well-rounded rider.

Example coaching questions: the wider world

Coaching scenario: the wider world
Theme: Recognising and managing the influence of external factors – other road users, environmental changes, and social pressures – on riding decisions.

Objective: To help your Associate develop heightened situational awareness, improve their ability to communicate, anticipate, and adapt to other road users and external influences, and maintain calm control in unpredictable environments.

Example coaching situation:
During an Observed ride, your Associate encounters a mix of challenging external factors – tailgaters, impatient riders, a pedestrian crossing without looking, or sudden weather changes. You observe their responses and reactions, then initiate a reflective conversation at a safe stopping point.

Awareness and anticipation

1. What do you notice about the road users around you right now?
2. How early do you tend to pick up on changes in traffic flow or body language of other road users?
3. What behaviours from others have caught you off guard in the past?

Adaptability and control

1. How do you typically respond to unpredictable riders or pedestrians?
2. When someone puts pressure on you – for example by tailgating – how do you keep your focus?
3. Do you ever find yourself reacting emotionally to others on the road?

Communication and interpretation

1. What messages are you giving to other road users through your position, speed, or indicators?
2. How do you judge if someone has seen or understood your intentions?
3. In what ways can you signal to others more clearly or confidently?

External pressures and environmental influence

1. How do external pressures – like being late, traffic volume, or poor weather – affect your judgement?
2. What could you do to stay one step ahead in heavy or unpredictable conditions?
3. Have you ever made a decision based on what others were doing – not what was safest?

2 IPSGA: hints and tips

Associate Logbook page 10

Observer aims

To provide the Associate with the necessary knowledge, understanding, skill and attitude to be able to consider each stage of IPSGA in sequence, revisiting the appropriate stage as new information becomes available.

Objectives for the Associate

1. Demonstrate understanding and application of the system

Explain

Why we use IPSGA
The IPSGA system of motorcycle control is a trusted and effective method of creating time to negotiate a hazard safely

TUG
TUG means Take – Use – Give information
By developing Observation, Anticipation and Planning skills, the Associate will be able to identify hazards at the earliest opportunity and therefore have more time to plan

2c Information

Understanding the system

Make sure your Associate understands the information phase of the system is not a standalone part of the system and is integral to all other phases.

- Is your Associate thinking of the information phase as just one stand-alone part of the system? This must be avoided as information may change at any time and then the system needs to be considered again
- Does your Associate understand the system should be considered in sequence and the appropriate feature visited and adjusted if required, but is not yet managing to put everything together?
- Is your Associate able to demonstrate how the information phase of the system runs throughout and feeds into all the phases and do they consider all phases on the approach to every hazard?

Taking information

The Associate needs to demonstrate their ability to take in information. All-round scanning is where most of the information will come from. However, encourage the Associate to use other senses, e.g. country smells, hearing sirens, and/or feeling any abnormalities with the steering

Using information

The Associate will gather the information taken and decide what they are going to do.

They need to use the information to link possibilities, e.g.

- On a hill, a cloud of exhaust smoke from an HGV suggests that it may be changing down a gear to cope with the hill
- A cluster of lamp posts may indicate a roundabout
- A single lamp post may indicate a junction opposite it

Giving information

Your Associate will need to understand how to communicate with other road users. Advanced riders need to be able to demonstrate:

- **Positioning:** This is the first method of communicating with other road users. Does your Associate adopt a position that avoids confusion?
- **Signals:** A signal needs to be timely and accurate. Does your Associate consider their signals at the appropriate time and apply where necessary?
- **Non-verbal communication:** Does the Associate make eye contact to confirm the intentions of the other road users? Remind them to look at the rider/driver not just the vehicle.

Example coaching questions: information phase (Taking, Using, Giving)

1. What hazards can you see ahead? (taking information)
2. How will they affect your approach? (using information)
3. How can you prepare? (using information)
4. How can you make your intentions clear to other traffic? (giving information)

Coaching tips for Taking, Using and Giving Information:

- ✓ Encourage the rider to scan for traffic, pedestrians, and road signs. Emphasise taking in all available information (mirrors, blind spots, signals from other road users).
- ✓ Encourage early decision-making based on available information.
- ✓ Remind the Associate that other road users rely on their signals and positioning to anticipate movements.
- ✓ Reinforce the importance of clear and decisive communication – being hesitant or using last-minute signalling can confuse others.

2d Position

IAM RoadSmart riders need to demonstrate how the position of their machine promotes safety, encourages stability, and where possible allows them to extend their view and assists with the communication between them and other road users. The Associate needs to show how they decide their road position based on what they can and cannot see, the road layout and traffic conditions and circumstances that may reasonably be expected to develop.

Example coaching questions: position phase

1. Where should you position your machine for safety and the best view here?
2. What will your position tell other road users?
3. Where should you position to see further into the bend?

Coaching tips for position

- ✓ Encourage early positioning – guide them to position well in advance rather than making last-minute adjustments.
- ✓ Reinforce using road markings and surroundings – how road signs, camber, and kerb lines affect positioning.
- ✓ Explain position for safety – how positioning also helps them see hazards earlier (e.g. moving right slightly for a left-hand bend).
- ✓ Encourage lane discipline – remind them to avoid unnecessary lane drifting or hugging the kerb.
- ✓ Encourage position for safety when following – for example, leaving space behind large vehicles to improve visibility.
- ✓ Encourage using safety bubble for hazards – adjusting it for parked cars, cyclists, or upcoming bends.

2e Speed

The Associate needs to choose a speed that is appropriate to negotiate a hazard safely. The speed needs to be legal and allows them to stop safely in the distance they can see to be clear on their own side of the road. Stopping distance comprises of a thinking component and then the distance to brake to a stop. Discuss the 'two second rule' as a way of assessing a good following distance smooth operation of the accelerator and brakes gives a comfortable ride and reduces stress, therefore, avoiding jerky or pulsing accelerator and movement and harsh braking events. Using acceleration sense when appropriate will avoid unnecessary brake applications (but where brake lights are required, they should be illuminated by gentle pressure on the pedal)

Example coaching questions: speed phase

1. How can you safely reduce speed while warning others?
2. How can you reduce speed smoothly while giving information to others?
3. How should your speed change as you approach this hazard?

Coaching tips for speed

- ✓ Focus on the 'Safe, appropriate, limit' approach – teach the Associate to consider the safety factors, what is appropriate for the conditions, and the speed limit
- ✓ Encourage early speed adjustments – emphasise slowing down before reaching a hazard, allowing time for gears and the vehicle to settle; not leaving things to the last second
- ✓ Reinforce the need to match speed to vision – less vision = lower speed
- ✓ Highlight using speed variation for communication – slowing early gives following traffic time to react
- ✓ Encourage progressive braking – avoid harsh braking by encouraging early mirror checks and planned three-stage braking
- ✓ Encourage smooth transitions – reinforce the importance of balanced braking for stability

2f Gear

To be able to ensure the motorcycle responds correctly, the Associate needs to be in the appropriate gear for the situation. It may be necessary to select a different gear for greater flexibility even though the speed has not changed. Associates should have a good understanding of the working range for each gear and how to effectively make best use of an automatic or semi-automatic gearbox. They need to understand the working range for each gear and be able to correctly use an automatic gearbox. Riders of electric machines will generally not need to select a gear. However, they will need to allow the machine to settle after the speed phase, considering the gear phase at this point allows time for this transition.

Example coaching questions: gear phase

1. What gear do you think would give you the best control here?
2. How can you choose the right gear for a smooth exit?
3. Does this gear allow you to increase or reduce speed if required?

Coaching tips for gear

- ✓ Encourage the Associate to select the correct gear before they enter the hazard (e.g. before entering a bend or junction)
- ✓ Reinforce using gears for control, not speed – lower gears give more control on bends, hills and slow manoeuvres, and are not just for increasing speed
- ✓ Discuss engine braking – explain how using a lower gear helps slow the machine without over-relying on the brakes, especially on downhill slopes
- ✓ Discourage unnecessary gear changes – it may be appropriate to block-change gears (e.g. 4th to 2nd) if appropriate, reducing wear, and improving efficiency. Automatic gearboxes may well have switchable modes more appropriate for holding a gear
- ✓ Encourage matching gear to road conditions – for example, using lower gears for sharp bends. Ideally, they should use a gear that when negotiating a hazard will allow them to increase or reduce speed to safely progress through it
- ✓ Highlight avoiding coasting – ensure your Associate understands why riding in neutral or with the clutch down reduces control and increases stopping distances

2g Acceleration

The Associate should apply the correct degree of acceleration to negotiate and leave the hazard safely; positive throttle application will aid stability

Example coaching questions: acceleration phase

1. How should you apply acceleration here for a smooth exit?
2. How should you accelerate to maintain control and match traffic speed?

Coaching tips for acceleration

- ✓ Encourage smooth acceleration – they should avoid sudden throttle inputs, especially in wet or icy conditions
- ✓ Emphasise matching acceleration to road conditions – teach how road grip affects power delivery (e.g. less acceleration on wet roads)
- ✓ Highlight the need to use progressive acceleration – to apply power gradually as road and traffic conditions allow
- ✓ Explain weight transfer – show how hard acceleration shifts weight to the back wheels, affecting grip and steering
- ✓ Explain acceleration sense – encourage them to judge when to accelerate based on road layout and traffic flow
- ✓ Emphasise eco-riding – smooth acceleration saves fuel and reduces wear on the motorcycle

Tyre-grip trade-off

A motorcycle's tyre only has a certain amount of grip which is divided between steering, acceleration or braking. Careful braking and accelerating leave plenty of grip available for steering; ideally, braking should be completed before steering is applied.

Common errors: IPSGA

1 Incomplete or inaccurate information gathering

- Does not scan far enough ahead to gather enough useful information
- Misses critical visual clues, such as road signs, hazards or traffic flows
- Focuses on only one element (e.g. road markings) and misses others (e.g. pedestrian movement, other road users)

Coach with: 'Did you gather information from all relevant sources – road signs, the road layout, surrounding traffic, and conditions?'

2 Not considering the whole picture in positioning

- Positions too early or too late relative to hazards, intersections or other vehicles
- Does not adjust position when conditions change (e.g. moving out for better visibility, or lane discipline)
- Fails to position for smoothness in overtaking, junctions or bends

Coach with: 'Did your position give you the best view / room for adjustments needed ahead?'

3 Incorrect or delayed speed adjustment

- Does not adapt speed early enough to match the road layout, traffic or conditions
- Keeps a high speed when it is inappropriate (e.g. near a junction, bend or slow-moving traffic)
- Brakes too late or aggressively, instead of adjusting speed smoothly

Coach with: 'Was your speed set early enough to allow smooth progression through the next stage?'

4 Not selecting the correct gear

- Changes gear too late or too early, disrupting the flow or causing delays
- Uses a higher gear than necessary, which reduces control, especially in curves, junctions or while overtaking
- Does not adjust gear to allow smooth deceleration, acceleration or cornering

Coach with: 'Was your gear choice appropriate for the conditions and your desired control?'

5 Lack of anticipation or forward planning

- Moves through the IPSGA stages reactively rather than proactively
- Fails to anticipate what's ahead – such as upcoming hazards, changes in traffic speed, or road layout
- Does not adjust the system based on new information coming in (e.g. changing weather)

Coach with: 'How far ahead did you plan each stage of your approach? Were you thinking ahead enough to make adjustments?'

6 Not adapting IPSGA to changing road conditions

- Uses a rigid approach to the IPSGA stages rather than adjusting based on real-time conditions (e.g. poor weather, heavy traffic)
- Fails to account for roadworks, pedestrian crossings, or unfamiliar road layouts
- Does not adjust the positioning, speed or gear when conditions change suddenly (e.g. entering a built-up area)

Coach with: 'Did you adapt each stage of IPSGA to the conditions, or did you use a one-size-fits-all approach?'

7 Inconsistent use of the IPSGA system

- Skips stages of the IPSGA system, especially when under pressure or when not aware of the full context of a situation
- Does not follow through with all stages (e.g. fails to adjust acceleration when necessary after selecting the correct gear)
- Over-relies on one or two stages of the system, neglecting others (e.g. focuses on information but does not adjust speed)

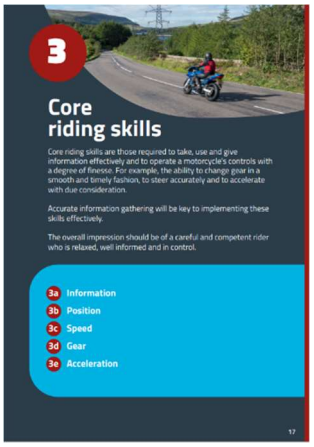
Coach with: 'Were you consistent in following all stages of IPSGA, or did you skip any steps because of external pressures?'

8 Lack of review or reflection after each manoeuvre

- Does not reflect on each IPSGA stage after completing a manoeuvre (e.g. overtaking)
- Does not recognise areas where they could improve in the use of the system for smoother or safer riding
- Fails to adjust their use of the system based on experience or feedback

Coach with: 'How was your use of the IPSGA in that manoeuvre? What would you tweak next time?'

3 Core riding skills: hints and tips



Associate Logbook page: 17
Video: Core riding skills

Observer aims

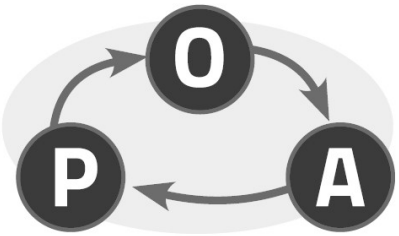
To provide the Associate with the necessary knowledge, understanding, skill and attitude to ride safely using ISPGA

Objectives for the Associate

1. Demonstrate how they Observe, Anticipate and Plan for hazards
2. Demonstrate how they use appropriate signals to communicate with other road users
3. Demonstrate smooth and accurate operation of controls

Explain

Core riding skills
These are the skills needed to operate a motorcycle's controls with the high degree of finesse required to be an IAM RoadSmart rider



Ask the Associate to demonstrate using Observation, Anticipation and Planning (OAP) as part of their riding

Example coaching questions: core riding skills

Observation and awareness

1. What did you notice early on in that situation?
2. How far ahead were you looking on that stretch?
3. What clues helped you anticipate what was about to happen?
4. Did anything catch you by surprise? Why do you think that was?
5. How did you manage your peripheral observations while staying focused on your plan?

Planning and anticipation

1. What was your plan before you entered that hazard?
2. What options did you consider before making your decision?
3. How did the behaviour of others influence your riding strategy?
4. How far ahead were you planning in that scenario?
5. How would you adjust your plan if conditions suddenly changed?

Vehicle positioning

1. Why did you choose that position on the road?
2. How did your road positioning help (or hinder) visibility and safety?
3. Where was your safety bubble and how did you maintain it?
4. What would have been a better position and why?
5. How does your positioning reflect an advanced level of awareness?

Speed and control

1. Was your speed appropriate for what you could see, reasonably expect, and the road conditions?
2. How smoothly did you apply the brakes or accelerate?
3. How did your speed support your decision making?
4. Would a different speed have given you more options?
5. How did your control inputs affect the balance of the machine?

Use of gears

1. What was your reason for selecting that gear at that point?
2. How did your gear choice support acceleration sense?
3. Could your gear selection have been more efficient or smoother?
4. Did you use the engine and gears to assist with control, or rely too heavily on brakes?

Acceleration sense

1. How did you manage the accelerator through that hazard or bend?
2. Was your acceleration smooth and appropriate for the environment?
3. How did your acceleration affect the machine's stability?
4. Were there any missed opportunities to improve flow through better throttle control?

Mirror use and awareness

1. When and why did you check your mirrors at that moment?
2. Did anything change behind you during that section?
3. How did your mirror checks support your overall situational awareness?
4. Is there anything you missed that you should have seen?

Communication

1. What signals did you use and were they well-timed and necessary?
2. How did you interpret the signals and body language of others?
3. What could you have done to be clearer in your intentions?
4. Did your position or speed help communicate your plan?

Eco-riding and smoothness

1. Were there moments where you could have ridden more economically?
2. What changes would reduce fuel use or emissions without compromising safety?
3. How smooth was your ride overall? What could have made it more refined?
4. What impact does smooth riding have on a pillion, economy, and the machine?

Self-reflection

1. What part of the ride are you most proud of?
2. What would you do differently next time?
3. What skills do you feel need the most attention now?
4. How does this ride compare to your personal standard of excellence?

Common errors: core riding skills

1 Poor observation and awareness
- Fails to check mirrors frequently enough or uses them reactively rather than proactively
- Does not perform 360-degree checks (blind spots, rear-view mirror, side mirrors)
- Misses vulnerable road users (e.g. cyclists, pedestrians, motorcyclists) or other vehicles in blind spots

Coach with: 'Did you consistently check your mirrors and surroundings before making any decision or change?'

2 Incorrect or late steering inputs
- Over-corrects or under-corrects steering in bends or when avoiding obstacles
- Fails to anticipate steering adjustments based on the road layout ahead
- Steers too early or too late, which causes an unbalanced or uncomfortable ride

Coach with: 'Did your steering inputs feel smooth, controlled and timely, or did they cause any unsettling movements?'

3 Poor speed control and judgment
- Maintains an inappropriate speed for the road conditions (too fast or too slow)
- Does not adjust speed for bends, junctions, or areas with potential hazards
- Relies on speedometers rather than adjusts speed based on feel and the environment

Coach with: 'Was your speed matched to the conditions, and did you adjust it proactively as situations changed?'

4 Inconsistent use of gears
- Does not use gears to their full potential (e.g. stays in a high gear when more control is needed)
- Changes gears too late or too early, causing unnecessary jerking or loss of power
- Fails to use engine braking when appropriate, especially in downhill situations

Coach with: 'Did you select the correct gear for the road conditions, and was your gear shift smooth and timely?'

5 Lack of smooth acceleration and deceleration
- Accelerates too quickly or too harshly when entering traffic or overtaking
- Fails to decelerate in a controlled manner before junctions, bends or obstacles
- Inconsistent throttle use, leading to jerky movements or delayed responses

Coach with: 'Did you accelerate and decelerate smoothly? Were there any points where you had to overcompensate?'

6 Inefficient or dangerous lane discipline
- Fails to position correctly for turns, bends or overtaking manoeuvres
- Drifts between lanes or cuts across lanes unnecessarily
- Uses the middle or overtaking lanes without reason or purpose

Coach with: 'Did your lane choice allow for clear, safe progression without causing obstruction or difficulty for other road users?'

7 Delayed or poor decision making
- Hesitates when a quick decision is needed (e.g. at a junction or in heavy traffic)
- Reacts too slowly to hazards or changes in the riding environment
- Fails to make adjustments in response to visible clues (e.g. adjusting speed for emerging hazards)

Coach with: 'Did you make decisions quickly enough to maintain smooth progress, or were there any delays in your actions?'

8 Not using the handbrake or clutch correctly
- Fails to use the handbrake on steep gradients or during stops
- Does not engage the clutch fully or lets it slip unnecessarily when starting or stopping
- Holds the clutch down unnecessarily while stationary, causing unnecessary wear or lack of control

Coach with: 'Did you manage the handbrake and clutch smoothly, and were they used effectively for the conditions?'

9 Poor hazard perception and anticipation

- Does not anticipate potential hazards early enough (e.g. pedestrians at crossings, cars pulling out)
- Does not adjust position, speed or awareness in anticipation of emerging hazards
- Relies too much on visible or immediate hazards without considering potential risks from the environment

Coach with: 'Were you anticipating potential hazards before they became a threat, or did you react only when you saw them?'

10 Inadequate positioning in tight spaces

- Struggles to position the machine correctly when manoeuvring in narrow spaces or when parking
- Cuts corners too early or too late, causing damage to the machine or nearby objects
- Does not judge distances accurately when reversing or parking

Coach with: 'Did you position the machine carefully and slowly to avoid obstacles, or was there a risk of contact with other vehicles or structures?'

11 Not accounting for other road users

- Fails to see or anticipate the actions of other road users (e.g. cyclists, pedestrians, other vehicles)
- Does not adjust riding to provide a safe space for others, especially vulnerable road users
- Ignores the behaviour of surrounding traffic, which could affect riding choices

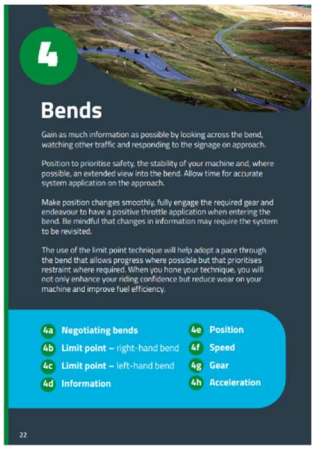
Coach with: 'Did you consider and adjust for the needs and actions of other road users – especially those more vulnerable?'

12 Overcomplicating basic techniques

- Tries to make a simple manoeuvre too complex by focusing too much on unnecessary details
- Becomes distracted or loses focus on basic riding skills while overthinking
- Fails to break down riding into smaller, manageable stages when necessary

Coach with: 'Were you focusing on the essentials, or were you overcomplicating things with unnecessary adjustments?'

4 Bends: hints and tips



Associate Logbook page 22
Video: Bends and limit points on a motorcycle

Observer aims

To provide the Associate with the necessary knowledge, understanding, skill and attitude to corner safely

Objectives for the Associate

1. Demonstrate safe cornering both left-hand bend and right-hand bends
2. Discuss the use of limit points when cornering
3. Discuss the five key principles of safe cornering

Explain

When a machine is most stable
A machine is most stable when travelling in a straight line on a level course and at a constant speed.

The characteristics that affect stability
These are the motorcycle specifications, the type of ride, and any stability control.

The tyre-grip trade-off
The more grip is used for accelerating or braking, the less there is for steering and vice-versa.

Information obtained through observations links
Road signs and markings.
Position, angle and speed of vehicles sharing the road, including the angle of headlights at night. The presence of danger poles (red – left side of road, white – right side of road), cat's eyes, trees, lamp posts, building lines, changes in road surface (varying condition and type), and weather conditions.

The camber
The camber can affect handling in the bend.

- **Crown camber:** the centre of the road is higher than kerbs (the effect on steering is positive on left-hand bends and negative on right-hand bends)
- **Positive or adverse:** positive favours the turn, and adverse works against it
- **Super elevation:** where the whole width of the road is banked up towards the outside edge of the bend, making it favourable for cornering in both directions

Positioning
Three elements to consider when deciding where to position the vehicle are **Safety**, **Stability** and **View**. Extending vision to the furthest point and scanning backwards allows a rider to build an overall picture and then to paint in the intermediate details.

4b/c Limit point

The limit point is the furthest point to which there is an uninterrupted view of the road surface as it disappears around a bend or over a brow. It is the point where the two edges of the road appear to meet. On a left-hand bend, a rider should treat this as where the left-hand verge meets the centre line of the road. If no wider views of the road are available, it is a reliable way of assessing speed of approach to a bend.

Limit point terms

Explain to the Associate that there are several key terms used when talking about limit points:

- **Static:** The limit point is not moving. It is getting closer to the motorcycle and the distance available to stop is reducing. The rider needs to reduce speed to retain a safe stopping plan
- **Moving:** The limit point is moving away but not as quickly as the bike is approaching – again, the distance available to stop is reducing. The rider needs to slow down to retain their safe stopping plan
- **Matched:** The limit point is moving away at least at the rate of the approach; it is possible to stop safely in the distance seen to be clear on the rider's side of the road. If all other conditions allow, the speed of approach can be maintained, and as the limit point improves further, a rider can increase speed if safe and legal

Five key principles of safe cornering

Explain to the Associate that there are five key principles of safe cornering.

1 Correct positioning on approach

Getting the correct position for the bend makes a big difference to the information a rider can Take and Use. It will allow the Associate to choose the best entry point and increase the radius of their path – the entry phase is the busiest.
Left-hand bend – the best position is towards the centre line. However, the **IAM RoadSmart policy is not to teach off-siding to Associates**. They must be aware of the impact of positioning on other road users.
Right-hand bend – the best position is towards the nearside kerb. However, the Associate must be mindful of junctions, physical features, road surface, weather conditions and other road users.

2 Travel at the correct speed

A rider should use the limit point to judge the safe speed to ride around the bend and always be able to stop within the distance they can see to be clear on their own side of the road. If there is good lateral vision, they should be able to see the road ahead for a greater distance – and use the tarmac limit point to decide the correct speed in these instances (a positive throttle will maintain the speed and assist keeping the machine stable).

3 Use the correct gear for that speed

Allowing time for the system will enable the Associate to make a smooth gear selection – one that has the flexibility to both accelerate or slow down if circumstances dictate.

4 Be able to stop in the distance you can see to be clear on your own side of the road

The Associate should always be able to stop safely on their side of the road. If others have to react, the rider should not be there!

5 Apply positive acceleration to maintain speed and balance through the bend

Positive throttle is used to overcome frictional forces introduced by turning. It will also keep the machine settled.

Coaching question examples: Bends

1. How can you judge the severity of this bend before you reach it?
2. Where should you position your machine for safety, the best view and control?
3. How should you adjust your speed to stay in control?
4. Which gear will give you the best control and flexibility through this bend?
5. When is it safe to begin accelerating after a bend?

Coaching tips for bends

- ✓ Encourage your Associate to identify the direction of the bend and the limit point of vision
- ✓ Ask what it means if the limit point is moving towards them as they approach
- ✓ Ask: 'Is the limit point staying still or moving closer, or is the bend tightening?'
- ✓ Discuss benefits of adjusting position, speed and gear early, before entering the bend, so they can see further around the bend without compromising safety
- ✓ Examine road surface and explain the need to reduce speed even further to maintain grip in the wet
- ✓ Get your Associate to consider early (before entering the bend) the right gear to maintain control and accelerate out smoothly
- ✓ Encourage early observation – advise: 'Look as far ahead as possible and use the limit point of vision to judge the bend'
- ✓ Practise different bend types with them – open bends, tightening bends, downhill bends, wet conditions
- ✓ Encourage self-evaluation – 'Did you feel in control throughout that bend? What would you do differently next time?'

Limit point exercises

These two exercises might be helpful as you develop the Associate's competence around bends.

Limit point awareness exercise

Objective: To help the Associate to recognise and respond to the limit point of vision.
Suggested location: A quiet rural road with gentle and tight bends.

Instructions:
1. Ask the Associate to identify the limit point of vision as they approach a bend.
2. Ask the Associate whether it moves away, stays the same, or moves closer as they approach.
3. Confirm if the bend is opening up or tightening
4. Ask how they should adjust their speed and positioning?
5. Provide feedback on their speed and position based on the bend's severity

Positioning for maximum safety and visibility exercise

Objective: To improve the Associate's ability to understand road positioning to enhance safety, visibility and control.
Suggested location: A road with left and right-hand bends where visibility is limited.

Instructions:
1. Before entering a bend, ask the Associate where they should position for safety and the best view through the bend.
2. Confirm their answer and discuss
3. Provide feedback on their speed and position based on the bend's severity

Common errors: bends

1 Inadequate use of limit point of vision
- Does not recognise that the limit point is closing
- Misjudges whether the bend is tightening, easing, or constant
- Relies on road markings or assumptions, not vision-based judgement

Coach with: 'Is the limit point moving away, staying still, or coming closer?'

2 Incorrect positioning for safety and view
- Stays too central or too tight to the verge
- Does not adjust position to maximise vision and safety margins
- Fails to change position early enough, especially on approach

Coach with: 'Where should you be to maximise view while keeping safe space?'

3 Late or harsh speed adjustments
- Brakes in the bend instead of on approach
- Carries too much speed into a tightening bend
- Abruptly decelerates, upsetting balance or grip, especially in poor weather

Coach with: 'Did you set your speed early enough to steer smoothly through?'

4 Incorrect gear selection
- Selects gear too late, often while already steering
- Chooses a gear that's too high, losing control of acceleration
- Does not use gear to help control and balance through the bend

Coach with: 'Did your chosen gear give you the right control and response?'

5 Poor steering discipline
- Plan to make all steering movements timeously and smoothly.
- Avoid rushing into bends and requiring several corrections of steering input.
- Have a good but relaxed grip on the bars and make effective use of counter steering on the bends. Ensure your shoulders and body is relaxed. Being tense will make smooth steering more difficult.

Coach with: 'Was your steering smooth and progressive, or reactive and sharp?'

6 Not planning for oncoming or hidden hazards
- Fails to anticipate vehicles cutting corners
- Does not spot side roads, cyclists, or surface changes mid-bend
- Ignores camber, overhanging vegetation, or mud from agricultural access

Coach with: 'What might be hidden just beyond your view?'

7 Underestimating road conditions
- Does not adjust for wet, icy or gravelled surfaces
- Ignores tyre and brake limitations when grip is reduced
- Trusts too much in traction control or ABS to compensate

Coach with: 'What's your safety margin in these conditions?'

8 Misreading the bend's shape and severity
- Confuses an open bend with a tightening one
- Takes local familiarity for granted ('I know this corner')
- Fails to scan hedge lines, trees, poles and other curve indicators

Coach with: 'How do you know what's coming next?'

9 Not using the full system (IPSGA) effectively
- Rushes from 'Information' straight to 'Go'
- Overlooks systematic speed, gear and position setting
- Does not treat bends as a planned hazard needing full analysis

Coach with: 'What stage of the system are you in right now?'

10 No post-bend reflection or review
- Does not evaluate how well the bend was taken
- Misses learning opportunities from a poor line or misjudged speed
- Carries errors into the next bend due to lack of feedback

Coach with: 'What would you do differently on that bend if you could

5 Junctions and roundabouts: hints and tips

Associate Logbook page 29

Observer aims

To provide the Associate with the necessary knowledge, understanding, skill and attitude to negotiate roundabouts and junctions safely using the system of motorcycle control

5a Junctions

Discussion points

Dealing with complex/hidden junctions

- For junctions partially hidden by buildings, parked cars, or foliage: treat them as closed until proven open.
- Get your associate used to the habit of being ready to stop without shock if something emerges unexpectedly.
- Ask your associate if they have ever heard of 'slow in, positive out' and explain how this can give then a more gentle approach and positive exit, exit positively when clear.

Communicate beyond signalling

Remind your Associate of how sometimes a hand signal or positive eye contact can reinforce intentions when visibility or expectations are uncertain.

Explain

How an Associate demonstrates early Observation, Anticipation and Planning (OAP)

Encourage scanning for junctions well ahead – look for signs like gaps in hedges, parked vehicles, or street lighting changes.

Coach the associate to read the road, ask them what type of junction are they approaching? Who has priority? Where might hazards develop?

Consider using the 'Plan early, act late' mantra and encourage your associate to build a plan early, but be ready to adjust late as new information develops.

Positioning for safety and view

Reinforce adopting the best position to improve view and be seen, slightly adjusting towards the crown or nearside when safe can reveal hidden hazards.

If visibility is restricted, coach 'creep and peep' move slowly and deliberately forward to increase the view without committing too soon.

Remind your associate why we always prioritise position for safety first, then view, then progress.

Priority: never assumed, always confirmed

Coach the associate to never assume priority – even when the Highway Code gives it.

Use the phrase 'priority must be given, not taken' always be ready to give way if in doubt.

Judgement of gaps and safe entry

When emerging, coach how to judge moving traffic speeds and pick safe gaps.

Emphasize "commit decisively" once the decision to go is made – avoid hesitation mid-manoeuvre, which creates risk.

When considering gaps, consider getting your associate to use 'dynamic gap assessment' where we acknowledge the gap but also consider if the gap will stay safe as they move

Approach to junctions exercise

Objective: To develop fine control over approach speed, positioning, and gear choice to match different types of junctions (open, closed, staggered, major/minor).
Suggested location: Pick a short urban or rural route with a variety of junctions (closed, open, blind, busy).

Instructions to Associate:

1. At every junction, approach as though it might change suddenly (a hidden hazard, vehicle emerging, etc.).
2. Talk me through your thought process
    a. What can you see?
    b. What can't you see?
    c. What are you expecting to happen?
3. After the junction ask the Associate
    a. How could you have made that approach even smoother or safer?
    b. Was your gear appropriate for the information available?
4. Emphasize early mirror checks, appropriate positioning for view/safety, slowing early if vision is limited, and adjusting gear pre-entry.
5. Focus on smooth, progressive deceleration — no last-minute braking or rushed gear changes.
6. Remember to reward good forward planning and control; challenge poor anticipation without nitpicking minor execution errors.

Gap assessment and priority challenge exercise

Objective: To sharpen judgment of safe gaps and reinforce defensive handling of priorities at complex junctions.
Suggested location: Use a busier area with several T-junctions or crossroads where priority rules are obvious but practical application may vary (e.g., hesitation from others, aggressive drivers).

Instructions to Associate:

1. Every time they reach a junction to emerge:
    - Ask the Associate to confirm if they have priority or need to give way
    - Predict aloud what the nearest oncoming vehicle(s) might do.
    - Tell you if they are going to Go, hold, or prepare to go
    - If emerging, commit smoothly without delay if it's safe; if holding, show poised readiness.
2. Consider discussing 'what if?' scenarios in the debrief:
    - 'What if that car had accelerated?'
    - 'What if that pedestrian had crossed?'
3. Encourage refining gap selection based on moving traffic, not just fixed distances.
4. Ask your Associate to focus on dynamic risk assessment — it's not about who has the right of way on paper, but what's happening at the time.

5b Roundabouts

Objectives for the Associate (roundabouts)

1. Demonstrate early Observation, Anticipation and Planning when approaching a roundabout
2. Demonstrate safe entry onto a roundabout
3. Discuss the considerations of straight lining (apexing)
4. Demonstrate safe exit

Explain

How the plan boards can help
Plan boards often show the layout of the roundabout, and can assist the Associate to plan their approach.

How can an Associate demonstrate early Observation, Anticipation and Planning (OAP)?
By looking at the sign or plan board on approach, the Associate can identify the required exit at an early stage. This will assist them with deciding their approach position. Lateral scanning will also give an early view of traffic approaching from other roads and assist with Anticipation and Planning. Explain how on the approach to a roundabout, they are able to plan for overtaking opportunities on the exit side – some other road users may not be looking for a progressive exit from the roundabout. Discuss how this may be dictated by the size and type of the vehicle being overtaken.

Gaining an advantage
On approach to a roundabout, the Associate should plan to stop but look for information that allows them to keep going. They should scan for new hazards such as diesel spills or differences in road surfaces that may affect the dynamics of the bike. The exits of roundabouts are common places for a speed limit change, so Associate must look for any important information in these areas.

How to safely enter onto a roundabout
With the approach position and speed chosen, the Associate should merge safely with other traffic already on the roundabout, matching speed where appropriate. They should select the correct gear for the chosen speed while their course is fixed. They should also scan for other road users entering from the left, stationary traffic ahead and vehicles cutting across their path. Progress can be made where vision, circumstances and speed limits permit.

Exiting a roundabout
Looking ahead and extending vision into the new road will help the Associate determine how they leave the roundabout. They should use mirrors before a change of speed or position and consider a blind-spot check. The Associate should indicate if other road users would benefit from this type of signal. They must maintain lane discipline where there is a presence of other hazards.

Straight lining (apexing)

Discuss straight lining (apexing), so that your Associate understands the rules of apexing a roundabout:

- A rider must never straight line a roundabout if it could cause confusion to any other road users, including pedestrians
- A rider must be able to see both kerbs and have good lateral vision
- If a rider reduces the tightness of the turn, which can help with stability, they must apply all-round awareness, reinforced with effective rear observations, before moving across lanes

Explain

The different characteristics of mini-roundabouts
Mini-roundabouts have a different road sign. They can be painted on the road and may be grouped together. Riders must ride around the disc on the road even if this requires slowing down. They should be approached in the same way as normal roundabouts. The Highway Code states that all vehicles must pass around the central markings except large vehicles which are physically incapable of doing so.

Multiple roundabouts
Some complex junctions have a series of mini roundabouts. The Associate should treat each mini roundabout separately and follow the normal rules.

Example coaching questions: Junctions and roundabouts

Approaching junctions

1. What early indicators tell you whether this junction is open or closed?
2. How can you adjust your approach based on the type of junction ahead?
3. What potential hazards might be hidden from view at this junction?
4. How can you use reflections, shadows, or road noise to detect approaching vehicles before you see them?
5. How far ahead should you start adjusting your speed and position for this junction?

Decision making at junctions

1. Who has priority at this junction, and how can you confirm their intentions?
2. What could cause another road users to misinterpret your intentions?
3. If a driver or other rider makes a mistake here, what is your escape plan?
4. How do you balance efficiency with safety when deciding whether to go?
5. If visibility is poor, how can you safely 'create' a gap to get a better view?

Planning and control at junctions

1. What position gives you the best advantage for seeing and being seen?
2. How does the road camber or surface condition affect your approach and exit?
3. How can you use engine braking to improve control as you approach?
4. If this junction is on a gradient, how do you manage control while waiting?
5. How would your approach change in wet, icy or low-traction conditions?

Emerging and exiting at junctions

1. What is the safest way to emerge into a fast-moving traffic flow?
2. How do you assess whether a gap in traffic is large enough?
3. What signs or signals might indicate a hidden pedestrian crossing as you exit?
4. How does your choice of gear affect your ability to accelerate safely?
5. If a vehicle unexpectedly blocks your path as you exit, how should you react?

Approaching roundabouts

1. How can you read traffic flow on the roundabout before you reach the give-way line?
2. What is the earliest point at which you can identify your exit and plan your lane choice?
3. If traffic is heavy, how do you prepare for a safe and efficient entry?
4. How do you decide whether to stop or maintain a rolling approach?
5. What is the best way to communicate your intentions to other road users?

Positioning on roundabouts

1. What factors determine your lane choice before entering this roundabout?
2. If you find yourself in the wrong lane, how can you correct safely?
3. How do you anticipate whether a vehicle might change lanes unexpectedly?
4. How does roundabout camber affect your control and stability?
5. What visual cues help you predict whether a vehicle is about to exit?

Identifying a gap and decision making on roundabouts

1. How can you judge vehicle speeds to determine whether there is a safe gap to enter?
2. If another road user signals incorrectly, how should you react before entering?
3. How does the size and type of vehicle affect its acceleration and the gap you need?
4. What is the best way to handle a roundabout entry with limited visibility?
5. How do you manage situations where other road users hesitate or act unpredictably?

Exiting and acceleration off roundabouts

1. What is the ideal timing for signalling your exit to ensure clarity?
2. How can you adjust your acceleration based on traffic merging from other exits?
3. What should you check before moving across lanes to exit?
4. If your planned exit is blocked, what is the safest way to react?
5. What is the best way to regain normal speed smoothly after exiting?

Roundabout planning and lane discipline exercise

Objective: To improve early hazard detection and lane positioning.
Suggested location: Large multi-lane roundabout with at least four exits.

Instructions:

1. Before reaching the roundabout, ask the Associate what signage they need to scan
2. Ask the Associate to identify the exit they are taking and tell you which lane they need to be in
3. Ask them to tell you what potential hazards they are aware of (pedestrians, cyclists, or vehicles in adjacent lanes)
4. Make sure your Associate uses their mirrors and signals correctly
5. Is your Associate approaching smoothly, avoiding harsh braking and matching their speed for the roundabout conditions?
6. Did they stay in the correctly chosen lane throughout and ensure their lane discipline remained precise?
7. Did they exit smoothly, with no disruption to following traffic and other road users?
8. Did they use the system of vehicle control throughout the exercise?

Coaching tips for roundabouts and junctions

- ✓ Encourage your Associate to finish their planning before reaching the give-way line – reacting too late forces rushed decisions
- ✓ Stress the need to adapt to each roundabout – no two roundabouts require the exact same approach
- ✓ Encourage anticipation of the actions of other road users
- ✓ Promote the use of commentary to try to reinforce habits that could lead to better decision making

Common errors: junctions and roundabouts

1 Inadequate early observation
- Late or rushed observation on approach
- Misses key clues like positioning of other vehicles, indicator use, or road markings
- Does not scan wide enough for vulnerable road users (cyclists, pedestrians, motorcycles)

Coach with: 'What did you know before you got to the give-way line?'

2 Poor timing of decision making
- Hesitates when a safe gap is available
- Rushes to go when there is not a safe gap (impatient or pressured)
- Misjudges the speed or intentions of others

Coach with: 'Did your decision match what was actually happening around you?'

3 Misjudging priority
- Assumes right of way instead of assessing and confirming
- Forgets that other riders/drivers may not follow the rules
- Fails to anticipate unusual behaviour from large vehicles or vulnerable road users

Coach with: 'Did you act on assumption or confirmation?'

4 Incorrect lane use on roundabouts
- Enters or exits from the wrong lane
- Cuts across lanes, especially on multi-lane roundabouts
- Does not follow road markings or local signs carefully

Coach with: 'Did your lane choice match your exit plan and signage?'

5 Poor positioning on approach or exit
- Too wide or too tight on approach to the junction or roundabout
- Strays out of lane when entering or exiting
- Over-positions and closes down others' space

Coach with: 'Were you in the best place to stay safe and visible?'

6 Not adjusting speed smoothly
- Brakes too late and harshly
- Creeps forward indecisively, or rolls unintentionally
- Accelerates aggressively when exiting, without checking mirrors

Coach with: 'Was your speed appropriate for your vision and intention?'

7 Poor use of gears
- Approaches too fast in a high gear
- Delays gear changes until too late (especially after turning)
- Selects a gear that doesn't match intended acceleration

Coach with: 'Was your gear selection smooth and matched to your planned action?'

8 Ineffective or misleading signalling
- Signals too late, too early, or not at all
- Forgets to cancel signal after exiting roundabout
- Gives misleading signals, especially at mini-roundabouts

Coach with: 'Did your signal match your plan – and could others understand it?'

9 Not accounting for vulnerable road users
- Ignores pedestrians at crossings or near junction mouths
- Cuts across cyclists or misses them in blind spots
- Does not anticipate the path of other motorcyclists filtering at junctions

Coach with: 'Did you scan for all types of road users – at ground level and mirror level?'

10 Not reviewing the manoeuvre
- Fails to reflect on positioning, timing or decision making
- Repeats the same approach despite near-misses or awkward timing
- Does not adjust planning based on traffic flow or road design

Coach with: 'If you could take that junction or roundabout again, what would you tweak?'

6 Overtaking: hints and tips

Associate Logbook page 36

Observer aims

To provide the Associate with the necessary knowledge, understanding, skill and attitude to carry out an overtake safely without impacting on other road users

Objectives for the Associate

1. Discuss key safety points regarding overtaking
2. Discuss the legal restrictions on overtaking
3. Describe a three-stage overtake
4. Discuss a momentum overtake

Explain

Why overtaking is hazardous
Overtaking can be considered hazardous because it may bring a vehicle into the path of other vehicles and introduces dangers from the offside, such as emerging traffic or pedestrians.

The meaning of 'an overtake'
An overtake is the process of moving past another vehicle or road user and often involves crossing the centre line onto the other side of the road.

Obeying the speed limit
A rider should never plan to exceed the speed limit in order to overtake.

Key safety points
A rider must:

- Overtake only if they can see far enough ahead to be sure it is safe
- Avoid causing any other vehicle to alter course or speed
- Be able to move back to the nearside in plenty of time
- Be ready to abandon the overtake if necessary
- Plan to avoid being the third road user beside two others (motorways)
- Is there another motorcycle or vehicle looking to overtake (either behind or in front)

Possible conflict

Discuss where your Associate could come into conflict with other road users if they were to overtake at these points:

- At or near road junctions
- Where the road narrows
- Where a vehicle is indicating right
- School crossing areas
- Nearside to a tram stop
- During traffic queues
- At level crossings

Ask your Associate why they need to pay attention to?

- Road markings, signs and junctions
- Driveways, bends and lateral vision
- How much of the road is clear ahead
- The speed of the vehicle they want to overtake
- The position of the return gap after the overtake
- What they can't see

Choosing when to overtake

Outline to your Associate that:

- A rider must never overtake unless it is safe to do so and it does not adversely impact on others
- Road markings, layouts and signs will help establish where to overtake
- Once the decision is made, the overtake should be brisk and within the speed limit, with safe entry to the return gap

What mindset is needed?

Ask your Associate to look for reasons not to overtake. This approach will make them less likely to be affected by the things that make up our 'human factors' as riders. Does the purpose of the journey affect the decision to overtake?

What is a momentum overtake?

Explain that this is when there are no other hazards – a rider is able to approach and overtake the vehicle or obstruction in one smooth manoeuvre with little or no change in speed.

What is a three-stage overtake?

Using the diagram in the Logbook, explain what a three-stage overtake is and how it differs from the momentum overtake. Give an example of where approaching vehicles or other hazards make it necessary to match and follow the vehicle in front while planning an overtake.

Additional dangers when overtaking a line of traffic

Overtaking a line of traffic will present additional safety issues for the Associate, some of which are listed below:

- Longer time spent on the offside
- Potential danger of vehicles ahead pulling out into their path
- The return gap being closed down by traffic

Discuss why the Associate should avoid being overambitious and, instead, consider overtaking in bite-sized pieces by looking for stop-over gaps.

Overtaking near hazards or bends

As with all overtakes, this requires excellent Observation, Anticipation and Planning (OAP) skills. An Associate should look for OAP opportunities on the exit side of roundabouts, bends, etc. They should make sure the object vehicle is committed to its plan of action before they overtake.

Did you know? The weekday peak times for motorcyclists being killed or seriously injured is 7am–10am and 4pm–7pm. By contrast, at weekends there is a single peak around early afternoon (noon–4pm).

NO VISION = NO PERMISSION

Example coaching questions: Overtaking

Planning and preparation

1. What is your reason for overtaking – are you improving safety, flow, or just comfort?
2. Can you clearly see enough road ahead to complete the overtake safely?
3. What clues tell you whether oncoming traffic may appear sooner than expected?
4. Have you considered how the road layout might change just beyond the vehicle you are overtaking?
5. What is the worst-case scenario here, and are you prepared to respond?
6. Is there a safer opportunity coming up further along the road?
7. How will you position your vehicle to maximise vision before pulling out?
8. Which gear gives you the best acceleration without sacrificing control?
9. Are you certain no one is overtaking you at the same time?
10. Is your signal clear and well-timed, or could it be misinterpreted?
11. How does your vehicle's performance influence your overtaking strategy here?
12. Can you complete the overtake within the speed limit?

The overtake

1. Are you accelerating decisively and confidently, without being aggressive?
2. Is your steering input smooth and progressive, keeping the motorcycle stable?
3. Are you scanning the road ahead as well as the vehicle you are passing?
4. Are you giving sufficient clearance when passing a vulnerable road user or large vehicle?
5. How do you judge when to safely return to your lane – are you using all mirrors?
6. Are you using a gentle lateral position shift or a full mirror-signal-manoeuvre check to move out?
7. How does your position change what you can now see?
8. Is the road ahead truly clear and long enough for a safe overtake – or just momentarily empty?
9. Have you ruled out the presence of hidden dips, junctions, or upcoming bends?
10. Are you aware of traffic behind you that may be preparing to overtake as well?
11. Is your gear selection giving you the right power band for smooth, responsive acceleration?
12. Have you rechecked your mirrors and blind spots immediately before committing?
13. Are you overtaking with purpose and control, or just creeping by?
14. How will you judge when it is safe to move back in – what is your visual marker?
15. Are you allowing adequate clearance for both the vehicle you are passing and oncoming traffic?
16. What is your plan if the vehicle ahead speeds up or a new hazard appears during the manoeuvre?

The return

1. Have you ensured there is a safe gap behind before pulling back in?
2. Are you back to a safe and legal speed after the manoeuvre?
3. How did the overtake affect other road users around you – positively or negatively?
4. What could you have done differently to make that overtake smoother or safer?
5. How has that manoeuvre affected your overall risk level in the current traffic flow?

Overtaking cyclists

1. How do weather and road surface influence your passing distance?
2. What could cause the cyclist to change position suddenly, and how would you react?
3. What is the minimum distance between the overtaking motorcycle and the cyclist?

Overtaking on rural roads

1. What signs suggest an upcoming hidden junction or field entrance?
2. How does road camber or tree shadows affect visibility and grip?
3. What is the minimum distance between the overtaking motorcycle and a horse?
4. When overtaking a horse what is the maximum speed we should do?

Overtaking on dual carriageways

1. How do you manage blind spots and speed differences during multi-lane overtakes?
2. What strategy do you use to avoid becoming boxed in by other fast-moving traffic?

Overtaking exercises

Overtaking vulnerable road users exercise

Objective: To help the Associate maintain a safe passing distance and anticipate unpredictable behaviour.
Suggested location: Semi-rural road with cyclists, horse riders, or joggers.

Instructions:
1. Ask your Associate to approach a vulnerable road user at a reduced speed, with a wide safety margin
2. Discuss whether to hold position or continue (depending on if there is oncoming traffic or no safe space)
3. Ask your Associate to tell you what clearance should be given (at least 1.5m; and 2+ m for horses)
4. Ask your Associate to tell you why horses should be overtaken slowly and given at least 2 m of room
5. While using the system, tell your Associate they can return to the correct lane gently, maintaining a low-noise footprint

This exercise focuses on:
- Spatial awareness
- Empathy for more vulnerable road users
- Smooth throttle and noise control

Overtaking a large commercial vehicle exercise

Objective: To improve your Associate's visibility planning and overtaking strategy.
Suggested location: A-roads or dual carriageways with lorries or buses.

Instructions:
1. Ask your Associate to follow a vehicle at a safe distance, and whether they can see the vehicle's mirrors and road ahead
2. Ask them how much space and time they need to pass the vehicle safely
3. Discuss what a suitable straight stretch would look like
4. Advise them to build up speed and overtake decisively
5. Instruct that they do not return to their lane until they can see both headlights in their mirror

This exercise focuses on:
- The use of engine torque and correct gear
- Mirror discipline
- Forward vision over long overtakes

Coaching tips for overtaking

- ✓ Highlight the importance of planning overtakes strategically
- ✓ Discuss considering an escape plan
- ✓ Ask the Associate to share their understanding of vulnerable road users and their needs
- ✓ Encourage reflection on overtakes – will the Associate remember these as smart moves or risky ones?

Common errors: overtaking

1 Inadequate observation
- Fails to check far enough ahead for bends, dips, or hidden junctions
- Does not spot oncoming vehicles early enough, especially when moving out
- Over-relies on the vehicle in front's actions instead of independent observation

Coach with: 'What are you overtaking into?'

2 Poor use of mirrors and blind spots
- Does not check mirrors immediately before the manoeuvre
- Ignores the nearside mirror when returning to lane
- Fails to spot another vehicle already overtaking (especially other motorcycles)

Coach with: 'Who might be planning the same thing as you?'

3 Misjudging speed and distance
- Underestimates the speed of oncoming traffic
- Starts the overtake too late, with insufficient acceleration space
- Returns to lane too close in front of the overtaken vehicle

Coach with: 'Did you leave enough room before, during and after?'

4 Hesitation after committing
- Moves out, then fails to commit when it is safe to go
- Slows down mid-overtake, leading to extended exposure in the danger zone

Coach with: 'Once you go, are you decisive and in control?'

5 Wrong gear selection
- Attempts to overtake in too high a gear, creating a sluggish response
- Over-revs or wheelspins due to selecting too low a gear
- Does not change down before the manoeuvre begins
    - Coach with: 'Is your motorcycle in the right gear to deliver the pull you need?'

6 Insufficient clearance
- Passes too close to the overtaken vehicle or especially vulnerable road users
- Cuts back in too early without confirming a safe gap
- Does not compensate for vehicle width or wobble (e.g. high winds)

Coach with: 'How much space would you want if you were being overtaken?'

7 Overtaking near hazards
- Ignores solid white lines, pedestrian crossings, or hidden junctions
- Overtakes near bends, brows, or in poor weather
- Fails to spot road signs or markings that prohibit overtaking

Coach with: 'What does the road environment tell you about risk?'

8 Overconfidence from previous success
- Is tempted to repeat a previous overtake too quickly
- Does not recheck conditions on multi-vehicle overtakes (e.g. one is safe, but the next is not)
- Misjudges their vehicle's capabilities or road conditions

Coach with: 'What's changed since your last overtake?'

9 Emotional or impatient riding
- Lets frustration build behind slow vehicles
- Feels pressured by tailgaters or aggressive riders
- Overtakes to 'make a point' rather than for genuine progress

Coach with: 'Are you overtaking because you should or because you feel like it?'

10 Lack of reflection after the manoeuvre
- Does not analyse whether the overtake actually improved progress or safety
- Fails to adjust following distance or position after the manoeuvre
- Does not learn from marginal or poorly timed overtakes

Coach with: 'What would you do differently next time?'

7 Motorways and dual carriageways: hints and tips

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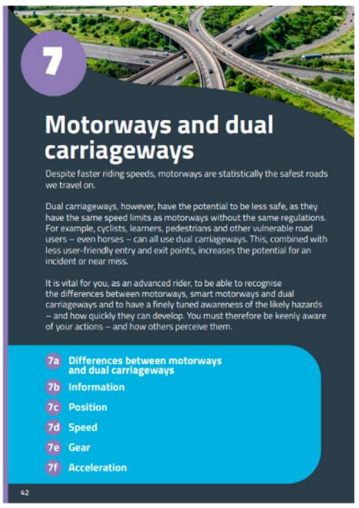

Observer aims

To provide the Associate with the necessary knowledge, understanding, skill and attitude to enter, use and exit a motorway or dual carriageway safely

Objectives for the Associate

1. Compare the differences between motorways and dual carriageways
2. Discuss positioning for safety
3. Recognise the difference on a smart or managed motorway
4. Demonstrate or discuss safe entry and exit of a motorway

Explain

The differences in lane descriptions
The lanes on a motorway are normally 15 ft wide compared to dual carriageways which have lanes of 12 ft.

The differences in characteristics
Motorways are set out to improve safety and have restrictions on vehicles using them. There are no 90-degree junctions or cross-flow traffic.

The rules for using the hard shoulder in an emergency
It is best to try to stop near an SOS call box, park the machine, dismount via the nearside, and move to the other side of Armco.

The main differences between a motorway and a dual carriageway
Motorways do not have roundabouts, T-junctions or exits with short or no slip roads. There are no sharp bends. Certain vulnerable road users are prohibited. When on a motorway or dual carriageway, how can you anticipate other road users' intentions?

How to identify slip roads, parking and service areas
Slow vehicles in lane 1 and 2, gradients, or clusters of traffic congestion may cause lane displacement.

Identifying others' non-verbal communication of others
Telltale signs of movement before a signal can be identified through a decrease in following distances, wheel-to-white-line distance altering, and where other riders or drivers are looking.

Positioning for safety
The nearside lane (lane 1) is the default position in accordance with the Highway Code, unless making an overtake. Stopping distance and thinking distance are both important factors when riding at speed on motorways and dual carriageways. A three-second gap will allow traffic to move in and out of the space in front and avoid repeated speed alterations. This approach is also less stressful than constantly fighting for space.

Leaving a gap
A large gap before the vehicle in front on a motorway is essential for safe and stress-free riding. At high speeds, having more space gives the rider crucial time to react to sudden braking or unexpected hazards without needing to brake harshly. It ensures enough stopping distance – especially important as speeds increase, and in poor weather, where stopping distances can double or more. A greater following distance also improves visibility, to see traffic patterns and potential risks further ahead.

Identify: motorway or dual carriageway?

- Ask the Associate to consider if their motorcycle is allowed in all lanes
- Advise them to plan an exit early and slow down appropriately
- Highlight the need on smart motorways to follow the information gantry signs

Does your Associate know?
At 70 mph leaving a two-second gap gives a gap of 200 ft (61 m)
Leaving a three-second gap gives a gap of 300 ft (91 m)
Overall stopping distance at 70 mph is 315 ft (96 m)

Entering a motorway or dual carriageway

When entering a motorway or dual carriageway the Associate should obtain early information: 'On-slips' are often elevated. Looking to the sides during vision scans will assist with judgement and extending vision. Matching the vehicle speed to that of the vehicles on the carriageway makes for an easier transition and where gaps are limited it allows for safer merging.

Overtaking

Discuss how overtaking on a motorway is easier than on a single carriageway. When your Associate needs to overtake, they should move across the lanes gradually as safe opportunities become available (mirror/shoulder check before each lane change).
After an overtake is completed, they should move back to the nearside lane when safe. Proactive OAP will help them make early decisions about lane changes.

Exiting a motorway

The Associate must leave the carriageway without causing other road users to alter course or speed; therefore, exits should be planned early and in plenty of time.

Motorway exits usually have markers at 1 mile; this is where the Associate should be extending vision out and scanning back looking for spaces in the traffic.

At the ½-mile marker they should be identifying and choosing a suitable gap, often referred to as a 'banker gap' (a space in the traffic in which they can gain access to the exit slip). In any event, they should aim to be in a position to safely exit by the 300 marker.

The Associate should reduce speed on the slip road and pay attention to any new information signs and speed limits. The motorcycle may feel slower than it is going; therefore, draw this to your Associate's attention.

Smart motorways

All-lane-running (ALR) smart motorways remain a debated issue among UK riders and drivers. Although they currently account for around 13% of England's motorway network, ongoing concerns about their design and safety have led the government to cancel future smart motorway projects.

Despite this decision, many miles of smart motorway remain in operation across the country. It is therefore essential that riders understand how to use them safely and effectively.

Explain

- The difference between normal motorways and all-lane-running (smart) motorways
- Why they have Active Traffic Management Systems (ATMS) and/or variable speed limits
- The presence of electronic signs on gantries above a smart motorway, which display the maximum speed limit allowed and what lanes can be used

Common errors: motorways and dual carriageways

1 Inadequate observation and planning ahead
- Does not scan far enough ahead (500+ m)
- Fails to observe lane closures, signage, or variable speed limits in time
- Does not anticipate traffic patterns (merging traffic, bunching, HGVs)

Coach with: 'What's happening half a mile ahead that will affect your decisions now?'

2 Passive or indecisive lane discipline
- Remains in middle or overtaking lane without reason ('lane hogging')
- Changes lanes too late when exits or hazards are well signposted
- Drifts between lanes or shows poor lane centring

Coach with: 'Are you in the most appropriate lane for your speed, safety and journey?'

3 Poor use of mirrors and blind-spot checks
- Fails to check mirrors before lane changes
- Relies solely on mirrors without blind-spot checks
- Misses fast-approaching vehicles in overtaking lane

Coach with: 'Did you fully understand what was happening around you before that move?'

4 Ineffective or late lane changes
- Cuts across lanes abruptly
- Leaves it too late to move across for junctions or exits
- Signals without planning the move or fails to signal at all

Coach with: 'Did your positioning and signalling give others time to understand your plan?'

5 Poor following distance
- Tailgates, especially in heavy traffic or poor visibility
- Does not adapt following distance for weather, spray, or braking zones
- Uses fixed distances (e.g. 'two seconds') without adapting to conditions

Coach with: 'If the vehicle ahead suddenly braked – what would happen next?'

6 Inappropriate speed and gear selection
- Rides too slowly in high-speed lanes without cause
- Remains in a high gear which removes responsiveness
- Speeds through variable zones or fails to adapt for roadworks

Coach with: 'Is your speed and gear giving you the right control, safety and flexibility?'

7 Poor joining or leaving technique
- Hesitates or stops at the end of slip roads
- Joins too slowly, forcing others to brake
- Leaves too late and cuts across lanes

Coach with: 'Did you blend into traffic at a safe speed, with a clear plan?'

8 Not managing surrounding traffic well
- Matches speed with adjacent vehicles, reducing escape routes
- Allows large vehicles to box them in or travels in blind spots
- Does not recognise developing risks (e.g. two HGVs overtaking)

Coach with: 'Where is your escape route right now?'

9 Underestimating effects of weather and visibility
- Does not increase following distance in rain, fog, spray or glare
- Rides at inappropriate speeds for reduced grip or sightlines
- Fails to use lights effectively when visibility drops

Coach with: 'Are you giving yourself and others enough time and space in these conditions?'

10 Failing to reflect and adapt riding style
- Rides the same way on all fast roads, regardless of layout or conditions
- Does not learn from lane choice errors or timing mistakes
- Repeats behaviours (e.g. late moves, poor spacing) without review

Coach with: 'What did that section of riding teach you about your habits?'

8 Low-speed riding: hints and tips

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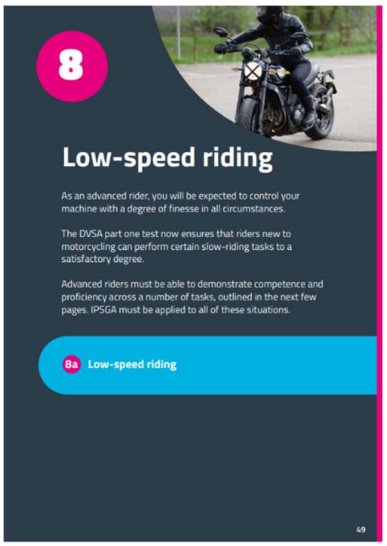

Observer aims

To provide the Associate with the necessary knowledge, understanding, skill and attitude to be able to ride slowly without losing their balance to carry out different manoeuvres and to be able to filter safely

Objectives for the Associate

1. Discuss how to choose what type of manoeuvre to make
2. Demonstrate how to carry out effective observations
3. Maintain safety during the manoeuvre
4. Discuss how and when to filter in traffic

Some additional pointers:

When it comes to turning a motorcycle around, competence in all areas is preferable to excellence in one.

Explain

The dynamics of a motorcycle when turning

When a motorcycle turns, it doesn't steer like a car – it leans. At speeds above walking pace, the rider uses counter steering: to turn left, they gently push the left handlebar, which causes the bike to lean left and begin the turn. The lean angle balances gravity and the forces of the turn, with grip maintained through the tyres' curved profile. Smooth throttle control helps keep the bike stable mid-turn, while looking through the corner and using good body position improves balance and control. In short, turning is a blend of lean, balance, throttle, and vision working together.

What filtering is and how it should be done

Filtering is the practice of riding a motorcycle between lanes of slow-moving or stationary traffic, typically seen in congestion or at junctions. It allows riders to make progress through traffic where space permits, helping reduce journey times and easing overall congestion.

Filtering is legal in the UK when done safely and responsibly, but it requires good observation, speed control, and awareness of surrounding vehicles. Riders must judge gaps carefully, anticipate other road users' movements, and always be prepared to stop or adjust position if conditions change.

Being in total control

- Becoming too focused on the manoeuvre will distract the Associate from safe all-around observations
- The Associate should try not to inconvenience others when performing any manoeuvre
- The Associate must put first staying safe, and be prepared to delay or abandon the manoeuvre for safety

What type of manoeuvre is best?

The Associate needs to be able to decide which type of manoeuvre is safest for the current road conditions. Available space may well dictate what manoeuvre is carried out.

If turning round in a narrow street, the mouth of a junction or driveway could be used to help. As an advanced rider, the Associate needs to be competent in turning their machine around.

Demonstrating effective observations

The Associate needs to demonstrate their ability to carry out all-round observations before and during a manoeuvre, and be able to show what potential danger is being prioritised.

If a danger is identified, the Associate will need to demonstrate how their response is proportionate to the danger and how they maintain safety.

Demonstrating good observations and being able to make decisions that minimise the effect on other road users may mean completing the manoeuvre is the safest option.

Maintaining appropriate speed and control of the manoeuvre

The Associate needs to demonstrate that they have the ability to control the machine accurately at slow speeds, riding the machine slow enough to take in all information and be able to react.

Demonstrating full control of the throttle, brakes and clutch together with balance is key to carrying out any manoeuvre in a positive way.

Tips for filtering

Reading body language of other vehicles by looking for subtle cues that a vehicle might move across
A rider should focus on wheel direction and rider behaviour – these show more than indicators alone.

Staying in the eyeline of other riders
A rider should remember: a flash of a face in the mirror of the vehicle in front = they probably know the rider is there.
No face = the rider can assume the vehicle in front does not know they are there.

Knowing when not to filter
If a road is busy and congested but is still moving in a stop-start or slow-flow pattern with vehicles creeping forward leaving small and inconsistent gaps, it is likely better to blend in rather than slice through the traffic. Prompt your Associate to consider whether filtering would really aid progress, or if it would be better to remain in the flow for now.

Watching for the gap jumpers
These are the riders or drivers who change lane to get a tiny advantage, or vehicles that turn right across a queue.

Using engine sound wisely
Twin-cylinder bikes are often heard more easily than single or four-cylinders. Riders should learn how their bike sounds in traffic.

Example coaching questions: slow riding during car park exercises, figure of eights or tight manoeuvres

1. **What inputs are you using to stay balanced at low speeds?**
   Ask this when a rider looks unstable or 'wobbly' – it encourages thinking about body position, throttle, clutch and rear brake.

2. **How do you use your clutch and rear brake together when riding slowly?**
   Ask this during the rider's practise or when you demonstrate feedback – it gets them to reflect on fine motor skills and coordination.

3. **What was your head and eye position during that U-turn?**
   This prompt can help correct a rider with head-down focus, which leads to target fixation and loss of balance.

4. **How does your body position affect the bike at walking pace?**
   This is useful to ask if the rider is stiff or over-controlling the handlebars.

5. **What helped you maintain a smooth, controlled line just now?**
   Provide positive reinforcement through this question – after a good manoeuvre, it will help the rider identify what went well so they can repeat it.

It is also useful to provide a debrief after the exercise, after a wobble/stall to promote self-awareness, if they panic in a low-speed scenario, or if they overuse the front brake.

Example coaching questions: filtering

Encourage safe, legal, and confident decision-making while filtering through traffic.

1. **What cues helped you decide whether it was safe to filter?**
   This encourages a rider to assess gap size, traffic behaviour, junctions, and pedestrian risk.

2. **What visibility did you have ahead and to the sides when you started filtering?**
   This promotes awareness of blind spots, door zones, and side-road hazards.

3. **What was your escape plan if a vehicle moved across your path?**
   Ask this when a rider filters aggressively – this question fosters risk planning and hazard anticipation.

4. **How did your position and speed change when the traffic started to move again?**
   Ask this to prompt the rider to review dynamic changes and reinforce the need to adjust when stationary traffic becomes moving traffic.

5. **What signs told you filtering was no longer safe or appropriate?**
   This helps the rider think critically about when to abandon filtering – like narrow gaps, unclear visibility, or junction proximity.

Common errors for low-speed riding and filtering

1 Wobbling or inconsistent balance
- Shows poor clutch control, looks down, lack of rear brake use

Coach with: 'Where were you looking during that manoeuvre?'

Explain: Head and eyes should lead the turn – the rider should look where they want to go, not at the front wheel

2 Overuse of front brake at low speed
- Shows panic or relies on ingrained habit from higher speeds

Coach with: 'What's the effect of using the front brake at walking pace?'

Explain: The front brake can destabilise the bike at low speed. Encourage light use of rear brake only to stabilise

3 Poor clutch control (jerky or stalling)
- Releases the clutch too fast or does not use the throttle correctly

Coach with: 'How does your clutch feel when you release it slowly – where is the bite point?'

Explain: How gentle throttle and fine clutch control create smooth motion

4 Oversteering or wide turns
- Insufficient head turn, poor planning, or the speed is too fast for the turn

Coach with: 'Where did your eyes and bars go during that turn?'

Explain: The rider must use positive steering and body lean; their head turn must lead before the bike follows

5 Not using rear brake to stabilise
- Relies solely on clutch and throttle

Coach with: 'What happens to the bike when you feather the rear brake?'
Explain: Light rear brake adds drag and stability, especially in tight spaces

6 Filtering too fast for the conditions
- Misjudges the space available or the speed of surrounding traffic

Coach with: 'How does your speed compare to the vehicles you're passing?'

Explain: The ideal filtering speed is no more than 10–15 mph faster than surrounding traffic – any faster and the risks increase sharply

7 Poor observation ahead and to the sides
- Demonstrates tunnel vision or excessive focus on the gap directly in front

Coach with: 'What clues can you spot to predict what vehicles around you might do?'

Explain: The rider must watch other vehicles' wheels, their own mirrors, indicators, pedestrians, and gaps near side roads

8 Filtering near junctions or pedestrian crossings
- Does not recognise high-risk environments

Coach with: 'What makes junctions and crossings riskier when filtering?'

Explain: Traffic can turn unexpectedly; pedestrians can step out – visibility is often reduced

9 Not reading vehicle body language
- Shows inexperience with subtle movement cues

Coach with: 'What signs did you notice that the car might change lanes or pull out?'

Explain: Signs of imminent change are wheels twitching, slight movement in the lane, and riders/drivers glancing in mirrors.

10 Not planning an escape route
- Focuses only on the gap ahead without a 'what if' plan

Coach with: 'If the car ahead suddenly moved into your path, what would you do?'