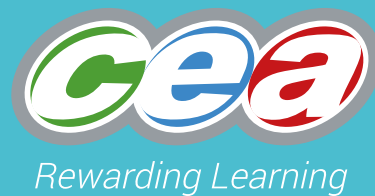


GCSE



Revised GCSE
Teacher Guidance
**Motor Vehicle and
Road User Studies**

Unit 3: Teaching the Practical

For first teaching from September 2017



Foreword

The following information has been prepared to assist teachers in embarking on teaching this subject for the first time. Further information may be requested by contacting the Subject Officer for CCEA GCSE MVRUS.

Preparation

Before beginning to teach the Practical Riding Activity (Unit 3) of the GCSE MVRUS specification, written permission should be requested from the pupil's parent/guardian. This advice also applies to the teaching of Unit 2 (Controlled Assessment).

It is recommended that when this permission is requested, a check is also made as to whether the pupil can ride a bicycle. This is a basic skill essential for progression to riding a moped.

Any risk assessment/s required by the individual school's policy should also be completed.

Potential problems related to the teaching of this subject include the "know-all motorbiker"; assume that the whole class knows nothing. Pupils must be taught to listen ONLY to the teacher's instructions, not to their classmates. An agreement regarding this should be reached before anyone is allowed to ride the moped; it will bear repeating regularly.

The Moped and the Helmet

The moped should be maintained in a roadworthy condition. Safe storage should be found for the machine. The bike should always be wheeled to and from storage.

- Keys should be stored separately from the bike;
- When in use, the teacher should always keep control of the keys;
- Fuel should be stored safely and safe arrangements about fuelling should be made;
- Any accidental damage should be checked by the teacher before the next pupil uses the bike; accidental damage should be repaired as soon as possible; and
- Should any interruption to a practical lesson occur, the moped should be stopped and secured immediately, and the keys returned to the teacher, until the interruption is dealt with.



When introducing the machine, the following points should be made: the machine used may be referred to as a "moped" or "scooter"; those used for this course, and licensed for use by 16 year old riders, must have an engine of less than 50cc and must be capable of no more than 30mph.

Helmets can be of various styles/design but must conform to BS6658:1985.

It is imperative that teachers and pupils always wear a helmet when astride the machine and that helmets are seen to be fastened.

(Failure to fasten the helmet can cause the "Safety Awareness" marks at the end of the Practical Riding Activity examination to be significantly reduced.)

Pupils should be informed about care of helmets:

- Helmets should not be placed upside down on any surface;
- Helmets should not be placed where they can be knocked over or kicked;
- Helmets should not be used if they have been, or are suspected of having been, damaged; and
- Helmets should not be borrowed/lent as their previous treatment cannot be known.

It is recommended that pupils should still be advised to wear strong shoes, rather than lightweight ones, for safety and comfort.

The teacher should also recommend the wearing of gloves. It is always hoped that no pupil will suffer a spill from the bike, but in the unlikely event of a fall (even at low speed) the skinning of hands is best avoided.

The wearing of shorts is much more common than was previously the case. Again, pupils should be told that this type of clothing is not allowed.

As stated before, the mode of dress suggested is not simply intended for during the teaching/learning of MV&RUS. It should become the standard for any cycling/motorcycling thereafter.

Introducing Pupils to the Moped - the Daily Check

The teacher could use the daily check as a way of familiarising pupils with the bike.

The check should always be carried out on a hard surface, on what would be the pavement, or alongside the kerb in the school's yard layout.

The person carrying out the check (pupil or teacher) should always be on the LEFT of the bike.

The check should involve:

- **Fuel** - a visual check made of fuel quantity to ensure there is sufficient fuel for the intended journey;
- **Tyres** - check pressure and condition of front and rear tyre;
- Take machine off the stand and check that the stand is fully retracted;
- **Brakes** - check action of each brake lever (separately) and check the cables for snagging and signs of wear;
- **Steering and Suspension** - check movement of steering is free. Check suspension front and rear;
- Return machine to stand.
- **Lights** - check operation of headlight, brake light and indicators; and
- **Horn** - check operation of horn.



Beginning to Ride the Moped without Power

Before attempting to ride the machine, under power or otherwise, each pupil should be given the opportunity to become familiar with the weight, balance and turning circle of the bike. This can be done by asking each, standing to the left, to wheel the machine clockwise, then anti-clockwise and finally in a Figure 8.



- In the first practical lesson, pupils should freewheel the machine down a gentle slope. This serves to further familiarise the pupil with the weight and balance of the moped and with **braking** and **stopping**.
- The moped has suspension which absorbs the forward energy when brakes are applied and so the front brake should be applied first, without fear of an “over the handlebars” experience. This is calculated to, hopefully, allay the fears and hesitation of the timorous learner.
- The rear brake should then be applied, with the front brake still on. This will achieve the best result for controlled stopping.
- As the machine stops, the pupil should be encouraged to lean slightly to the left and to put the **LEFT** foot down.
- (It should be emphasised to pupils that the right foot should not touch the ground at any time while mounted on the moped. On wet, slippery or frosty surfaces, a right foot put down could result in a slip and fall out into passing or oncoming traffic; a left foot, similarly planted, may result in a fall on to a footpath or into the side of the road, with less serious consequences. It should be added that, just as teachers are advised to check that pupils can ride a pedal cycle, they are also reminded to check that pupils know right from left.)
- Once the teacher is confident that each pupil can balance satisfactorily, the next exercise can begin.

Learning to Move Forward Under Power

- It is good practice that when first riding the moped with power, students should drive in a straight line, directly towards the teacher, who is standing in front of the pupil. They should not attempt any other manoeuvres at this stage. This means that if necessary, and if the student gets into difficulty, the teacher can reach out and place both hands on the brakes to stop the moped.
- The pupil should sit on the moped, engine running, left foot on the ground, brakes applied.
- The teacher should stand in front of the moped, preferably with one foot either side of the front wheel and demonstrate how to apply a little throttle.
 - This provides a perfect opportunity to point out that the throttle should not be wound to the fully open position; it also allows an explanation of “throttle” to the uninitiated. (They might understand “accelerator”.)
- The teacher should back away 2-3 metres and beckon the pupil to release the brakes, apply a little throttle and to move forward, lifting the left foot as the machine moves. The pupil should ride directly towards the teacher.
- As the moped reaches the teacher, the pupil applies the brakes and stops, left foot down.

- This exercise should be repeated, with the teacher increasing their distance to 4-5 metres. The teacher continues to repeat the exercise with the distance being increased each time.
- When the end of the practice space is reached the student dismounts the moped and wheels it to face in the opposite direction and waits for the teacher before remounting the bike.
- The teacher then moves to the furthest distance in the yard, asks the student to remount and ride towards them again. On the run back the pupil should open and close the throttle and apply the brakes, and experience the different effects.
- This process should be repeated with each student before any manoeuvre is introduced.

Manoeuvres to Improve Balance, Throttle and Brake Control

- A few sessions could now be devoted to activities and manoeuvres calculated to improve balance, throttle and brake control. The more time available for this kind of familiarisation, the better.

- Exercises to improve balance and control are many and varied but could include:

- slalom or zig-zag activities, where balance and slow control are improved, using cones and figure 8 shapes as appropriate.

- A “slow ride,” with a competitive edge included, where the aim is to ride between two points ten or more metres apart, in the longest time. A rectangular box, within four cones, could be used. The width of the course should be limited, so that each pupil’s zig- zag movement is curtailed, with balance and brake control being tested.

- Pupils engaged in this activity quickly learn that in, slow manoeuvres, sharp use of the front brake has consequences!



Teaching the Correct Braking Technique

- After several familiarisation sessions, the teacher will have had the opportunity to identify those pupils who are most comfortable on the moped.
- Using one or more these pupils, and choosing a dry day, the students should have a demonstration of the benefits of correct braking technique, intended to bring the moped to a controlled stop.

- A cone should be placed about halfway along the space being used. The chosen pupil is asked to ride the bike at approximately 15mph and to apply the **REAR** brake only, when the cone is reached. A cone is placed to mark where the bike stops.

- The exercise is repeated, this time with the pupil applying the **FRONT** brake **ONLY**. Again, a cone marks the stopping point.

- Finally, the pupil rides the bike at 15mph as before and, on reaching the first cone, applies the



brakes, (**FRONT** first, and held on; then, immediately, **REAR**.) Another cone is used to mark this stopping point, which should be closest to the starting point.

- The teacher could, of course, perform this demonstration.

Preparing for Teaching the Practical Riding Activity

The layout for the Practical Riding Activity depends mainly on the space available within each school. This layout should however, if at all possible, allow for a continuous series of manoeuvres. When deciding on the layout for the practical, teachers should try to leave as much space (and time) as possible between one manoeuvre and the next. This will hopefully prevent pupils rushing and becoming flustered and confused, not giving their best.

Before beginning teaching for the Practical Riding Activity the students should be familiar with the key terms.

- **“Rear Observation”** This refers to a turn of the body, **ALWAYS** to the **RIGHT**, of 180 degrees. It allows the rider to observe all that is happening behind. It should be carried out before any manoeuvre/ change of direction is intended.
- **“Lifesaver” (or “lifesaver look”)** This refers to a turn to the right, **OR** left, of 90 degrees, immediately before a change of direction, allowing the rider a last-second check to ensure that nothing has changed since the Rear Observation was performed and that no dangerous circumstance has developed. That a Lifesaver has been performed should be obvious to an observer standing behind the rider; the full side profile of the rider will be visible. The direction of each Lifesaver (left or right) is determined by the intended change in direction of travel.

Rear Observations and Lifesavers are required and marked at various points during the Practical Riding Activity, but pupils should be taught that it is good practice to do these after **EVERY** time a manoeuvre/change of direction is intended and **NOT ONLY** when required for the marking of the Practical Test.

The habit of checking behind should become second nature to pupils so that it is done before every manoeuvre performed in the school yard or in real life road use.

- **Arm signals**

Left or right arm signals should be held out at a right angle from the body, for at least three seconds, so that the rider’s intention is noted by other road users. Pupils could be reminded regularly, during teaching, to be always alert for the inattentive motorist.

It should be pointed out to pupils that, until they are completely comfortable on and well-used to the moped, there will be a tendency to grip the handlebars tightly. When letting go to perform an arm signal, the hand still holding on will possibly pull in the opposite direction. Pupils should be alert to this potential problem also.

The Practical Riding Examination

- Pupils should be given a personal copy of the Candidate Record Sheet, which should be read through and explained.
- The various elements detailed on the Candidate Record Sheet may be taught, and ultimately examined, in any order; additional manoeuvres may be included in order to suit the road layout in each school. Such additional manoeuvres are not marked as part of the actual examination.

- Rear Observations and Lifesavers are to be marked as detailed on the CRS but, pupils are encouraged to perform these with each manoeuvre and change of direction. Marks are not lost for extra checks performed; nor are these extra checks marked.

Starting the Machine

- This should be done with the bike on the stand and the rider standing beside the machine, to the **LEFT** (unless required otherwise by the make and model being used).
- The rider should have **BOTH** hands on the handlebars.
- The **FRONT** brake should be applied. (Again, unless otherwise necessitated by make and model.) Applying of the front brake should prevent mishap in the event of over-enthusiasm if a kick-start is required.
- Activate the engine. Once this is done the throttle should be closed, the **REAR** brake should be applied and the **FRONT** brake released. (The bike will not move off the stand while the front brake is held on.)



Moving Off from the Kerb

- The machine should be moved off the stand, with the REAR brake still applied.
- The rider should check that the stand is clear of the ground and fully retracted. A stand which is not fully retracted can cause an accident if it digs in when the rider leans the bike to accomplish a turn.
- Sit on the machine. The rear brake may now be released. The **LEFT** foot should be on the ground; the **RIGHT** foot should be on the pedal/rest, where it should remain until the rider wishes to dismount.
- The rider should perform:
 - a Rear Observation (always to the **RIGHT**),
 - **RIGHT** arm signal (at least three seconds),
 - Lifesaver over the **RIGHT** shoulder and move off from the kerb.

The rider should gradually steer slightly out from the kerb, to assume road position and to avoid any camber or kerbside 'litter'.

Right Turn at a Stop Sign

As the rider approaches a right turn, preparation must be made to alter road position in anticipation of the manoeuvre:

- riding slightly out from the kerb, as before, the rider should perform a Rear Observation;
- make a Right Arm Signal;
- do a Lifesaver over the **RIGHT** shoulder;
- move to the centre of the road (riding just to the **LEFT** of the centre line); and



- stop at the stop line; Left foot down. Look Right, Left, Right again. (If crossing a road to complete a **RIGHT** turn, the first hazard to be encountered will be traffic travelling from the rider's right; the next potential hazard will be traffic coming from the left. The second look to the right is akin to a lifesaver.)

Rear Observation; Right Arm Signal; Life Saver over Right Shoulder.

While completing the right turn, the rider should continue to look right and left as well, of course, as straight ahead. The right turn should be completed without cutting the corner.

Continuous Left Turn

As the rider approaches a left turn, care should be taken not to position the machine too close to the left kerb.

In preparation for the turn the pupil should perform:

- A Rear Observation and make a Left arm signal
(Again, care should be taken, when letting go with the left hand, that the moped does not veer to the right.); and
- A Left Lifesaver, looking to the left **AND** into the road being entered.

If the rider does the initial Left Lifesaver too early, a second Left Lifesaver should be done just before the turn begins. It is important that the rider looks into the road on the left at this point, watching for pedestrians or other hazards. Too often, pupils make this Lifesaver look while still five or more metres from the turn.

They should be encouraged to take a second left look immediately before the turn. (On a road, a moped rider will not be able to see into the turn while still five metres from it.)

- The turn should be completed, without swinging out.

Passing a Stationary Vehicle

Two (or four) cones should be placed on the road to represent the parked vehicle.

As the pupil approaches the "vehicle," he/she should allow adequate time and a suitable distance before reaching the cone/s representing the rear of the "vehicle" to move out and pass.

The pupil should carry out:

- Rear Observation, Right Arm Signal and Right Lifesaver and should then move out, gradually, in advance of reaching the "parked car."

While passing the vehicle, a road position should be adopted which allows for the possibility of a door opening or the car moving off without due care and attention.

- **AFTER** (not while) passing the vehicle, a Left Lifesaver should be completed. This should include looking down, in front of the vehicle just passed. By doing this, the rider will notice any obstacle previously obscured by the parked vehicle (child, dog etc). The Left LifeSaver, once completed, can be followed by a gradual return to the normal road position, without cutting in.

Stopping and Dismounting

This can be performed at any suitable point during the Practical Test but is perhaps best left to be the final manoeuvre in the Practical Examination. It is expected that each test will be carried

out as a continuous exercise, but schools are free to decide their own most suitable sequence and layout.

When preparing to stop and dismount, the rider should:

- Perform a Rear Observation.
- A Slowing Down signal should then be given.



This should be performed using the **RIGHT** arm, as per The Highway Code, and should consist of at least three upward and downward movements of the arm (straight out from the shoulder). These movements should not be rushed; the aim is to alert a following motorist to the rider's intention and so the signal should last long enough to be seen by those behind.

- The rider should now pull in alongside the kerb, preparing to put the left foot to the ground when stopped.

As mentioned before, beginners will benefit from a slight lean to the left.

- With the moped halted, and the left foot on the ground, the engine should be stopped **BEFORE** dismounting.
- Once the engine is stopped, the rider should dismount on the **LEFT** and the moped should then be returned to the stand.

Controlled Braking

For the Practical Riding Test four cones are set up to form a rectangle 3 metres wide by 5 metres long.

- The student is required to approach at a speed of approximately 15mph.
- The moped should be brought to a controlled stop within the rectangle.
- The front brake should be applied first (as detailed earlier). It should not be applied fiercely.
- The front brake is held on, and the rear brake is applied, again not fiercely or snatched.

Applying the brakes in this manner will avoid locking of wheels, skidding or deviating from a straight course. The left foot should be placed on the ground when the moped comes to a stop within the rectangle.

Skill Test and Figure 8

Teachers are advised to consult "CCEA GCSE Specimen Assessment Materials for MV&RUS" to see the layout and dimensions for these exercises. It is important, in particular, to note the "direction of travel" shown.

The 9 cones used in the Skill Test are all placed 3 metres apart. The space used for the Figure 8 should be 11 metres long by 4 metres wide, with the corners marked by 4 cones.

As stated earlier, when teaching of the Practical Riding Activity begins, time should be devoted to familiarisation with the moped. Exercises requiring balance and brake and throttle control should be introduced, and regularly refreshed.

As the time of the Practical Test approaches, the teacher will be aware of how much extra

practice each pupil might require.

The following may assist:

- Pupils should be advised to avoid applying the front brake while carrying out these exercises; a toss from the moped may ensue!
- It is possible to apply the rear brake gently at times during these manoeuvres. The technique sometimes referred to as “dabbing the brake” can be used.
- The rear brake should NOT be applied too firmly or for the duration of each exercise, as this will contribute to wearing out of the automatic clutch mechanism.

Safety Awareness and Quality of Control

In the examining of the Practical Riding Activity, a final mark out of 10 is awarded for Safety Awareness and Quality of Control. The following banding is used:

Band 1 marks (1-3): this is awarded when the pupil displays a basic level of awareness and machine control.

Band 2 marks (4-7): this is where a good standard is displayed.

Band 3 marks (8-10): this is awarded when the pupil displays an excellent awareness of safety and excellent machine control.

The teaching of MV&RUS is varied and the teaching of each element (Theory, Traffic Surveys and Moped Riding) is all the more enjoyable because of this variety.

Safe and confident moped riding will help achieve good marks in GCSE MVRUS but, much more importantly, it will contribute to safe and confident road use (whether as pedestrian, cyclist, motorcyclist, or driver).



