

Bike safety check



1. Frame fit

- The rider should be able to straddle the bike with both feet flat on the ground.
- On mountain bikes and BMX there should be at least 5-10 centimetres clearance between the top tube of the frame (or where a top tube would be) and the rider's crotch.
- On road bikes, the clearance should be about 3 centimetres.
- On all bikes the distance between the handlebar and the seat should be the length of the rider's forearm.

2. Seat

- The seat should be adjusted so that the rider can at least touch the ground with the left toes when seated.
- To check for correct seat adjustment the rider should:
 - sit on the seat and hold the handlebars (another person can assist with balance if necessary)
 - position one pedal at the bottom of the pedal arc in line with the seat tube
 - then place the heel of the appropriate leg on to the pedal.
- The leg should be comfortably straight – not locked at the knee. Adjust the seat height to achieve this setting for comfort and efficiency.
- Some children may be anxious if they are not able to touch the ground easily without leaning the bike to one side. While skills are developing with school ground activities, the seat may be lowered to a point where the student

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can comfortably put both feet on the ground. However, when longer rides are being undertaken the seat should be adjusted as described above.

- The seat should be in good condition and have no damage, such as cracks and broken springs.
- Grip the seat and check that it is stable, without movement from side to side.
- The seat should be adjusted to sit flat and be straight in line with the top tube.

3. Handlebar

- The handlebar ends should be covered and the handgrips secure.
- Check the handlebar for correct alignment. Straddle the front wheel and grip it between your knees. Try to wiggle the handlebar from side to side, and forward and back.
- Ask the rider to sit on the bike (supported by others if necessary) or ride it in a small circle. Check that the rider can reach the handlebar grips easily with their arms slightly bent and that their knees do not hit the handlebar.

4. Warning device

- Check that there is a bell or horn in working order that can be clearly heard.

5. Headset

- Hold the join between the top headset and the frame with the forefinger and thumb of one hand.
- Try to wiggle the handlebar forward and back with your other hand.
- No movement should be felt between the headset and the frame.

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Handbrakes

- Squeeze the front brake lever and try to wheel the bicycle forward. The front wheel should not turn.
- Squeeze the back brake lever and try to wheel the bicycle forward. The back wheel should not turn.
- When brakes are applied, there should be a gap between the brake levers and the handlebar.



6. Brakes

- All bikes must have at least one effective brake.
- For *Bike Ed* programs it is recommended that students ride bicycles which have a hand brake on each wheel or have working front and rear brakes.



Foot brakes

- Turn one of the cranks until it points backwards.
- Press down on the pedal with one hand and try to push the bike forward with your other hand.
- The back wheel should not turn.

7. Wheels

- Check that the wheel nuts are not loose and the spokes are not loose or broken.
- Lift the front of the bicycle and spin the front wheel. It should spin freely without stopping suddenly or scraping or hitting anything.
- Lift the back wheel and repeat
- Check the rim for damage such as splits, bulges or bends.



8. Tyres

- Tuck your fingers under the rim of the wheel and squeeze the tyre firmly with your thumbs. If the tyre is pumped up tight enough it will not depress.
- Tyres should be inflated to the manufacturers' recommended pressure, which is embossed on the wall of the tyre. Inspect the tyres for worn spots or bulges by turning the wheels slowly.
- The valves should be capped and pointing straight to the hub.



9. Pedals

- Check that both pedals are working, in good condition and will spin a few times when tapped sharply with your fingers.



10. Chain

- Lift the bicycle by the seat so that the back wheel comes off the ground.
- Hold one pedal and move it forward so that the back wheel turns. Now move the pedal backwards.
- Check that the chain works smoothly without sticking or jumping and is not too loose, dry or rusty and is free of excess grease.



11. Lights and reflectors

- It is unlikely that many students' bikes will be fitted with lights. Riding at night, in hazardous weather or any time where there is reduced visibility is not recommended.

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- It is a legal requirement that a rider of a bicycle must not ride at night, or in hazardous weather conditions causing reduced visibility unless the bicycle or the rider displays:
 - a flashing or steady white light that is clearly visible for at least 200 metres from the front of the bicycle
 - a flashing or steady red light that is clearly visible for at least 200 metres from the rear of the bicycle
 - a red reflector that is clearly visible for at least 50 metres from the rear of the bicycle when light is projected onto it by a vehicle's headlight on low-beam.

12. Quick bike safety check

Explain that this is the safety check that will be done before each practical *Bike Ed* session and that if a bike fails, then the student will not be able to participate.

This time the check should show any problems that students have found, so make sure these have been noted on the *Student Sheet: Bike safety check*.



With students sitting on the seat of their bike, quickly check each bike as follows:

- Walk along the line and look for under-inflated tyres.
- Check that quick releases on front and rear wheels are tight and in the correct position.
- Check students can touch the ground with both feet.
- Check helmets are correctly fitted.
- Have the students as a group wheel their bikes forward a little and apply their front handbrake when you tell them to. Each bike should stop immediately.
- Have students wheel their bikes forward a little again and this time apply their rear brakes. The bikes should stop.
- Individually check any bike that does not appear to stop immediately.



Helmet and riding gear safety check

Depending on the number of instructors and assistants available, this activity can be conducted in small groups or students can work in pairs and carry out the check on each others helmets and riding gear.

Hand out the *Student Sheet: Helmet and riding gear safety check* to each student.

Divide the class into small groups or pairs and demonstrate the following checks. Have the students then carry out these checks and record the results on the *Student Sheet: Helmet and riding gear safety check*.

Note that for reasons of hygiene and consistency of fit, it is recommended that children have their own bicycle helmets. It is expected that in general, parents and care-givers supply the child's helmet.

Helmets can be cleaned with water and mild soap. Helmets may be seriously weakened by certain chemicals, including cleaning agents, adhesives, paints and solvents.

HELMET

1. Standard

- Students must wear an approved helmet that is certified to meet the Australian Standard AS/NZS 2063.
- Helmets bearing this symbol have passed tests for impact, retention and vision.
- For further details of standards for bicycle helmets visit the VicRoads website (www.vicroads.vic.gov.au) and follow the links to bicycles and to bicycle helmets.



2. Condition of the outer shell

- It should be complete, in good condition and not cracked or broken. If damaged, it should be replaced.

3. Condition of the inner shell

- The polystyrene foam liner should be complete and not cracked, broken or have pieces missing.
- If the foam liner can be depressed with a finger at any point, it is not firm enough to provide protection in a fall.

Helmet and riding gear safety check



4. Straps and fasteners

- Straps should be complete and not torn or frayed and fasten firmly and comfortably around the chin.
- All clips and buckles should fasten properly and not be broken or have pieces missing.
- If damaged, the helmet should be replaced.

5. Fit

A helmet which is the correct size for the rider should sit down firmly and comfortably on the head without moving from side to side or forwards or backwards. Long hair pony tails may need to be adjusted. Headbands, hairbands, caps and beanies should not be worn.



- To check for fit, place hands on top of the helmet and try to move it. It should not be possible to tilt the helmet:
 - forwards to cover the eyes
 - backwards to uncover the forehead
 - sideways to uncover the side of the head.
- When the helmet is done up it should be squarely positioned on the head.
- The rim of the helmet should sit on the forehead just above the eyebrows and should not be tilted back to uncover the forehead.



- The straps should be adjusted so that there is no slack when the buckle is securely fastened under the chin. They should not be twisted and the side straps should form a "V" shape with the point just under the ear lobe.

FOOTWEAR AND CLOTHING

1. Footwear



- Shoes should have firm non-slip soles to provide traction on the pedals and have closed toes to prevent injury from road or footpath surfaces.
- Long shoe laces should be tucked in to prevent being caught on the chain or pedals.

2. Clothing



- Bicycles are small in comparison with other vehicles on the road. Being visible and conspicuous to other road users improves the safety of cyclists.
- Clothing must be bright and light coloured to improve visibility.
- Wear protective clothing for the weather conditions especially in hot, cold, windy or wet weather.

