8. Using gears

National Standard reference: 2.2.2

Instructing points

- Understand that effective gear use makes cycling more comfortable: low gears make it easier to start, ride at a slower speed and cycle up hills. High gears are suitable for riding faster.
- Use shifters to change gear.
- Pedal while changing gear if your cycle has derailleur gears.
- Change gears to vary your speed.
- Change to a lower gear when slowing down or stopping.
- Rather than looking at numbers on the gear shifter, feel the gears in your legs and change accordingly.

Activity ideas

Learning how gears work is best done while riders are riding rather than giving them a long explanation. Now that riders can start, stop, make the cycle go where they want and ride together in a snake, consider moving straight into teaching gears on the move. Riders may first need to be shown where the gear shifter levers are on their cycles.

One option is to ask the group to ride in a snake behind one instructor who reduces or increases the speed. The instructor does this significantly enough that riders will need to adjust their gears to maintain control of their cycles.

The other instructor asks riders to figure out how to shift their gears, and in which direction to maintain the same pedalling speed (cadence). You can also get individual riders to lead the snake, though it can be helpful, and in some cases safer, for an instructor to lead and set the speed. Ensure that the snake regularly changes direction.

Riders who struggle to change gears might need you to show them how to use their gear shifters on their cycle. They then rejoin the group when ready.

Riders learn to shift to a lower gear as they stop. They may stop in a high gear at first and then find it hard to start again. They then practise varying speed and shifting gears accordingly, starting and stopping repeatedly until all riders constantly start riding on a low gear.

You can also consider coaching riders to use their gears when practising U-turns (changing to a lower gear can help you accelerate from the U-turn). Coach this when riders are on the move to increase riding time.

When describing gears, terms like 'easy' and 'hard' gear can help describe low and high gears. Using numbers to describe might not help, as different people will feel comfortable pedalling at different cadences.

Sample questions to check understanding

Q.   What are gears used for?

Q.   Where are the gears on your cycle?

Q.   What is a good gear to start in?

Q.   Where should we look when changing gears?

Q.   What do we need to do when changing gears?

Differentiation

Inclusion

Include riders with one gear (such as BMX cycles) in this activity. They can demonstrate understanding outcomes by answering questions. Ensure riders with different shifting mechanisms know how to use them.

Extension

Simplify

Show the rider on their own cycle how to use their gears, and how to change from a higher to a lower gear.

Challenge

While most riders will learn how to change their rear gears using their right hand, teach more competent riders how to use both front and rear gears if present.

Ask riders to move to a slope or between a tarmacked area and grass and to change gears accordingly.

Risk benefit assessment

Risk

- A rider looks down at the shifter rather than looking where they are going and rides into the person in front.
- When stopping, a rider shifts their derailleur gear down without pedalling, causing their chain to jump as they start, which could cause a fall.

Mitigation

- Ensure riders have enough space between them and the person in front. Remind them to look up, to feel the gears in their legs, and to cover their brakes.
- Watch out for 'non-pedallers', prompting them as necessary to shift back up and start pedalling. Alternatively, when they have stopped, move their shifters, or spin the pedals to align the chain.

Benefits

Through effective gear use, riders become able to cycle with more control and comfort. They also learn to cycle up hills and to ride faster with control.