



STAGE 1 SESSION 5

CYCLING IN COUNTERFLOW - CYCLING IN GROUPS

Gearing

Selecting the right gear based on a feeling of comfort and ease helps cyclists to regulate their pedalling and ease with which they pedal, low gears are easy and high gears are harder.

- **Gears** are linked to **pedalling**.
- The rate of pedalling is known as **cadence**.
- Ideal cadence is a quick, steady **pace**.
- When the legs can rotate quickly and at a steady pace there is
 - Better **balance**
 - **Less fatigue**
 - More **speed**
 - **Reduced knee strain**
- The **gearing system** guides the chain over the chainring (front derailleur) or the sprocket of the cassette (rear derailleur).
- Bikes may have:
 - **Gearless**
 - **Back only**
 - **Front and Back** systems.
- Gears are controlled by **shifters**, generally found on the handlebars.
- The **mechanism** can be worked by different systems.
 - **Dial**
 - **Lever**
 - **Grip linked**
 - **Combined**
- Examine the gears on bikes to see how they work and their ranges.

AIMS & OUTCOMES



Counter-flow traffic and group cycling. Focus on control of speed and all-round observation as central to safe cycling will continue.

This session covers:

- Group cycling
- When it is appropriate to ride in single file or two abreast on the road, shared facilities and cycle paths.
- Singling out.
- Communicating with other riders when riding in a group.
- Gears.
- What side of the road traffic travels on in Ireland and how this varies from country to country.

Changing Gears

- **Keep pedalling**, when changing gear - changing gears without pedalling may cause gears to miss or jump.
- **Don't look down**
- Change gears **smoothly**, one gear at a time.
- Choose the correct gear to maintain the correct cadence.
- Avoid pedalling slowly and pushing too hard in **high gear**.
- Adjust to a higher gear if bouncing on the saddle.
- Use **low** gears going **uphill** for easier and more efficient pedalling
 - Anticipate the hill by shifting gears into a lower gear before pedalling becomes too hard.
- Use high gears going downhill.
- Avoid crossing the **chain** (i.e. big chain-ring to big sprocket).
- Shift into a **lower gear before stopping**, in preparation for starting again.



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Counter Flow

Counter flow is the system by which traffic generally moves on road networks with vehicles moving in different directions on either side of the road subject to destination. In Ireland and some other countries traffic travels on the left. The other form of counterflow seen in mainland Europe, the USA and other areas is where all traffic travels on the right. It is critical to understand this aspect of vehicle movement which can have particular implications for manoeuvres such as negotiating roundabouts and junctions.

- **Look ahead**, maintain a **smooth pedalling** rhythm.
- **Keep to the correct side** (left in Ireland).
- **Cover the brakes** but avoid sudden braking.
- Use **gears** to maintain position and **appropriate speed** in counterflow traffic.
- **Anticipate changes in the speed**, react by changing pedalling and not braking, where possible.
- Maintain **safe stopping distance**, depending on surface and weather conditions, as well as speed.
- **Slow into corners** and make sure the inside (turn side) knee is up.
- Keep the **handlebars straight**, when looking over the shoulder to check the rider behind.
- Watch out for those **travelling in the opposite direction** who may not stay to their correct side – be **prepared** to stop or take **avoiding action**.
- Do **not overtake** unless it is safe to do so – clear line of vision, speed and space to pass and return to position safely
- Never overtake more than one other vehicle in the same manoeuvre.

Cycling in Groups

Sometimes cyclists will be on a journey alone, but often they will cycle with others, so it is important to know how to cycle with other people.

- **Look ahead**, maintain a **smooth pedalling** rhythm.
- While **awareness** of others in a group is very important, **avoid looking directly** at other riders to left or right as this can cause **veering** towards those riders.
- Avoid unannounced movements out of line – moving **suddenly to left or right** can be **dangerous** in close groups.
- **Never undertake** other riders in a group.
- Aim to **maintain steady speed** – sudden bursts or braking can be problematic as cyclists in groups will usually cycle closer together.
- **Cover the brakes** but avoid sudden braking.
- **Anticipate changes in the speed**, react by changing pedalling and not braking, where possible.
- **Communicate** with partner or group through **agreed signals** and/or **verbal** instructions.
- Keep the **handlebars straight**, when looking over the shoulder at the rider behind.

Cycling Single File or Two Abreasts

How should cyclists ride with others on the road?

- The rules of the road state that cyclists should never cycle more than two abreast.
- Cyclists are allowed cycle in twos side by side, but only if they are not holding up or causing inconvenience to other traffic.
- When moving from two abreast to single file the rider closest to the edge of the road should speed up to move ahead and to give the other rider time and space to move in behind them.



FEEDBACK AND EVALUATION



Where school teachers can facilitate practice on bikes for pupils the following questions can be used to promote learning. These can be posed as self-reflective questions by the teacher, or can be used directly to prompt pupils.

- Are helmets adjusted to the correct size and position?
- Are there any clothing problems such as open laces?
- Has everyone performed a bike check and ensured the bike is the right height for them?
- Are there any aspects of the cycling environment and/or the weather which might cause a problem when cycling?
- Can everyone start and stop safely in various conditions?
- Does everyone know which side of the road traffic travels on in Ireland and why road users will always be on their left, but that there will generally be traffic travelling in the other direction on the other side of the road?
- Does everyone know the difference between left- and right-hand road systems?
- Is everyone aware of the possible hazards of traffic travelling in the other direction?
- Does everyone know what it means to cycle single file, two abreast, or in a group and do they know when and how cyclists should single out to let traffic flow and to be considerate of other road users?
- Does everyone continue to show improving balance, co-ordination, signalling, pedalling and gearing skills?
- Does everyone continue to show awareness of safe speed, how to control speed and the importance of all-round observation on a bike?