



Bike-to-Work Skills Workshop  
Manual for Cycle Trainers

Prepared for *Bike Now* by

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# 1 Introduction for cycle instructor's workshop

The following feedback from a participant gives a good description of the course:

*Before I did the cycle skills course at University I was somewhat sceptical about how much I would learn – given I consider myself a reasonably experienced commuter cyclist. But I went into it with an open mind and found that several things of great value were brought to my attention. This is because the course focuses on the basic principles of riding a bike – hence the content is applicable for all riders (not just beginners).*

*I have gained knowledge of the course content and understanding of how to run the course. I could see how you had developed the coaching material since the training course at University. I now feel confident that I could run a cycle skills course myself.*

*I was interested in all aspects of the course, although I especially appreciated the time spent discussing road riding and intersection scenarios.*

*The course content reflects knowledge, experience and an enthusiasm for cycling.*

## 2 Handling challenging participants

Because we have a range of different people with different abilities, experience and perceptions, we need to be ready to respond to the different challenges that arise.

Physiological challenges:

- Fear
- Previous experiences
- Preconceived ideas
- Character Traits

Physical challenges:

- Fitness
- Disabilities
- Prior Injuries

Show empathy and offer solutions when able. Be firm at times.

Recall that your first priority is the safety and well-being of ALL participants. If any one participant is putting the others at risk, you may request that they leave.

### 3 Preparation before sessions

Know your participants: Use a Registration form (see appendix) or do telephone interviews.

- a. Evaluate what participants require of you.
- b. Be prepared to modify the program order or length of time to suit participants before and during the sessions. Remove doubts. Answer all questions, or promise to try and get the information.
- c. Have all the equipment that is required.
- d. Have First Aid kit that is fully equipped
- e. Allow extra time in your schedule
- f. Arrange an area the size of a netball court. Preferably on tarmac or concrete, but grass is alright (more tiring on grass though).
- g. Have a wet weather plan, e.g. indoors or postponement.
- h. The "Know your bike" section is written to educate the rider about what can go wrong and know how to look for faults. Its objective is to instil confidence in the participants to recognize an unsafe bike before it is too late, as well as to learn that bikes require little maintenance and therefore are safe.

It would be best if participants have their bike check/fixed before they come to the course. **We are not there to fix their bikes.**

In the workshop, we go through and get them to check it themselves while we explain what to look for. This way they get to know their bikes. And we get the WOW factor: for example; "wow, I thought that lever was to release the back wheel"!

### 3.1 Equipment used during sessions

- Leader's instructions sheet
- Whistle
- Bright clothing
- Ankle straps
- Gloves
- Shorts
- Helmet
- Pump
- Tools; Seat spanners - 13mm,14mm, 15mm, Allen keys, screwdriver (to leverage off roller from rear brake) adjustable crescent
- Large cones (30 or more) 4 or 8 with a different colour
- Six 2 or 3Lt Drink bottles half filled with water
- 1 fence paling 1.2 metres long
- 2 lengths of decking timber 1 metre long
- Wooden garden edging (.300mm high and 1\2 metre in length) this may be tricky as it sometimes is only sold in 5 metre lengths.
- Bits of narrow carpet (1.000mm long x .200mm wide) should be able to get it free from a carpet layer.
- Runner boards - five pieces of timber (.500mm long x .050mm wide) nailed or bolted together -three a cross and two down underneath.
- High piece of wood (1mt no shorter as slips around to easily already). I got a free piece from placemakers that they receive as packing. Like a half round but a little higher if possible.

Sometimes I use chalk or spray paint to make the course clearer - this takes time and permission is needed beforehand.



High Board



Run of boards



Garden edging –  
Run of boards



Floor Stand for  
bicycle



Carpet

### 3.2 Vinyl road map





## 4 Time Guideline

The course may be offered as one whole day (six hours) or as a two or three day workshop, using the following guidelines. Where necessary, it may be offered in a four hour version over two sessions.

### Whole day course

Section	Topics	Least amount of time (in minutes)
5.1	Welcome and Introduction	5
5.2	Helmet	10-15
5.3	Bicycle to fit the rider	30-40
5.4	Riding techniques A	10
5.5	Riding Skills A	15
5.6	Know your bike	30
5.7	Circuit Riding B	30
5.8	Clothing	10
5.9	What to take on a ride	10
5.10	Motivational techniques	10
5.11	Bike Control	15
5.12	How to fall off	10
5.13	Circuit riding with road rules C	30
5.14	Road riding Tips	20
5.15	Road Intersections	30
5.16	Guide to gearing	20
5.17	Road Ride Now	60

## **Two 3 hour sessions**

### **Day 1**

- Welcome and Introduction
- Helmets
- Bicycle to fit the rider
- Riding techniques A
- Riding Skills A
- Know your bike
- Circuit riding B
- Clothing
- What to take on a ride
- Motivational techniques
- Bike Control

### **Day 2**

- How to fall off
- Circuit riding with road rules C
- Road riding Tips
- Road Intersections
- Guide to gearing
- Road Ride Now

## **Three 2 hour sessions**

### **Day 1**

- Welcome and Introduction
- Helmets
- Bicycle to fit the rider
- Riding techniques A
- Riding Skills A
- Know your bike

### **Day 2**

- Circuit riding B
- Clothing
- What to take on a ride
- Motivational techniques
- Bike Control
- How to fall off
- Circuit riding with road rules C

## **Two 2 hour sessions**

### **Day 1**

- Welcome and Introduction
- Helmets fit & safety (10 mins)
- Clothing – visual safety (10 mins)
- Manage route to work
  1. Road riding Tips (10 mins)
  2. Claiming and holding your space on the road (20 mins)
  3. Eye contact with the driver (10 mins)
- Identify black spots (10 mins)
  1. Road intersections
- Bike control
  1. Using front and back brake correctly (20 mins)
  2. Using gears (10 mins)
  3. Using bike lights (10 mins)
- Your bike – commuting, safety and skills (20 mins)
  1. Know your bike
  2. What to take on a ride
  3. Motivational techniques
- Bicycle to fit the rider (20 mins)

### **Day 2**

- Riding techniques
- Riding Skills (including circuit riding & on-road riding)
- How to fall off

## 5 Sessions Contents

### 5.1 Welcome and Introduction of tutor

Explain your experience with cycling previous and/or present. Stay away from negative statements, peoples' negative perceptions and safety problems.

### 5.2 Helmets

#### *Quality*

Check for cracks and damage by observation of the inside helmet area and through pulling it apart. Also look for cracks in the outer shell. Older helmets and helmets which have received impact should be replaced as the polystyrene is weakened.

#### *Fit*

Check helmet fit on head with straps loose. When moving the helmet in the yes and no directions participants head must nod yes and no with the helmet. If loose then it is a wrong fit.

The fit may be adjusted to suit the head shape and size. There are different systems that have come with the development of the helmet.

Here are the solutions (if possible) for the different systems to make the helmet fit the head firmly.

Older version with only pads;

- Replace older pads worn pads
- Replace thin padding with thicker padding
- Replace only padding in areas that need more support, with thicker pads

Head strapping joined with Velcro on helmet:

- Adjust by moving the strap forward
- Replace padding with thicker pads

Head strapping adjusted by dial tension or clip tension at the back of the helmet;

- Alter setting – note that the helmet should not be too tight on the head, causing pressure points.
- Replace padding with thicker pads in areas that need more support.

Check position of strap tension holders. This is the clip that holds the back and front straps together and stops the helmet from falling forward or backward. Move the tension holders till they are just under the ear and adjust straps so that the helmet is not able to move backwards or forwards.

Next close the buckle under the chin. Participants should be able to put one finger between the strap and their chin. Tighten or loosen the buckle strapping to achieve this.

### 5.3 Bicycle to fit the rider

When checking the rider's body in relation to the bike, begin with just the seat height method (a. Seat height) and then if the bike is too big or too small explain what affects the body position (b. Frame Size).

#### Seat height

To set the seat high to an ideal position use the following method:

- Have the person sit on the bike while you hold the bike upright, i.e.... "Please sit on the seat while I hold the bike".
- To hold the bike and weight of the person upright, grab the back of the seat. Apologize if you touch the person's bottom.
- Position the pedal crank down on the side where you are.
- Ask the person to put their heel on the pedal. You may have to rephrase it by saying "put the back of your foot on the pedal."
- When they are in this position there should be a slight bend in the knee.
- Raise the seat height if the knee is too bent.
- Check it again in the altered position.

**Note:** Some people will not want their seat height raised. Older people may be particularly fussy about this. Acknowledge their reluctance and concerns, and then explain that they will be more comfortable and better balanced with the seat at the correct height. You will receive a lot of thanks later for having done it!

Let participants know that if they fit new pedals to their bike or move their seat forward on the rail, they will need to have their seat height re-checked.

#### Frame Size

The size of the frame will affect the rider comfort, ability and health. Therefore, it is important to have the right size frame.

General recommendations suggest when standing over the frame with the feet flat on the floor, there should be an inch between the person's crotch and the frame for on-road riding (or two to three inches for off road riding).

There are other ways to measure the person for the correct size. If a participant has any concerns, recommend they go to a bike shop.

*Reach for the rider:* The length of the top tube dictates the length of reach for the rider to the handle bars and therefore the body position. If a participant is having difficulty with reach or is uncomfortable, suggest they go to a bike shop and have it sorted there. For example, a shorter handle bar stem can alter this length or the position of the seat rails on the seat pillar will alter the length of reach and body position.

## 5.4 Riding Techniques A

*This first exercise concentrates on balance and skills. The use of gears will be explained in more detail later. If someone pushes hard to know more, then share the knowledge now.*

- Start with the chain in one of the smallest cogs (tarmac riding; if on grass, use larger cog) at the back derailleur and on the middle chain ring (number 2) at the front derailleur.
- When getting on a bike make sure the ground is level or that bike is mounted on uphill side of the bike. Lean the bike over to get on the bike or step on it off a kerb.
- Start with right hand pedal up, parallel with the frame down tube
- Have the ball of the foot over the middle area of the pedal.

## 5.5 Riding Skills A

### Riding in a straight line

- Using cones, set up two straight lines 1 metre apart from each other and 50 metres in length.
- Have participants follow each other riding through the middle of the cones. Following others helps them to focus ahead.
- Participants must learn to:
  - Look up ahead, focusing in the distance (just like driving a car);
  - Maintain a reasonable speed, not too slow.
- Once all participants have ridden through the cones move the cones to  $\frac{1}{2}$  a metre apart. Have the participants ride through the cones applying the same principles.

### Stopping

- Apply back brake then front.
- Participant starts riding towards the line, coming to a complete stop with the front wheel of the bike just behind the line. This exercise makes them aware of how long it takes for their bike to stop, and gives them stopping confidence.
- Practice emergency stopping – riding and coming to a complete halt when the whistle is blown.

Also mention to use the brakes before they need to be used when riding in wet conditions, so as to dry the rim off, especially if the bike has steel rims.

### Looking Back

- Use a mirror on the right hand side.
- Bend the left elbow. This drops the left shoulder down and tilts the neck with the shoulders.
- Place the right arm on the right thigh.

## 5.6 Know your bike

Go through the check sheet below with the bike in a workshop/ floor stand or later have someone hold the bike up when checking gears.

### 5.6.1 Bicycle Mechanical Check List

#### 1. Frame

- No Cracks
- No bent areas
- No damaged mounts



#### 2. Tubes

- Firm pressures
- Straight valve



#### 3. Tyres

- No Cracks, slits
- Sits evenly on the rim, not raised

#### 4. Hubs

- Smooth turning on axle
- No side to side play, no loose axle cones
- Correct tension of Nuts or QR
- Coaster back foot brake engages promptly



#### 5. Wheels

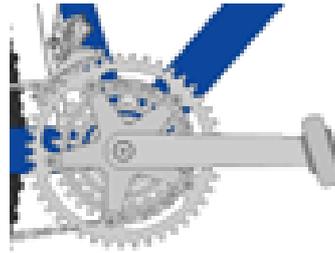
- No broken or loose spokes
- Runs in straight line with no kinks or flat spots

#### 6. Brakes

- No major play at pivot points
- Callipers arms are not loose
- Disc brake disc is tight
- Firm response when pull brake lever
- Cables moving smoothly

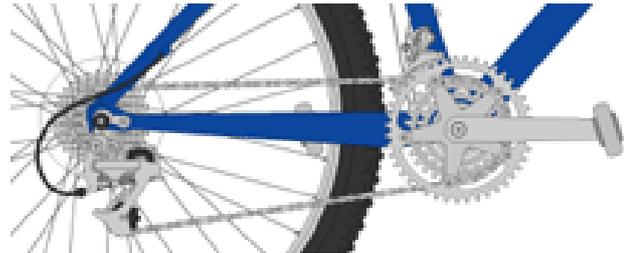
## 7. Bottom Bracket

- Axle has no side to side play
- Smooth turning
- No cracking/creaking noise
- No cracks in parts



## 8. Cranks

- Not loose on Bottom Bracket axle
- Chain rolling firm on chain wheels
- Chain rings not bent
- Chain ring teeth not damaged.
- Note; some teeth are made shorter for smoother gear changing



## 9. Chain

- Not slipping
- No stiff links
- Lubricated

## 10. Pedals

- No bent/broken parts
- Not loose on pedal axle
- Not stiff when spinning

## 11. Gears

- No bent/broken parts
- Changing smoothly into gear
- Cable moving smoothly

## 12. Freewheel

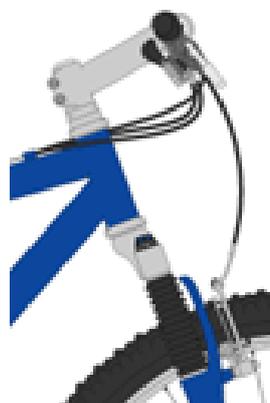
- Freewheeling smoothly
- Engaging when pedalling forward

## 13. Front Forks/ Head set

- No play from top to bottom when applying front brake, Note; suspension may give similar feeling or a loose front brake disc.
- Smooth turning
- No bent or cracked parts

## 14. H/Bars Height

- Height to suit rider
- Correct tilt
- Not loose
- Not bent



**15. Seat/Seat post adjustments**

- Height to suit rider
- Level with the ground or to suit riders personal preference (comfort or medical reasons)
- Tight Bolt & Nuts or QR



**16. Extra Fittings on Cycle**

- No loose parts or objects
- No bent parts or objects

**17. Reflectors**

- Tight
- Visible

**18. Extra bolts and nuts**

- Check tight bolts and nuts

19. Now explain and show how a quick release works and a safe way to lock the bike.

### 5.6.2 Bicycle Test Sheet

Name: \_\_\_\_\_

Bike Make & Model: \_\_\_\_\_

Item	Up to standard?		Requires
	Yes	No	
Reflector Front	Yes	No	Need
Reflector Rear	Yes	No	Need
Handle Bar Plugs	Yes	No	Need
Handle Bar Grips	Yes	No	Replacement
Tight Handle Bars	Yes	No	Tighten centre
Tight Handle Stem	Yes	No	Tighten centre
Tight Steering System	Yes	No	Adjustment Replacement
Fork	Yes	No	Replacement
Frame	Yes	No	Replacement
Chain wheel set	Yes	No	Replacement R L
Bottom bracket	Yes	No	Adjustment Replacement
Pedals	Yes	No	Replacement
Chain tension	Yes	No	Adjustment
Cluster/freewheel	Yes	No	Adjustment Replacement
Tyres	Yes	No	F or R Replacement
Wheels	Yes	No	F or R Replacement Spokes Straighten
Brakes	Yes	No	F or R pads/disc F or R cable L or R lever / adjustment bolt
Gears	Yes	No	F or R cable L or R lever
Seat and seat pillar	Yes	No	Adjustment Replacement
Accessories	Yes	No	Adjustment Replacement

## 5.7 Circuit Riding (B)

Use circuit plan outer circle only with obstacles. Sometimes park the car in the area of the obstacle course and open the driver's door, but remember to warn the cyclists that you will be doing it.

### 5.7.1 Exercises:

Riders will learn to negotiate gentle curves, weaving, tight turns, going over obstacles.

1. Ride around the obstacle course in single file, maintaining a reasonable speed, not too slow
2. Teach participants to deal with obstacles comfortably and safely by:
  - a) Keep the momentum up.
  - b) Have the crank/pedal position up on the side of tall obstacles
  - c) When cornering have the crank/pedal position up on the inside of the corner, as it helps with balance and not hitting raised objects.
  - d) When going over bumps stand on the pedals by having the pedals level with the ground. Once competent can also stand on pedals in any position if there is a firm shoe grip.
  - e) With big bumps stand on pedals and have slightly bent knees.
  - f) When riding through narrow long spaces and when riding over long narrow obstacles, first look down to line up the front wheel and then look up ahead.
  - g) When riding through a dark tunnel look up most of the time into the distance to stop steering wobble.
  - h) Line up front wheel straight onto object. If the bicycle wheels are on an angle, they may slip out from under the rider. This is especially true for slippery surfaces, such as train tracks, drain piping, road markings, tree roots, etc. Wet items can be slippery.
  - i) Do not look directly at the cones or objects such as trees, look beyond or next to them
  - j) To deal with opening doors, look in the right hand door mirror of the car to see if the driver is moving.

## 5.8 Clothing

The over-riding principle is: **'Be safe be seen'**.

- **Bright clothes.**
  - Always wear bright or light coloured clothes.
  - To demonstrate, nominate a person with bright clothing (or yourself) and someone with dark clothing to stand four metres or more away. Ask the audience who stands out more. Highlight the fact that lighter brighter colours stand out more.
  - Car drivers have lots to look out for, so cyclists do not always stand out.
  - Recommend fluoro and reflective clothing to be seen.
  - Ankle straps are effective as the movement attracts attention.
  - Good quality cycling jackets are designed to not be too hot and are a good wind shield. Check whether they are rated as shower proof or water resistant and choose which is appropriate to you.
  
- **Cycling shorts**

Cycling shorts are a great comfort factor during longer rides as they take away the sweat and stop some chaffing. There are Lycra tight fitting shorts or baggy shorts with casual material, both have a chamois system in them.
  
- **Solid shoes**
  - Non-slip shoes, no jandals
  - Shoe laces should be tucked in the side at the outside heel position or through lower lacing cross pattern.
  - Cycling specific shoes are available. They have a hard sole to stop flexing and therefore retain more pedalling power than a standard shoe. There are different types for different riding, such as road, MTB, BMX, Downhill etc.
  
- **Riding gloves**

Increased grip on handle bars. To help protect your hands from abrasions, scrapes, buckling of hands from vibrations and to keep hands warm. A standard pair of light weight thermal gloves is recommended underneath riding gloves in the winter.
  
- **Keeping trousers safe**

Put trousers out of the way by tucking in to socks or by wearing trouser bands/straps to stop them getting caught on the front chain rings and other items. There are reflective trouser bands available which are very good. They keep a firm hold of trousers and work well when reflective qualities shine at night; the movement of the legs is out standing

## 5.9 Items to take on a ride

There are many accessories and tools designed to be used for commuting to work, including:

- **Pannier Rack (Carrier)** that mounts to the bicycle frame or seat post mounted rack. A frame mounted rack carries more weight than a seat post mounted rack.

The lower the pannier rack /panniers are to the ground the easier the bike is to handle because of gravity.

Bicycle trailers are another option. They carrier more weight, but extra length is added to the bike.

- **Rear panniers** (they come in pairs)  
Panniers have hidden pockets and carry a lot when packed well. There are some pannier bags specifically designed for laptop computers. Some laptop computer bags come with rack mounting straps.

Padlock or zippy tie the panniers on if you do not plan on taking them off or if they move forward to much making your feet hit them.

- **Mudguards**  
There are full mudguards or half guards. Also, at the front, you can have a “grud catcher” (piece of plastic) that is zippy tied on the frame just behind the wheel.

Some racks (carriers) come with a solid centre that also stops water and mud coming onto the rider’s bottom. If no centre piece is present on the rack a piece of plastic (one side of a milk bottle) zippy tied on does the same job.

- **Lock(s)** Cable lock and ‘U’ lock  
If the bicycle is parked in a high risk area, then remove the front wheel and lock it up with the lock going through the frame and both wheels to a firm stand/object. Also, lock the seat if it has a quick release seat bolt.

Do not lock the bike to a parking meter.

- **Light weight jacket and light weight leggings** (overpants)  
A hood on the jacket can be really useful if it is raining, windy and/or cold.
- **Reflective bright light coloured clothing.**
- **Bicycles lights**, front and rear flashing.
- **Bicycle Bell**  
To warn people that a bicycle is approaching, ring the bell no later than five meters or more away. When passing the people say “thank you, just warning you so that you don’t get a fright.”
- **Air Horn**  
This is solely to warn vehicles and dogs. They are too loud for pedestrians.
- **Mirror**  
Note: If having only one mirror mounted put it on the right hand side of the bicycle.
- **Stand**  
Bike may tip over if the weight is not balanced.
- **Spare tubes** (1 or 2)  
If the route involves glass then definitely (especially on wet days) take a tube.  
  
Keeping the tyres firm eliminates punctures. If punctures become persistent then install a tyre liner or put an anti-puncture product (ie.slime) in the tube.  
  
If riding over rough roads, put talcum powder between the tyre and tube.
- **Mini Air Pump**  
Only take a pump when you take a tube.
- **Tools**  
Tools to carry include: tyre levers, Allen keys, chain breaker with two plates, Phillips screwdriver, screwdriver flat head  
  
These come as individual items or as a compact folding tool.
- **Clip in pedals and shoes**  
Clip in pedals and shoes create more even riding strokes, using exerted energy more efficiently. They also make it easier to jump the bike over obstacles as your feet do not slip off bicycle pedals.
- **Extra padded/Gel Seat**  
Seats can be replaced for more comfort.

## 5.10 Motivational techniques

Often when we have the motivation to ride, we do not have the time and when we have the time, we do not have the motivation. Therefore it is important to include some “enthusiasm” techniques in your riding patterns.

### Here are some reasons of why we ride to work:

- To be able to ride with someone whom you admire for his or her ability or dedication.
- To lose weight
- To get fit or to keep fit
- To be able to ride frequently when you go on holiday
- A reward when completed a certain amount of rides
- To see more scenery
- To be able to ride to work
- To save travelling costs
- To save time waiting for public transport
- To save the environment
- Entertainment

### Keep a Riding Journal. Include the following:

- Date of last ride
- Date of this ride
- Speedometer results
- Weather conditions
- Traffic influences (drafting behind a tractor)
- Health problems
- Route rode
- Aim (e.g. fitness or transport)
- Road condition
- Bike used

## 5.11 Bike Control

Mark out two lines 5 metres apart with chalk or cones.

### Ride from one line to the other line as slow as possible.

This is achieved by balancing the bicycle with the use of the following:

- Brakes
- Freewheeling backwards
- Pedals most of the time level to the ground for body balance
- Body weight positioning

- Keeping the frame in an upright position.

### **5.12 How to fall off safely**

By using this method the handle bars and pedal may get scratched, but they cost about \$15.00 each. Which are more valuable the body or pedals and grips?

Instructions to be incorporated in a fall are as follows:

- Put the leg on the falling side out two or three feet, walking or running off the bike, let go of the handle bars, drop the bike on the ground.
- The initial speed of the bike will dictate walking or running.

### **5.13 Circuit riding with road rules C**

Use the complete obstacle course plan.

There are two places where riders must look and give way to the right.

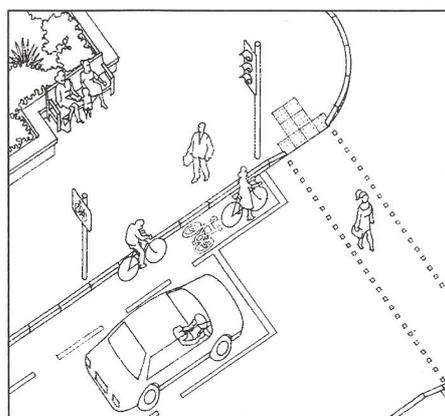
Use the different coloured cones as give way indicators.

Include obstacles in the same places as previously.

Practicing this will cause a growth in skills and confidence.

## 5.14 Road riding tips

- Obey the road rules for cyclists and vehicles.
- Study the traffic and the road ahead. **LOOK! LOOK! LOOK!** Especially when the traffic is slow, as some cars will stop to let other cars through and then your path would be obstructed. Stand on the pedals to see over cars.
- Indicate clearly with **hand signals** your intentions! **Do the expected, not the unexpected.**
- Keep left of the outer white line when possible, or where there is no outer line, as far left as is practically safe. The Land Transport New Zealand wording is “keep as far left as you safely can”.
- Do not ride near the gutter as there are uneven surfaces, glass and other sharp objects, unfriendly-to-bicycle-wheels storm water covers, etc.
- Do not weave in and out of parked vehicles as you will not always be visible to traffic.
- If moving near the speed limit and the lane is too narrow for vehicles to safely overtake, or if avoiding a parked car door or other road side hazards, ride in the vehicle lane. Drivers of vehicles would rather the cyclist take the lane, than teeter on the outside in the rough where they are not sure of what the cyclist is going to do. The rough would slow the bike down.
- Stay off the footpath unless it is designated for cyclist as a cycle path. Vehicles generally pull out of driveways or intersections without first stopping prior to the footpath.
- Have an assertive riding attitude!
- **Have a self defensive riding style!**
- You may use the bus lane, as long as there isn't a sign forbidding this.
- Go straight across tram or train tracks at a ninety degree angle to the track.
- Go over straight edged objects or pipes at a ninety degree angle to the object/pipe.



*Advanced cycle lanes at intersections*

**Drafting**

Ride behind someone else. The closer you are the more drafting occurs. The front rider breaks the air barrier and therefore makes it easier riding for the follower. The front person can also be a wind break if the follower is positioned correctly and the wind is coming from in front or from the side at a 45° angle. A slow moving vehicle can also be used. Watch carefully though. Whatever you are following will slow down or stop.

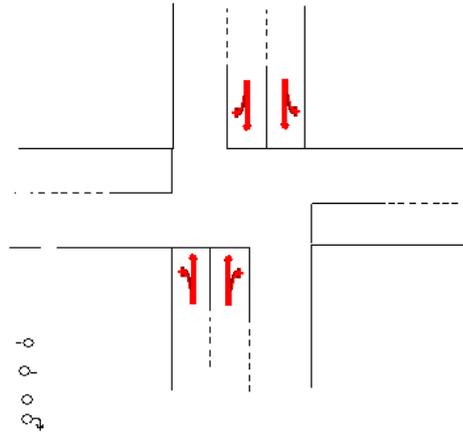
When a truck goes past it causes a draft. When going up hill this is very handy. Being next to a truck in a bend going down hill is dangerous. The draft from the truck in a bend literally sucks you in and, therefore, under the truck.

## 5.15 Road Intersections

- Controlling the bike while indicating at stop or give way signs:
  - Indicate left hand turn or right hand turn five metres (or four bike lengths) before give way and stop signs.
  - For stopping/slowing down hand signal, raise the hand when passing the give way or stop sign and then lower when two metres away from (give way, stop) line.
- Controlling the bike while indicating at traffic lights.
  - When approaching the traffic lights start indicating left hand or right hand turn at ten metres (or eight bike lengths) away till five metres (or four bike lengths) away from stop lights.
  - For stopping/slowing down hand signal, raise the hand at five metres away from stop lights.
- Use shadow riding with cars as a defence at certain intersections
- Yielding – yield to the cars coming when changing lanes or making any side movements.
- Wise decisions at crossroad intersections – the following examples (including hand signals) will be shown by using a white board.

**Note:** the motorists speed and rate of courteousness will affect decisions. Therefore what is suggested here must be undertaken with forethought, practice and assertiveness.

1. Single lane with left turning vehicle and left turning cyclist.
2. Single lane with vehicles turning left and vehicles going straight through, cyclist wishes to go straight through.
3. Single lane with straight through arrow and right lane turning arrow, the cyclist wishing to turn right.
4. Two lanes with the left lane having a left turning arrow, right hand lane having a straight through arrow and right turning arrow, the cyclist wishes to go straight through.
5. Two lanes with the left lane having a left turning arrow, right hand lane having a straight through arrow and right turning arrow, the cyclist wishes to go right.
6. Two lanes left lane having a straight through arrow and left turning arrow, the right lane has a right turning arrow, the cyclist wishes to go straight.



- Wise decisions at Roundabouts – the following examples (including hand signals) will be shown by using a white board.

**Note:** the motorists speed and rate of courteousness will affect decisions. Therefore what is suggested here must be undertaken with forethought, practice and assertiveness.

1. Single lane with left turning vehicle and left turning cyclist.
2. Single lane with vehicles turning left and vehicles going straight through, cyclist wishes to go straight through.
3. Single lane with straight through arrow and right lane turning arrow, the cyclist wishing to turn right.
4. Two lanes with the left lane having a left turning arrow, right hand lane having a straight through arrow and right turning arrow, the cyclist wishes to go straight through.
5. Two lanes with the left lane having a left turning arrow, right hand lane having a straight through arrow and right turning arrow, the cyclist wishes to go right.
6. Two lanes left lane having a straight through arrow and left turning arrow, the right lane has a right turning arrow, the cyclist wishes to go straight.
7. Two lanes left lane having a straight through arrow and left turning arrow, the right lane has a straight through arrow, the cyclist wishes to go straight.

## 5.16 Guide to Gearing

Teach the participants that to change gears, there must be sufficient pedalling speed. If there is not enough pedalling speed, a rough change will occur. This will cause unwanted stress to the chain and derailleur. Do not change the gears too late. Anticipate what gear is needed to create an easier and smoother ride.

Use the following as a guide for which gear is appropriate for the situation:

- Big Chain ring for Down hill riding (Riding mountain bikes on-road may use it earlier as the chain-ring size is smaller than a specific road bike chain-ring).
- Middle chain-ring for on-the-flat-riding
- Smallest chain-ring for uphill riding
- The back gears are used for finer adjustment, such as for wind, grass, gravel, head wind etc.
- If there is a good tail wind there is a chance that you would be in the big chain-ring.

Use this guide and you will never have the chain on a big to big gearing. Having the chain on a big cog at the back and a big chain-wheel at the front causes stress and extra load on the chain.

On older bikes, be aware of the type of noise made, i.e. rough if not in gear properly.

Also if the derailleur is out of adjustment, proper alignment will not occur.

## 5.17 Going for a ride

1. Go to pre-selected road intersections, and as a group, observe and discuss:
  - The road layout and its effect on traffic.
  - The road traffic, discussing what the vehicles do.
  - The other cyclists: discuss their wisdom and foolishness, and any lack of consideration.
2. Use (1) a T intersection with right hand turning arrow if possible and (2) a roundabout that is not too busy. Lead one or two people at a time through an intersection, putting into practice recommendations.
3. Go for a ride around the streets in single file. During the ride, create opportunities to change gears, including go up an incline (on a quiet street). Ride with individuals, reminding them when to change gears.

## **6 Appendix – Flyers and forms**

Workshop flyer

Pre-registration form

Attendance sheet

Evaluation form



## Cycle Skills Workshop

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### DO YOU.....

- *Want to return to riding but haven't been on a bike for a while?*
- *Want to ride but feel uncertain at intersections or finding a safe route?*
- *Or perhaps you already ride and want to refresh some skills and knowledge?*

***Then you will want to be part of this practical workshop available to [organisation] staff as part of the **Bike Now** programme.***

The workshop is made up of 2 sessions, each taking around 3 hours each,

### **When?**

Date and time  
Date and time

### **Where?**

Venue

### **Who can attend?**

***Everyone*** who works at [organisation]

### **How to register?**

Contact [**champion**] for a registration form

### ***The Workshop will focus on these areas:***

- Bike handling techniques
- Traffic skills
- Preventing collisions
- Rules of the road
- Choosing equipment/clothing
- Bike fit
- Dealing with obstacles
- Handling intersections
- Gears







## Bike-to-Work Skills Workshop

**Workshop date(s):** \_\_\_\_\_ **Venue:** \_\_\_\_\_

**Name:** \_\_\_\_\_ **Workplace:** \_\_\_\_\_

**Phone number:** \_\_\_\_\_ **Email:** \_\_\_\_\_

**Please answer the following questions so that we can target the workshop to what you want to learn!**

**Tick below your reason(s) for attending the course (tick all that apply):**

- Improve riding skills
- Help with Physical barriers (eg health issues, injuries)
- Help with psychological barriers (eg fallen off in past)
- Help with fear of traffic
- Had a cycling accident in the past
- Learn what to do at intersections
- Learn how to ride a bike
- Learn how to be safer on the road
- Other (please describe): \_\_\_\_\_

**In the past year how often have you ridden a bicycle?** € weekly € monthly € a few times € not at all

**What kind of cycling do you usually do?** € mostly cycle paths € mountain biking € on-road € mixture

**Are you able to ride with one hand off of the handlebars?** € yes € no

### **The workshop will focus on:**

- bicycle handling techniques
- traffic skills
- how to prevent collisions
- rules of the road
- how to choose equipment and clothing
- route planning

### **What to bring:**

- mechanically sound bicycle (the course will involve bike riding so your bicycle must be in good working condition)
- helmet (of course!)
- bike lock
- brown bag lunch
- bottled water
- snacks for the road
- rain gear or other appropriate clothing for the weather

**Please return this form to:**



**Attendance sheet**

Start date \_\_\_\_\_ Location: \_\_\_\_\_

	Attendees Names	Phone Number	Day 1	Day 2	Day 3
1					
2					
3					
4					
5					
6					
7					
8					
9					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					



## CYCLING CLASS FEEDBACK QUESTIONNAIRE

Please indicate how useful this course has been to you so that we can continue to make change or improvements where needed.

Name (optional) \_\_\_\_\_ Course Venue \_\_\_\_\_

**Question 1** Was the course useful to you? (please circle)

**1**                      **2**                      **3**                      **4**                      **5**  
**Not at all**                                                                                                          **Extremely**  
**useful**                                                                                                          **useful**

**Question 2** What parts of the course were of most interest to you?  
Please tick or add any others

- Basic bike skills and riding safely
- Bicycle to fit the rider
- Knowledge of gears
- Knowledge of brakes
- Controlled riding
- Know your bike
- Helmet information
- Clothing information
- What to take on a ride
- Enthusiasm techniques
- How to fall off
- Road riding Tips
- Road Intersections
- Road Ride Now

**Question 3** Have your riding patterns altered as a result of attending this course? (or do you think they will alter from now on?)

- Yes
- No

**Question 4** How do you rate your instructor? (please circle)

**1**                      **2**                      **3**                      **4**                      **5**  
**poor**                                           **average**                                           **excellent**

**Question 5** How do you rate the venue? (please circle)

**1**                      **2**                      **3**                      **4**                      **5**  
**poor**                                           **average**                                           **excellent**

**Question 6** How did you find out about this course? (tick one or more)

- At my workplace
- Radio/Newspaper
- Council websites
- Bike retailers
- Community Notices (Radio)
- 50+ Newsletter
- Other (please specify) \_\_\_\_\_

**Question 7** Are you interested in organised follow up social rides?

- Yes
- No

If yes, please give contact name, email and/or phone for more information:

\_\_\_\_\_

**Question 8** Do you have any other comments about how we could have improved the course?

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**Thank you for taking the time to complete this questionnaire.**

