



## Cycle Education Program

POSITIVELY MENTOR AND INFLUENCE YOUTH THROUGH  
CYCLE EDUCATION



**NewHope**  
COMMUNITY BIKES

Building community through bicycles.



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Where will your  
bike take you  
today?



Teaching lifelong skills for cycling and road safety across Ontario. A student practices slow speed slalom turns in a parking lot.



Green paint on the road indicates a bike box or lane. Wait in this area to turn at an intersection. Cars must stop behind a green box at an intersection.

# Cycle Safety

*A starting point for road safety across Ontario.*

Everyday in Ontario, people of all ages ride bicycles for recreation, transportation, fitness and some even earn their livelihood on a bike.

Road use between cyclists and motorists is often a contentious issue that can lead to dangerous consequences at the cyclists' expense. Road safety needs to apply to all road users, from smallest to largest and slowest to fastest.

By teaching road safety skills through bicycle education programming, Ride Smart seeks to establish foundational attitudes of road safety at a young age and popularize cycling as a viable means of transportation and recreation.

Anyone who has learned to ride a bike can remember the feeling of freedom, excitement and accomplishment the first time they pedaled without training wheels or a supportive hand.

Ride Smart exists because every child, regardless of socio-economic status, should have the opportunity to learn to ride a bike; an opportunity to feel that freedom and accomplishment that comes with pedaling on your own.

Ride Smart offers a mobile fleet of bikes of all sizes to give an opportunity for kids who don't have their own bike and helmet to learn on a well tuned program bike.

Our cycling education program is designed to minimize barriers to participation. Past experience has taught us that the success of school cycling education is dependent on students bringing their own bikes. However, many students do not always have access to a bike in working condition, or are unable to bring their bike to school because of transportation issues.

***Look for important Highway Traffic Act tips from Constable B.***

To address this problem, the Ride Smart Program has been designed to be completely self contained: we provide the bikes, helmets, instructors, resource materials and even the obstacles needed to set up different scenarios.

A full class-set of new bikes means that each student will use the same bike and helmet for the week. This format makes it very easy, even for teachers with little to no cycling experience, to enrol their class in the program. Teacher time commitment outside of the program is minimal requiring only the collection of registration details prior to the beginning of the program.



Right: Students wait in line for their turn to complete Ride Smart skills





# RIDE SMART VIRTUES

## *Virtue 1 – Perseverance*

Whether it's completing an assignment for school, chores at home, or learning a new bike skill, keep your eyes on the end goal, and cross the finish line. Riding a bike can be a challenge mentally and physically, it requires perseverance to achieve success.

## *Virtue 2 – Respect*

Caring about each other is a building block and a strength of your home, school and your community. Respecting all road users and the rules of the road creates safer roads for all. Respect also means listening to instructions when they are given and following the rules put in place to keep everyone safe.

## *Virtue 3 – Confidence*

What you say and what you do builds trust in others. Are the words you speak followed with positive actions? Learning new skills builds confidence and self-esteem, and sets you up for future success. Practice and perseverance builds confidence in young cyclists.

## *Virtue 4 – Be kind*

Thinking of others and their needs is the foundation for healthy relationships. Be kind on your bike by encouraging others in their successes and helping them overcome their challenges. Whether it's pedaling for the first time, or climbing a big hill; take time to recognize the accomplishments of others.

## *Virtue 5 – Self-Control*

It is important to participate and share your thoughts and feelings with others. When you do so, exercise care that your words or actions do not put others down or make them feel bad. On your bike save the fun tricks and jumps for safe places rather than the streets and sidewalks.



# STAFF/VOLUNTEER ROLES

Divide up volunteer roles and determine who will fill each role prior to the class or group arriving at the bikes. Roles can switch each class or a few times throughout the day.

**Drill explanation and lead** - this person is responsible for managing the group, giving instructions and explaining the learning outcome.

**Drill Demonstrator** - this person will demonstrate the skill while the other staff explains the skill. Help with group management/dynamics and provide constructive criticism to students as they participate in the skills.

**New Learner lead** - this person works one-on-one with students who do not already know how to ride a bike unassisted. Starting with 'scootering' the bike without pedals then graduating to pedals. This person will need to run with students and help them balance.

# RULES

KEEP THE RULES SIMPLE.

STUDENTS:

1. Listen to instructions, they are given for student safety
2. No free-riding, one at a time or in a group as instructed
3. No Skidding - 3 strikes you're out - need to make the bikes last for 1000 + students each year.
4. Helmets must be worn at all times.



A program instructor riding a program bike to demonstrate one of the drills, returns to the group with a peace sign.



# RIDE SMART COMMITMENTS

*Ride Smart is designed to be flexible and scalable to a variety of communities with school and community based options. The following commitments have been created to help ensure quality delivery of the program across the province and to help build partnerships among the cycling community of riders, instructors, shops and cycle clubs.*

## 1. Accessible for all

- Fleet of properly maintained bikes and helmets – available to youth who don't have bikes

## 2. Inclusive of all skill levels

- Teaches learn to ride for the first time
- No pre-existing experience required

## 3. On-site Basic Repairs and safety checks

- ability to do basic repairs – e.g. partnership with local bike shop
- Provide list of community bike shops
- NH can reach out on your behalf

## 4. Comprehensive

- 5 hours of programming
- 1 hr rules of the road, 4 on bike hours

## 5. Qualified Instructors

- Ride Smart training from NHCB
- CAN-Bike Level 4
- CAN-Bike Instructor

## 6. Data collection

- Survey and follow-up

## 7. Safety plan

Program instructors will ensure that an appropriate safety plan is in place. The safety plan should address:

- Traffic control for closed course practice
- Helmet policies
- Bicycle safety checks prior to riding
- Appropriate clothing a footwear
- Proper screening/police checks for volunteers/ program instructors.
- A designated on site first aid certified person
- Concussion protocol
- Emergency contact information for participants and address of the program location clearly on hand in case of emergency.
- Waivers for participants and event day insurance



# Helmet Fitting



## 2-V-1

A properly fitted helmet will protect your brain in case of a fall. A helmet should fit snugly on the head even without the straps done up. Most good quality helmets will have an adjustable dial to help fit the helmet on the head.

Once the helmet is on your head remember the 2-v-1 rule.

## 2 FINGERS

Above the eyebrows



## ‘V’ WHERE STRAPS

Meet under the ears



## 1 FINGER

Between strap and chin



Ontario law requires all cyclists under 18 years of age to wear a helmet.

# Equipment Safety Check



## ABC QUICK CHECK

A quick safety check will ensure that everyone's bike will perform properly for each of the skills. Students can complete the safety check themselves. Begin each instruction session with students completing the safety check on the bike they will be using. This is especially important if different classes are sharing bikes throughout the day.

The ABC Quick Check is easy to remember and an efficient way to check over a bike. It can be used on a bike that has been in storage for months or just locked up for a few hours.

**A** is for Air

Proper tire pressure is important to ensure a bike handles properly and can reduce the likelihood of punctures.

1. Press down firmly with your thumb or the heel of your hand. The tire should feel firm like a basketball.
2. If a pump is available inflate the tire to the pressure written on the side of the tire.

**B** is for brakes and bars

Check your brakes to make sure they will stop the bike quickly when needed.

1. Start with the front brake (Left hand) pull the brake lever and push the bike forward. The wheel should lock up and the back wheel should leave the ground. The brake lever should not be able to touch the handlebars.
2. Pull the rear brake (Right hand), the rear wheel should lock up and slide before the brake lever touches the handlebar. Alternatively, pull the handlebars backwards while pulling the brake lever.
3. Check to make the handlebars are tight, do not move side to side or up and down.
4. Stand in front of the bike and hold the wheel between your knees and try to twist the handlebars side to side.

**C** is for chain and crank

A smooth operating chain will make pedaling easier.

1. The chain should be free of rust and rotate smoothly and without any squeaking excessive noise.
2. Ensure that the crank bearings are tight so that the crank cannot

**Quick tip:** A bicycle tube will normally lose a small amount of air over time, just like a balloon that has been blown up and shrinks over time. Pump your tires at least once a month to keep your tires rolling smoothly.

**Quick tip:** If your bicycle has quick release wheels and seat make sure the lever says "CLOSED" and the wheel is secure. Loose skewers can cause a wheel to fall off!

Air



Brakes



Bars

Chain Crank





*Like the traditional bike rodeo, but with an emphasis on skills development rather than just rewarding those with pre-existing skills.*

**The Ontario Highway Traffic Act defines a bicycle as a vehicle that belongs on the road. Riding on the road means riding with other traffic. This is only safe when all road users follow the same rules of the road.**



**When everyone follows the same rules, actions become more predictable. Drivers can anticipate a cyclist's moves and plan accordingly. You too can anticipate and deal with the actions of drivers.**

**Quick tip:** with groups larger than 10 students, split into two groups and run simultaneous lines. Lines on the left can turn to the left, and those on the right turn to the right when completing their drill. (See photo below)





*Start with the basics*

# Skill Modules



## LEVEL 1

The starting point for safe, confident cycling is straight line riding (SLR). A cyclist that rides in a straight line on the road is more predictable for other road users. Being able to ride in a straight line is essential for novice and skilled riders alike. For off road cycling this skill helps to avoid obstacles and choose the right line through technical riding sections.

### SKILL 1: STRAIGHT LINE RIDING

**Principles:** Maneuverable and predictable

**Setup:** If a long painted straight line is available in parking lot have participants ride as close to the line as possible, pretending it a balance beam. If no line is available set up small soccer pylons or tennis balls cut in half as a target at the other end.

**Coaching Tip:** Keep shoulders back, focus on having weight over the back wheel, this improves stability. Have students pick a point in the distance to look at rather than looking down.

#### Skill checklist

- ✓ Ride unassisted down to the end of the line and then come back
- ✓ Start unassisted, control bike and make a turn

Above: A student prepares for their turn to demonstrate their ability to ride in a straight line.



*Bicycles must have working brakes and must obey stop signs and other road rules.*

### SKILL 2: CONTROLLED BRAKING

**Principles:** Maneuverable and Predictable

**Setup:** Utilize the same set up as the SLR drill, with a straight painted line or pylon at opposite end. Familiarize students with the function of the brakes. Left hand controls the front brake and right hand controls the rear brake. Braking is best done with smooth operation of both brake levers.

Students start riding in a straight line, and then come to a smooth controlled stop at the stop line or marker at the end. No skidding or rear wheel leaving the ground. The skill finishes with the student completely stopped with both feet on the ground.

**Coaching Tip:** Encourage students to use both brakes together, watch for unbalanced braking and correct so brakes are balanced.

#### Skill checklist

- ✓ Student able to bring bike to a controlled, gradual stop.
- ✓ Braking involves both hands and balanced application of brakes
- ✓ No skidding or rear wheel lifting
- ✓ Student comes to complete stop and puts feet down.





## SKILL 3: SHOULDER CHECK

**Principles:** Maneuverable and predictable

**Setup:** Utilize the same set up as the SLR drill, with a straight painted line or pylon at opposite end. Prior to starting the drill have students practice looking over LEFT shoulder while sitting on bike.

**Coaching Tip:** Build upon the SLR skills, continue with same tips. Riders should be able to maintain straight line riding while looking over their shoulder with both hands on the handlebar. Practice turning chin over LEFT shoulder.

### Skill checklist

- ✓ Student able to ride in a straight line while completing a shoulder check.
- ✓ Instructor to stand on start line or 10-20m from start line and hold up a random number of fingers on one hand. Have riders call out the number of fingers they see when performing their shoulder check.
- ✓ Rider is able to continue pedaling while performing shoulder check.

Below: Having the student call out the number of fingers they see ensures they are doing a good shoulder check.



**Cyclists must ride on the right side of the road, that means traffic will predominantly be on the LEFT side - Shoulder checks are always done over the LEFT shoulder.**



Right: A student completes a shoulder check and calls out the number of fingers held up by the instructor.

## SKILL GAME

*FOLLOW THE LEADER to practice one handed riding*

**Principles:** Manouverable and bicycle handling

**Setup:** Have the two lines file in behind eachother in a big long line. Riders should stay 2 bike lengths a part and not pass other cyclists. The leader at the front of the line models a one handed action on the bike. Everyone riding behind the leader copies this action. Alternate hands so that students become comfortable with either hand off of the handlebars.

**Example:** tap your helmet with one hand, waving with a right or left hand. Pretending to swim with one arm, be creative!

**Coaching Tip:** If student cannot ride with one hand encourage them to remove one hand at a time for short periods of time. Encourage student to keep weight over the rear (stable) wheel rather than leaning forward. This will make the bike more stable.





RIGHT



LEFT



STOP



**Quick tip:** Use your right arm fully extended to signal a right hand turn. This clearly communicates to drivers which direction you want to go. The alternate right hand turn signal (upward extended left hand photo 2) can sometimes be confused for a friendly 'wave' rather than a turn signal.



## SKILL 4: HAND SIGNALS

**Principles:** Communicate, be predictable

**Setup:** Continue with the same setup as the SLR and Shoulder Check skill. Have students practice the three hand signals while sitting on their bike in the line.

- Students take turns riding while signaling their turn. They then turn at the turn around point (Riders on the right turn right, on the left turn left and signal accordingly)
- Hand signal should last 3-5 seconds
- Return hand to handlebar before starting turn
- Students return to the back of the opposite line to practice signaling the other direction.-

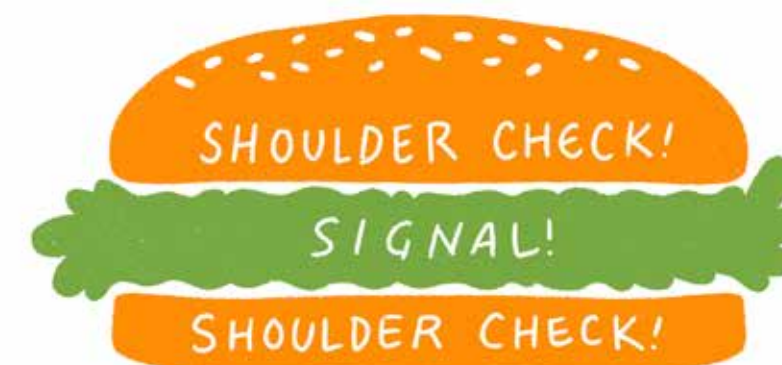
**Coaching Tip:** Keep shoulders back, focus on having weight over the back wheel, this improves stability. Have students pick a point in the distance to look at rather than looking down.

### Skill checklist

- ✓ Ride unassisted down to the end of the line and then come back
- ✓ Start unassisted, control bike and continue to ride in a straight line while performing hand signal
- ✓ Return hand to handlebar before turning.



**Quick tip:** SKILL 5 is also known as the "Shoulder Check Sandwich", a fun way to remember to complete two shoulder checks each time to make sure the coast is clear. Using the sandwich analogy helps students remember the second shoulder check.



## SKILL 5: HAND SIGNALS with SHOULDER CHECKS

**Principles:** Communicate, be predictable

**Setup:** Continue with the same setup as the SLR and Shoulder Check skill.

Have students repeat the phrase "Shoulder Check, Signal, Shoulder Check, Turn" to help remember the four steps to this skill.

- Begin riding, once balanced and stable, perform the first shoulder check over left shoulder.
- Signal intended turning direction (students in right line will signal and turn right, students in left line will signal and turn left, alternate by returning to the back of the opposite line.
- Return hands to handlebar and do a SECOND shoulder check (left shoulder).

- Complete turn at turn around point direction that was signaled.

### Coaching Tip:

- To make this skill more challenging have students look back to instructor to determine which way to signal and turn. Similar to the Shoulder Check - Fingers game
- Students will have to judge where other student from the line is and turn when safe to do so.

### Skill checklist

- ✓ Complete the "shoulder check sandwich" before making their turn.





## SKILL 6: DECISION TURN

**Principles:** Communicate, be predictable

**Setup:** Continue with the same setup as the SLR and Shoulder Check skill.

- Build upon the 'Shoulder Check Sandwich'
- Students use shoulder check to determine which way to turn based on the instructors direction similar to skill 3.
- Student signals the direction that the instructor points and then turns that way after completing the second shoulder check and returning their hands to the handlebars.

**Coaching Tip:**

- Students may have difficulty determining whether they are supposed to turn left or right when looking back. Simplify the instruction,

example: encourage student to notice whether the instructor is pointing towards the school or the playground, and copy this direction.

**Skill checklist**

- ✓ Complete the "shoulder check sandwich" before making their turn
- ✓ Shoulder check is deliberate and useful (E.g. Skill 3 with fingers)

## SKILL 7: SLOW SPEED SLALOM

**Principles:** Maneuverability, balance, confidence

**Setup:** Set up soccer cones or tennis balls cut in half. Spacing should be 6-7 paces wide and 6-7 spaces in between (See diagram right). Drawing in arrows with sidewalk chalk will help students visualize the path they need to follow.

Goal is to have students navigate their front wheel around the marker, if the rear wheel rolls over or inside the mark that is okay. Slow speed balance is the focus of this activity.

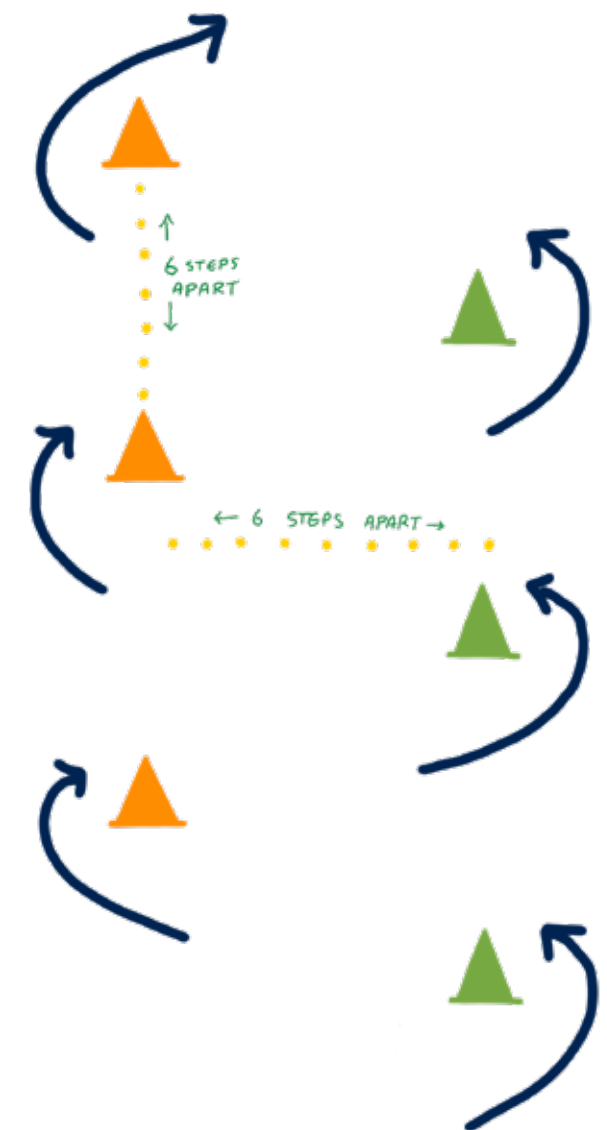
- Ride towards first mark, point inside knee e.g. motorcycle racer. Knee should be outside of the elbow/handlebar this will shift balance to the inside of the corner
- Once the first mark is reached, look towards the next one, turning the head and focus will help keep the balance in the intended direction.
- Always look to the next turn not down at current mark, anticipating where they will be going. Like a slalom skier, always looking to the next gate.

**Coaching Tip:**

- Wide knees, and pointing the inside knee around the corner will help with balance. This skill should be practiced at a slow walking pace.

**Skill checklist**

- ✓ Student able to navigate both left and right turns at a slow speed
- ✓ Inside knee is pointed inwards to shift balance to the direction of the turn.
- ✓ Head and eyes are anticipating the next turn and not looking down at the current mark







## LEVEL 2

### SKILL 8: EMERGENCY BRAKING

**Principles:** Maneuverability, quick reaction, control, body positioning

**Setup:** Continue with the same setup as SLR

On any vehicle the front brakes have the majority of the stopping power, as much as 70%. This is why cars and motorcycles will have larger brake discs on the front wheels than the back. As the driver/rider pushes the brakes the weight of the car shifts forwards meaning more brake force is needed at the front.

Improper brake use can be demonstrated with a 'stoppie' (front wheel endo) or a controlled display of going over the bars - See module videos for example. This skill is best taught in two separate steps to get body positioning correct.

#### Step 1: Weight shift without braking

This body positioning will help counteract the forces that are working towards throwing the rider over the handlebars.

- Ride forward and accelerate to a jogging pace.
- Flatten pedals (pedals at 3:00 and 9:00 position on a clock)
- Stand up with bottom off of the seat.
- Bend knees and shift weight over the back wheel, pushing handlebars slightly forward at the same time. Bottom of rider should be over rear axle. (No braking yet)
- Return bottom to seat and return to the back of the line.

#### Coaching Tip:

- Student levels pedals to ensure solid footing and safe weight shift
- Hips shift over back wheel and then back over the seat
- Student maintains control while weight is over back wheel



#### Step 2: Emergency braking

- Add brakes gradually while performing the weight shift so that student comes to a complete stop while weight is over back wheel.
- Utilize braking technique from Skill 2.
- Weight shift becomes more important as the speed increases
- Increase urgency in braking force while maintaining control and not skidding tires or lifting rear wheel.
- As competency grows, upgrade the skill to braking only when the instructor yells 'STOP', simulating an unexpected emergency situation

#### Coaching Tip:

- If rear wheel skids recommend increasing front brake pressure
- If rear wheel lifts recommend focusing on the weight shift.
- Rotate heels of feet below the front of the foot to apply more force down into the bike.
- Vary when the students are told to stop depending when they are up to speed.
- Students continue pedaling until told to stop, no coasting to anticipate 'STOP'.

**Quick tip:** Too much front brake will almost certainly catapult the rider over the handlebars. Practice the weight shift first and gradually add braking force as competency grows. The rider anticipates the momentum shift by forcing their weight backwards before applying brakes.

#### Skill Checklist

- ✓ Weight and body position shifts back over back wheel
- ✓ Pedals flat
- ✓ Both brakes used together for controlled stop
- ✓ No skidding or rear wheel leaving the ground





## SKILL 9: HIGH SPEED CORNERING

**Principles:** Control and emergency manouvers

**Setup:** Similar to the slalom setup, set up cones/markers with a 6-10 stride radius. Place outside cones to give a 2-3 stride path width.

- Begin riding towards the cornering section, building speed on approach.
- Elevate inside pedal (left pedal for a left turn, right pedal for right turn).
- Start turn by pointing knee and leaning bike towards the inside of the turn
- Coast through the turn while: Rotating head to look for exit of the corner, and pushing down and away with inside hand (counter steer)
- Alternate turning directions by returning to the back of the opposite line.

**Coaching Tip:**

- Remind students to keep their “Inside Pedal - High in the Sky”
- Have students increase speed as their confidence grows.
- A well executed high speed turn will be *heard* as tires will scrape and deform to grip the asphalt.

**Skill checklist**

- ✓ Maintain speed through the corner
- ✓ Inside knee pointed out
- ✓ Bike is leaned over



## SKILL 10: OPTIONAL ADVANCED RIDING - OBSTACLES

Ride Smart uses a set of 3 different built obstacles to reward students for their skill development and offer new challenges. The obstacles feature three rollers that can be used to teach uphill and downhill technique, and how to pump knees to gain momentum, a small teeter totter and a ground level skinny that has a narrow section and small log obstacles at the end.

**Principles:** Control and a reward for skill development.

**Setup:** Start with one roller in front of each ride line. Have a spotter at the ramp to improve rider confidence and make sure that students stsy in the middle of the ramp.

**Coaching Tip:**

- Students gain speed and coast over the roller
- Level pedals at crest of hill
- Shift weight downwards on the backside of the roller to “pump” just like on a swing
- As confidence grows add more rollers in a row

**Skill checklist**

- ✓ Student able to ride in a straight line and ride over the roller.







## SKILL 11: OPTIONAL UPHILL/DOWNHILL TECHNIQUE

**Principles:** Control and body positioning

**Setup:** Find a place with some elevation change e.g. a small grass hill. Introduce the use of gears prior to riding up the hill. Lower numbered gears, easier, higher number harder to pedal.

**Coaching Tip:**

- Begin shifting gears before the start of the hill and shift to easier gear.
- Maintain seated position and keep cadence high while climbing the hill.
- If needing to shift more while climbing the hill, lighten pedal force to make it easier for derailleur to shift the chain.

**Skill checklist**

- ✓ Student able to ride in a straight line and ride over the roller.
- ✓ Level pedals at the crest of the hill

## SKILL GAME

### *SLOWEST BICYCLE RACE to practice balance*

**Principles:** Manouverable, bicycle handling

**Setup:** Set up on the longest section of the pavement. Students line up side by side spread out along the 'start' line. The goal is to be the last rider to cross the 'finish' line marked at the other side of the riding area.

- If student has to put a foot down they must stop at that point.
- If a student runs into another student, they must stop at that point, the other student can have a free reset.
- Rear wheel must always be pointed towards the finish line, front wheel can be turned side to side for balance.
- No long serpentine routes allowed.

**Coaching Tip:** Encourage students to experiment with ways to improve balance. Some techniques that may help:

- moving hips side to side
- twisting handlebars to help maintain balance
- using brakes to control speed
- keeping eyes focused forwards.





## SKILL GAME

### *ELIMINATION to practice balance and handling*

**Principles:** Manouverable, bicycle handling

**Setup:** Set up on a section of pavement that has markings if available such as a basketball 'key' or four square court. Split students in to groups that can fit within 'playing area' . If no painted lines exist have students define an area with bikes or use pylons.

**Goal:** Be the last one riding in the playing area

- Students start by all riding at the same time in the same direction. Instructor counts down from 10 to start the game and announces "Game On".
- Once the game starts students must keep their feet off the ground and not go outside of the playing area.
- Putting a foot down means the rider is eliminated and must find a safe way to exit the playing area.
- If a student runs into another student, they must stop at that point, the other student can have a free reset.
- Students can slow their riding to cause others behind them to slow down or wait. Students may also ride in a tighter circle and 'edge out' other riders as long as there is no contact.

