



“I Can Bike!”

Cycling Educator’s Guide:

Cycling Skills for Students with Complex Barriers
Lesson Plans for the Ontario Curriculum, December 2021



Ontario
Trillium
Foundation



Fondation
Trillium
de l'Ontario

THIS PAGE LEFT INTENTIONALLY BLANK

Contents

1. Purpose of this Guide	1
2. What's Different: Teaching Cycling Skills in Special Ed. Classes.....	1
3. Equipment and Resources.....	4
4. Lesson Plan Summaries	4
5. Sample Lesson Scripts	10
6. Acknowledgments.....	15
7. Appendices.....	16
Appendix 1. Curriculum Links and Expectations	16
Appendix 2. Pictorial Calendar Sample:.....	17
Appendix 3. Bicycling Skills Assessment	23
Appendix 4. Resources and References.....	24

1. Purpose of this Guide

This guide is intended for community Cycling Educators who will be working with students with complex barriers, including Mild Intellectual Disability, Autism and Learning Disabilities. The guide provides lessons to help these students learn to ride a bicycle, carry out safety checks on a bicycle, and learn some rules of the road, thereby fostering greater levels of physical activity and social connectedness.

In the sample school's 2017 Student Census, 50% of students report that they never or rarely exercise. 60% have never participated in a sports program outside of school; 64% have never participated in community recreation activities. 46% say they never or almost never spend time with friends.

Bicycle riding is a popular leisure activity for children and youth, but people with disabilities often do not have the opportunity to learn. This guide aims to demonstrate the transformative power of learn-to-ride classes facilitated by caring adults.

2. What's Different: Teaching Cycling Skills in Special Ed. Classes

This guide requires that Cycling Educators be familiar with teaching content from the 5 units (outlined in Part 4. below) in elementary and high school settings. This section outlines some "best practices" for teaching cycling safety in a special-education context. The practices listed below were developed in consultation with Cycling Educators, teachers and students at a pilot Special Education School in the Toronto District School Board (TDSB) and by reviewing relevant research (Appendix 4).

Plan and coordinate closely with the teachers:

Educators need to be always mindful of student safety. The program needs to be planned in close coordination with the teachers to ensure safety-related supports are in place prior to starting the program. For example, Educators and teachers need to:

- Determine the student-teacher ratio: ensure the program has a ratio of 2 or 3 (maximum) students to 1 teacher/educator.
- Determine length of program: this guide suggests 5 classes of about 75 minutes each. Educators may need less time for lessons 1 & 2 and more time for lessons 3, 4 & 5. More time and a slower pace may be needed to cover material. If time permits, an additional class could be spent practicing riding skills.
 - It should be noted that lessons 4 and 5 went beyond 75 minutes because these have more content. During Covid 19, this is possible due to the doubling of class time. When classes are 75-minutes, try to find additional time for lessons 4 and 5 (i.e., during a lunch time "bike club").
- Review the lesson content and timing.
- Determine how many classes and students will participate and how many bicycles/helmets are needed (see below, section 3. *Equipment*).
- Determine where the bikes will be stored and locked (and who keeps the key).
- Determine where instruction will take place and where safe, secure riding space is available.

*"The team may need to navigate administration and rules to find safe secure riding spaces."
- School Administrator*

- Once the above is completed: provide the teacher with the “Parent Package” including TDSB Excursion Forms (and, if needed Media Release Forms) well in advance of the first class.
- The teacher will advise on what level the students are at, any unique needs or barriers (e.g., non-verbal, eye contact, physical disability).
- Ask about managing the class and setting expectations. (i.e., if/when you break the class into groups).
- It helps to have staff that are cyclists (in addition to the Cycling Educators).
- Determine if administrators want to promote awareness of the program with media or Trustee.
- Expect some surprises, stay flexible, remain calm and work with the teachers.
- If teachers request some cycling-related worksheets for students, see Appendix 4.
- Discuss student recognition awards from teachers (to be presented sometime after lesson 5).

Riding space & class setting

Depending on weather and facilities available, Educators may use a combination of indoor and outdoor settings. Pavement that is smooth and wide works well, ideally with painted lines, like a tennis or BB court. Try a variety of surfaces (e.g., grass, dirt paths, pavement) and some terrain with a gentle slope is helpful for learn-to-ride. You may need to be creative to find space.

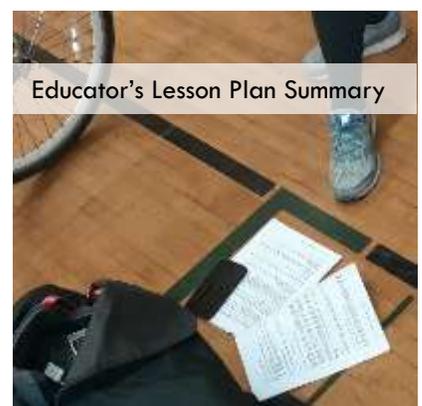
- A gymnasium can work or even a cafeteria if organized to prevent conflicts.
- Make sure riding space is relatively secure to prevent students from riding away. Station teachers at any unsecured exits.
- Seeing all the bicycles can be very distracting while teaching (e.g., helmet fit). Don't put all the bikes in view until needed or, orient students away from the bikes.
- Set up the group in a small semi-circle when possible so it's easier to communicate.
- Consider access to washrooms and water.



Intimate bench arrangement in a gym



Students in a semi-circle around Educators



Educator's Lesson Plan Summary

Lesson planning:

Have a “Lesson Plan Summary” page visible on the floor with any reminders (e.g., start/finish times). To help students understand what will be happening and when, use a Pictorial Calendar (e.g., Appendix 2).

- Try to stay flexible with the lesson plan. Sometimes things won't go quite as planned.
- Take time at the end of class to reflect on and make note of what worked and what didn't. This will help plan the next class and may be used in any future updates of this guide.

Orient the students:

Build mutual trust, respect and a level of comfort for students. Establish a regular pattern and some predictability by discussing for example (using the pictorial calendar), “What did we do last week? What lesson are we on today? What are we doing next class?”



- Introductions: wear a name tag and obtain a list of student names if possible. Tell them a little about you and why you cycle.
- Discuss the power of mobility, using transit or a bike, exercise, recreation that it is fun (and cool).
- Review at the beginning and end – *What did we learn last/this week?*

Clarify expectations

When they see the bicycles, students really want to ride! They need to know that riding will come but first they need to prepare. The classes are new to the students and can be destabilizing. Setting out expectations and routine is important to put students at ease.

- Review the Pictorial Calendar and explain, *Yes we will ride but first we will get prepared so there are no surprises.* Share examples of not being prepared – no umbrella in rainstorm, no basketball at a game, etc.
- Explain, *We have a responsibility to look after the bikes & helmets. Then, we can have fun riding.*
- Assessment of progress can be documented using the chart in Appendix 4. if there is an Educator dedicated to this task. Generally, most students progress with the lesson plans. For students that may need a separate “learn-to-ride” stream, see Lesson 3.

“The bonding they had through the shared experience of riding, the freedom they found in the movement of riding, the break from their normal school routine, the responsibility of caring for the equipment and helping each other be safe...those are the kinds of things that will stay with them.”
Debra - Cycling Educator

Maintain focus and attention:

Students with barriers to learning may have difficulty staying focussed for extended periods. Conventional teaching methods may result in students getting up, talking, etc. To help students focus:

- Be consistent and do things in the same general way every lesson.
- Keep lessons engaging and hands-on .
- Keep verbal instructions short, show by doing and move students to the activities as soon as possible
- Use plain language. Humour may not work. Don't use expressions or analogies.

“Educators need to think carefully about what they go over and how . . . even the words you choose” - Special Ed. Teacher

- Break things down into small steps.
- Change activity frequently – students can get bored fast.
- Assess verbally (ask them things).
- Educators have less time to think or plan spontaneously. Be organized and avoid unstructured breaks between activities. If class is easily distracted, activities can be tightly controlled, e.g., “One by one we will . . .”
- Repeat and review frequently – especially at the beginning and end of class.
- The teacher(s) will advise or lead on issues related to class control and engagement.
- Provide opportunities for varying abilities. E.g., “Raise your hand if . . .” or, for nonverbal students, “Poke me when I say the correct name of this part.”
- Include a game where possible and get students involved (e.g., for “Simon Says” when student crosses the line, they become callers).
- Show what we are doing then do it.
- Try, “if – then” statements to show sequence and progress. *If we learn to do this . . . then, we can do this . . .*
- Each student is a complex individual with unique learning preferences and abilities, and teaching is best one-on-one (when possible).



Student and Educator leading “Simon Says”

3. Equipment and Resources

- Bicycles: Ideally, step-through frames (sm., med., and lg.). 3 speeds at most. Bike should have substantial, easy to use kickstands, swept back handlebars for an upright riding position. If possible, provide an adult tricycle and a smaller bike (20/24” wheel size). Tune them up.
- Print out a Pictorial Calendar, create parts labels for lessons 2 and 3.
- Tools to adjust seat height (Allen key or wrench if needed)
- Pump for Schrader and Presta valves (depends on bicycles)
- Helmets (sm., med. & lg): some with adjusting wheels, extra padding.
- Gloves if any students are sensitive to touch/don’t like getting dirty.
- Refer also to Lesson Plan “Equipment” section. E.g., cones and signs are needed in later lessons.



Student on an adult tricycle

4. Lesson Plan Summaries

The following one-page summaries can be printed and used during the lesson as an at-a-glance reminder of the lesson content and sequence. *Sample Lesson Scripts* are in section 5 below. These are abbreviated scripts based on more detailed scripts which are available through CultureLink.

Lesson #1: Helmet Fit & Bike Fit

Lesson #2: ABC Checks; Stationary & Handling Skills

Lesson #3: Balance & Coast; Start, Pedal, Steer, Brake

Lesson #4: Straight Line Riding, Brake Control; Shoulder Check & Signal 1

Lesson #5: Shoulder Check & Signal 2; Turning; Controlled Group Ride

Lesson #1 – Helmet Fit & Bike Fit

<p>Preparation:</p> <ul style="list-style-type: none"> • Printed Pictorial Calendar (Appendix 2) • Make and print bike part labels (optional game) • Separate helmets by size • Use one bike to show bike fit • Line up student bikes according to size 	<p>Equipment:</p> <ul style="list-style-type: none"> • Helmets in S, M, and L sizes; helmet pads • Bicycles, ideally with step-through frames, in various sizes • Allen keys for adjusting seat height
<ol style="list-style-type: none"> 1. Introductions to Each Other and to Cycling Gather people in to focus and share. <i>Prompt: Let's share an experience with bicycles. Review a "Pictorial Calendar". Prompt: Who can tell us what today's class is on? In what class do we start to ride the bikes?</i> 2. Circle & Share for Helmet Fit (15 minutes) Students share what they know about concussions. <i>Prompts: concussion, helmet.</i> 3. Helmet Fit (15 minutes) First, demonstrate Helmet Fit. Students get a helmet and practice fitting. 4. GAME Option: Students put labels on the correct bike part. 5. Bike Fit: Circle & Share (10 minutes) Gather people in to focus and share (using one bike). <i>Prompts: why is fit important? Does this bike fit me?</i> 6. Bike Fit (20 minutes) Demonstration of Bike Fit by teacher using one bike as a focus. 7. Hands-on Bike Fit (15 minutes) Students find an appropriate bike. Educators adjust seat height (students may assist). 8. Consolidation (15 minutes) Gather in and (as a review) each tells one thing they learned today before being dismissed from class. Students help return all equipment. 	
<p>Assessment and Evaluation: Bicycling Skills Assessment--Helmet Fit Bicycling Skills Assessment--Bike Fit</p>	<p>Best Practices: Refer to "What's Different" section above. Minimize equipment in view to keep group focused.</p>

Lesson #2 – ABC Checks, Stationary & Handling Skills

<p>Preparation:</p> <ul style="list-style-type: none"> • See lesson #1 preparation of helmets & bikes. • Print parts labels (educator to select). • Important: Educator must review <i>Young Cyclist's Guide</i> (Ontario Ministry of Transportation). http://www.mto.gov.on.ca/english/safety/pdfs/young-cyclist-guide.pdf 	<p>Equipment:</p> <ul style="list-style-type: none"> • Helmets in S, M, & L sizes; helmet pads • Bicycles, ideally with step-through frames, in various sizes • Allen keys for adjusting seat height • Bicycle pumps
<p>1. Introducing A, B, C, Check (10 minutes) Gather people in to focus and share. Review Pictorial Calendar. Review Helmet & Bike Fit. <i>Prompt: Last class we learned...? Why safety checks? Briefly explain ABC Safety check. Option: Using printed labels ask students to place them on parts.</i></p> <p> “A” Show & Tell then Hands-on (10 minutes)</p> <ul style="list-style-type: none"> • First, demonstrate “A” Air. • Then students PAIR UP and stand next to an appropriately sized bike and practice safety checks for “A”. <p> “B” Show and Tell then Hands-on (10 minutes)</p> <ul style="list-style-type: none"> • First, demonstrate “B” Brakes, Bars, Bell. • Then students practice safety checks for “B”. <p> “C” Show & Tell then Hands-on (10 minutes)</p> <ul style="list-style-type: none"> • First, demonstrate “C” Chain, Crank & Clothing. • Then Students practice safety checks for “C”. <p>2. Kick stand, Pedal Manipulation and Braking Skills (15 minutes)</p> <ul style="list-style-type: none"> • Students each move to a bike, check fit. • Demonstrate kickstand and pedal manipulation. Students practice kickstand and pedal manipulation (5). • Do kickstand test (5). • Demonstrate smooth braking walking beside bike. Students practice (5). <p>3. GAME: “Simon Says Go, Slow and Stop (10 minutes)</p> <p>4. Consolidation (10 minutes) Gather in and (as a review) each tells one thing they learned today before being dismissed from class. Students help return all equipment.</p>	
<p>Assessment and Evaluation: Bicycling Skills Assessment—ABC Checks. Stationary & Handling Skills.</p>	<p>Best Practices: Refer to “What’s Different” section above. If the group isn’t too large, the teacher can stand in front of a line of students and bikes, and point to each student in turn, asking them to perform the check.</p>

Lesson #3 – Brake, Balance & Coast; Start, Pedal, Steer

<p>Preparation:</p> <ul style="list-style-type: none"> • See lesson #1 preparation of helmets & bikes. • Use low profile cones to mark off intervals about 4-5 meters apart or use existing lines on a court. 	<p>Equipment:</p> <ul style="list-style-type: none"> • Helmets & bicycles as per earlier lessons. • Allen keys for adjusting seat height. Bicycle pumps. • Low profile cones.
<p>1. Introducing Brake, Balance & Coast then Start, Pedal Steer (15 minutes) Gather people in. Review Pictorial Calendar. Review Helmet Fit, Bike Fit. Prompt: <i>Last class we learned...?</i> Review Stationary & Handling Skills. Prompt: <i>Who can tell us what today's class is on?</i> GAME: Review ABC Check using Simon Says.</p> <p>2. Smooth Brake (10 minutes)</p> <ul style="list-style-type: none"> • First, demonstrate moving the bike forward and backwards by stepping (not pedaling) while sitting in the saddle. Review the smooth two-hand stop. • Students practice the above demonstration. <p>3. Balance & Coast (10 minutes)</p> <ul style="list-style-type: none"> • First, demonstrate coasting in a straight line with feet just off the ground, and again with both feet on the pedals; coming to a smooth two-hand brake stop. • Students practice the above demonstration. • <i>Note: students who are unable to coast for at least two meters with both feet on the pedals will be split off and become the "Learn to Ride" group.</i> • GAME: Glide Race: See Sample Script. <p>4. Power Start (15 minutes)</p> <ul style="list-style-type: none"> • First, demonstrate the power start (review pedal manipulation). • Then students practice the above demonstration. • GAME: Do a glide race with Power Start. <p>5. Start, Pedal, Steer, Brake (15 minutes)</p> <ul style="list-style-type: none"> • Demonstration power start, pedal, steer, brake. (5) • Then students practice the above demonstration. (10) <p>6. Consolidation (10 minutes) Gather in and (as a review) each tells one thing they learned today before being dismissed from class. Students help return all equipment.</p>	
<p>Assessment and Evaluation: Bicycling Skills Assessment: Balance & Coast Bicycling Skills Assessment: Start, Pedal, Steer, Brake</p>	<p>Best Practices: Refer to "What's Different" section above. Teach on a basketball or tennis court and use the existing lines to organize the activity. Students can perform activities one at a time or as a group, depending on group size and available time. Keep talking segments short and move students to the activities as soon as possible.</p>

Lesson #4 Straight-Line Riding, Brake Control; Shoulder Check & Signal 1

<p>Preparation:</p> <ul style="list-style-type: none"> • See lesson #1 preparation of helmets & bikes. • Use low profile cones to mark off two lanes and 3 stopping line intervals of about 5 meters. • This class could be extended beyond 75 minutes (if time is available). 	<p>Equipment:</p> <ul style="list-style-type: none"> • Helmets & bicycles as per earlier lessons. • Allen keys for adjusting seat height. Bicycle pumps. • Low profile cones. • Road Signs.
<p>1. Introducing Straight-Line Riding, Brake Control; Shoulder Check & Signal 1 (15 minutes)</p> <ul style="list-style-type: none"> • Gather people in to focus and share. Prompt: <i>Last class we learned . . .</i> • Review Lesson Calendar. Prompt: <i>Who can tell us what today's class is on?</i> • Review Helmet Fit. • Review Bike Fit, ABC Check (Simon Says), Stationary & Handling Skills. • Review the Power Start and Smooth Braking. <p>2. Straight-line Riding and Brake Control (20 minutes)</p> <ul style="list-style-type: none"> • First, demonstrate power start, riding in a straight line, coming to a smooth two-hand stop, resetting to power position. (5) • Then students practice the above demonstration. (5) • GAME: Slow Race. (10) <p>3. Stationary Shoulder Check (15 minutes)</p> <ul style="list-style-type: none"> • First, demonstrate stationary shoulder check. (5) • Then students practice above demonstration. (10) <p>4. Signaling While Stationary (15 minutes)</p> <ul style="list-style-type: none"> • First, demonstrate signaling while stationary. (5) • Then students practice above demonstration. (10) <p>5. Consolidation (10 minutes)</p> <p>Optional if time allows: gather in and (as a review) each tells one thing they learned today before being dismissed from class. Students help return equipment.</p>	
<p>Assessment and Evaluation:</p> <p>Bicycling Skills Assessment—Straight-line riding; brake control. Bicycling Skills Assessment—Shoulder Check & Signal 1.</p>	<p>Best Practices:</p> <p>Refer to “What’s Different” section above.</p>

Lesson #5 Shoulder Check & Signal 2; Turning; Controlled Group Ride

<p>Preparation:</p> <ul style="list-style-type: none"> • See lesson #1 preparation of helmets & bikes. • Use low profile cones to mark off two lanes and 3 stopping line intervals of about 5 meters . • Map out a course on a large playground for Group Ride. • This class could be extended beyond 75 minutes (if time is available). 	<p>Equipment:</p> <ul style="list-style-type: none"> • Helmets & bicycles as per earlier lessons. • Allen keys for adjusting seat height. Bicycle pumps. • Low profile cones. • Road Signs.
<p>1. Introducing Shoulder Check & Signal 2; Turning; Controlled Group Ride (15 minutes)</p> <ul style="list-style-type: none"> • Gather people in to focus and share. <i>Prompt: Last class we learned . . .</i> • Review Lesson Calendar. <i>Prompt: Who can tell us what today’s class is on?</i> • Review Helmet Fit, Bike Fit, ABC Check, Stationary & Handling Skills. Review the power start and smooth braking. <p>2. Shoulder Checking and Signaling in Motion (20 minutes)</p> <ul style="list-style-type: none"> • First, demonstrate shoulder checking and signaling in motion. (5) • Then students practice the above demonstration while riding. (15) <p>3. Turning (20 minutes)</p> <ul style="list-style-type: none"> • First, demonstrate turning. (5) • Then students practice turning. (15) <p>4. Controlled group Ride (15 minutes)</p> <ul style="list-style-type: none"> • First, demonstrate the controlled group ride. (5) • Then, students practice a controlled group ride. (10) <p>5. Consolidation (10 minutes)</p> <p>Optional if time allows, gather in and (as a review) each tells one thing they learned today before being dismissed from class. Students help return all equipment.</p> <p>Plan for student recognition/awards at future date.</p>	
<p>Assessment and Evaluation:</p> <p>Bicycling Skills Assessment—Shoulder Check & Signal 2.</p> <p>Bicycling Skills Assessment—Turning.</p> <p>Bicycling Skills Assessment—Controlled Group Ride.</p>	<p>Best Practices:</p> <p>Refer to “What’s Different” section above.</p>

5. Sample Lesson Scripts

Sample Script Lesson #1 – Helmet Fit & Bike Fit

Overview and Introductions:

Share names. Go over the entire lesson plan and help students understand that they will ride after we learn some basic safety. Prompts: *Why is it helpful to have some skills and safety lessons before riding? What lesson do we ride in? Can someone put the yellow star above today's lesson?*

Clarify: *cycling is not dangerous*

especially if you prepare. Have you ever had something go wrong on a bicycle? How can we prepare?



Concussion Discussion: Prompts: *What causes one? What is it? What are some symptoms? If a person does not fall unconscious, can their brain be suffering from a concussion? Yes! What should you do if you suffer a concussion? Tell a teacher, tell your parent/guardians, see a doctor. The brain needs to rest physically and mentally to recover. Helmets reduce the chance of concussion if we fall.*

Helmet Fit Demonstration: Prompts: *What is the law in Ontario for cyclists younger than 18 years? Demonstrate “2-V-1” helmet fit. Could put helmet on loose and backward – Look at my helmet, anything wrong here? Fit it properly, lean over, shake head to demonstrate snug fit.*

Helmet Fit Hands-on: One by one, students get a helmet. Point out sizes, front & back. Together do 2-V-1. Adjusters to the back. Students can check each other's helmets and help each other with adjustments or call the teacher to help. Lean over to test.

GAME Option: Use bike parts labels & tape. *Tell me where the brake levers are. Put the label on (etc.).*

Bike Fit Demonstration: Prompts: *Are all bikes the same? Bikes come in different sizes. What if bike doesn't fit me? What does it feel like? What might happen? Hard to pedal, get tired, not comfortable, fall over, hard to control. Could demonstrate poor bike fit - What's wrong here?*

Note (for straight top tube) show stand-over height needs space at top tube. Adjust seat to about hip height (use Allen key, quick release or wrench as required). Sit on seat.

Bike Fit Hands-on:

One by one students choose a bike that matches their height. Educator can ask, *Is it too big/small? How is the seat height? Try it out. Can I raise/lower it for you?* Educator can also assist student so they learn to adjust seat. *Can you reach the bars and brakes comfortably? If needed suggest a better fitting bike – Would you like to try this one?*

Ideally the tip toes of both feet touch the ground for the best position for control and knee protection. But, if student wants the most control of the bike, adjust the seat so that both feet are flat on the ground.

Sample Script Lesson #2: ABC Checks, Stationary & Handling Skills

Overview and Review: *What did we learn last class? Review Lesson Calendar – What is today's class? When do we ride?*

ABC Check Demonstration: Educator uses one bike. *Have you ever had something go wrong with a bike while you were riding it? What are some things we could check to make sure a bike is safe to ride? Can someone show me the bike parts: brakes, tires, wheels, etc.?* Option: use printed labels from last class.

“A” stands for “Air” Explain air goes in the tire tube. *What happens if not enough air or too much? Point out valves. Palm of hand to forehead vs. cheek. Lower air pressure in one tire for students (one by one) to compare.*

“B” stands for “Brakes, Bars and Bell” Explain “Right” lever for “Rear” brake. “Left” lever for front brake. Demonstrate brakes.

“C” stands for “Chain, Clothing and Crank” Prompt: *Where is the chain & crank? Why clothing?*

ABC Hands-on: One by one students get their helmets on & fit. Then move to a bike in pairs (to prevent riding). Review ABC. Students take turns doing “A” then “B”, then “C” as prompted by Educator.

Prompts: *What could happen if you're going down a hill and you only apply the front brake? A: you could flip over and do a somersault (demonstrate front brake only). If I use just the back brake (demonstrate), is the bike stopping? You need both brakes. Show me.*

Check the bars, put the front tire between your legs, hands up, then twist the handlebars from the side to side. The bars should be firmly connected to the wheel, not loose. Could show one loose and then tighten.

Do a bell symphony. On the count of 3 we ring together. Is a bell or a horn required by law? Why?

Show me the chain. If it's orange/rusty it needs oil and maybe cleaning. Show me the cranks.

Clothing: what could happen if your shoelace or your pant leg got stuck in your chain?

What is the name of the safety check? Answer: ABC Check!

Stationary and Handling Skills Hands-on: One by one students move to their own bike. Check the fit and practice putting the kickstand up and down

Pedal manipulation Hands-on: Students, while standing over bike, brakes on, feet away from pedals, lean bike a little and spin pedal around with one foot. Students stand beside bikes. Educator puts kickstands down with pedal blocking it. Ask students to manipulate bike so kickstand can be raised (demonstrate lifting bike, move pedal, kick kickstand). *Does braking make it easier? Try other foot now.*

Smooth Braking Demonstration: *How do we slow down or stop? A: The brakes. Show me front braking, back, now both. Explain a smooth stop.*

Smooth Braking Hands-on Students line up against wall, walk in straight line with the bike and brake smoothly.

GAME: Play Red-Light-Green-Light. *When I say Red Light, pull on both brake levers at the same time and stop. Watch for both brakes. When I say Green Light, go. Yellow light = slow. What type of braking is more controlled, gradual or abrupt? As students cross the line, keep them in the game. Ask them to call red, yellow or green, or to identify people who need to go back a little.*

Sample Script Lesson #3: Brake, Balance & Coast; Start, Pedal, Steer

Overview and Review: *What did we learn last class?* Review Lesson Calendar – *What is today’s class?* *When do we ride?* Review Helmet Fit. Review ABC (using Simon Says GAME). Review Stationary Skills and Bike Fit. The class will need indoor or outdoor space to allow the exercises below.

Handling Skill Demonstration: While straddling the bike walk backwards and forwards. As you walk, say: left, right, left. Ask, *why would you need to do this?* A: *Move for a pedestrian, stop and move off of a path to talk to a friend, etc.*

Lower the saddles so student’s feet are flat on the ground. *For today, we lowered the saddles for more control of the bike.*

Handling Skill Hands-on: Student move bikes in straight line. Instruct student, *step left, right, left . . .*

GAME: Glide Race Demonstration: Start on the line – brakes on, stay seated, then left right left to the cone line (about 5 metres away) then glide as far as you can with feet up. At the end, do a smooth braking stop and put feet on ground.

Glide Race Hands On: Students line up. Educator repeats above instructions. Students see how far they can glide and then smooth brake.

Power Start Demonstration: Show position for Power Start, we will play same game but use the power start instead of left right left.

Power Start Hands-on: GAME: *Everyone find the Power Position. Do the gliding race with Power Start.* Second Educator to prompt students to do a smooth brake at the other end (before the put foot down).

Start, Pedal, Brake Demonstration: *Now we’re ready to ride!* After your power start, pick up the ground foot and start pedaling. Pedal 4-5 meters and come to a smooth two-hand brake stop. Stop before taking a foot off the pedal. After you stop, put the ground foot down and reset the pedal foot back in power position.

Start, Pedal, Brake Hands-on: Students practice the above demonstration.

Start, Pedal, Steer, Brake Demonstration: Demonstrate with another Educator. From the middle of the baseline execute a power start. Then pedal continuously for at least 10 meters in a straight line, turn left or right to travel in a straight line to one side, and ride in a straight line along the edge of the space to return to the baseline along the outer edge of the space.



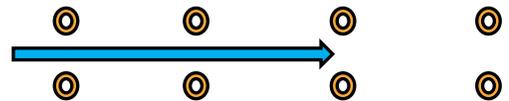
Start, Pedal, Steer, Brake Hands On: Instruct students to go one at a time or in pairs. One Educator prompts the power start at the baseline, while the 2nd Educator stands at the turn line and prompts the turn.

Sample Script Lesson #4: Straight-Line Riding, Braking; Shoulder Check, Signal 1

Overview and Review: *What did we learn last class? Review Lesson Calendar – What is today’s class? Review Helmet Fit. Review ABC (using Simon Says GAME). Review Bike Fit. The class will need indoor or outdoor space to allow the exercises below.*

Straight-line Riding; Brake Control Discussion: *Why should we ride in a straight line and not zig zag? A: It allows cyclists to ride on a bike path next to each other and not collide. Other trail and road users expect cyclists to go in a straight line. On the street and on bike paths, cyclists usually ride single file, one behind another with space in between. Why do we need shoulder check and signals?*

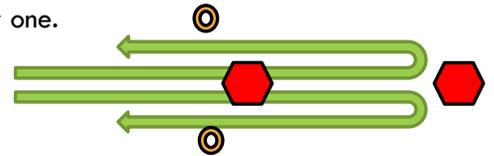
Straight-line Riding; Brake Control Demonstration: Set up a course with cones set about 1 meter apart, later narrow the cones to match the skill level of students.



We’re going to practice riding in a straight line and smooth braking. Point out the power start, ride in a straight line, come to a smooth two-hand brake stop, then put a foot down, and reset to power position.

Straight-line Riding; Brake Control Hands-on: Students practice straight-line riding and smooth braking. Divide students into two groups. Each Educator stands by a stopping cones/line and asks students, one at a time, to ride towards them and come to a smooth two-hand stop at the line 4-5 meters away. Educators move backwards as students repeat this process down the course one by one.

Then have the students follow one another spaced out one bike length. Right lane students turn right and ride the perimeter of the space back to the baseline; left lane students turn left.



Then move cones/stop line back to allow more speed and practice smooth braking before turning.

Optional GAME: Slow Race Hands-on:

Establish a starting point and finish line. You may need to do it in smaller groups (2 or 3 at a time).

Stationary Shoulder Check Hands-on: Students stand over bikes. Educators move behind students. Have the students bow head, drop chin & look over left and right shoulder. *What are we looking for? A: another bike beside you or a car (before you make a turn). Did you turn your handlebars or only your head?*

Stationary Signalling Hands-on: *Who can show me hand signals for right turn, left turn, stop? Why are hand signals important? A: They help other road users know what you are doing. Demonstrate. Students show.*

Explain, next class we will practice shoulder checks and signaling while riding.

Sample Script Lesson #5: Shoulder Check; Signal 2; Turning; Controlled Group Ride

Overview and Review: *What did we learn last class? Review Lesson Calendar – What is today's class? Review Helmet Fit. Review ABC (using Simon Says GAME). Review Bike Fit. The class will need indoor or outdoor space to allow the exercises below.*

Stationary Shoulder Check Hands-on: Review: students stand over bikes. *Who remembers the shoulder check? Educators move behind students. Have the students bow head, drop chin & look over left and right shoulder. What are we looking for? A: another bike beside you or a car (before you make a turn). Did you turn your handlebars or only your head?*

Riding Shoulder Check Demonstration: One Educator moves 2/3 down a straight-line course, faces rider Educator and holds fingers behind back. The other Educator rides down the course. As rider passes, they check over shoulder (keeping bars straight) and call out number of fingers that Educator is showing behind back. Educator prompts rider, *How many fingers? Rider calls out number of fingers that they saw.*

Riding Shoulder Check Hands-on: Each student does riding shoulder check (as demonstrated above). Do right side then left.

Stationary Signalling Hands-on: Review: *Why are hand signals important? A: They help other road users know what you are doing. Who can show me hand signals for right turn, left turn and stop? Demonstrate. Students show. Remind students, look ahead, keep bars straight.*

Riding Signaling Demonstration: One Educator rides, the other goes to end of course and calls out *right turn* or *left turn*. Rider signals as instructed. Then Educator calls *stop* at the end of the course. Rider signals and stops putting feet down. Road signs can be used.

Riding Signaling Hands-on: Students practice signals as demonstrated above. NOTE: If students are not comfortable riding with only one hand on the bars, tell them they are excused from signaling exercises.

Turning Demonstration: Set up cones for straight line one-way and (if space allows) for a gentle slalom course returning. Educator shows power start and rides straight, turns right or left and returns through slalom course. Explain: *For easier, safer turning right, keep the right pedal up. Point your right knee to the right before you turn your bike. Similar for left.*

Turning Hands-on: Students go one by one. Power start, ride straight, turn and return through slalom course. As they improve, they can follow each other keeping at least one bicycle length in between. Ask students to try keeping one pedal up and pointing knee (on the side they are turning).

Shoulder Check, Signal and Turn Demonstration: Educator shows power start and rides straight. At the other end the other Educator (facing rider) calls *turn left* or *turn right*. Rider does shoulder check, signals and turns. Rider returns to start point.

Shoulder Check, Signal and Turn Hands-on: Students one by one do power start, ride straight, shoulder check, signal and turn.

Group Ride Hands-on: Explain, *There are rules to follow when we ride as a group: 1 Line, single file, no passing. Stay to the right. Space minimum 1 bicycle length apart. Signal (if comfortable) when leader signals (signals pass down the whole line).*

Educator then leads a slow, controlled ride around the space. One educator monitors students from a position at the very end of the line, giving feedback on signaling and spacing and making sure there is no passing. Students practice all the skills they have learned in the controlled group ride.

Plan for student recognition/awards at future date

6. Acknowledgments

The “I Can Bike!” project was a collaboration between the Toronto District School Board and CultureLink Settlement and Community Services. The project was funded over a two-year period by the Ontario Trillium Foundation.

Lesson Plan Summaries are based on the lesson plans for grade 9 Health and Physical Education (HPE) class, developed by CultureLink for the Active and Sustainable School Travel Regional Hub, convened by Metrolinx, 2018. Sample Lesson Scripts are adapted from the CultureLink Cycling Educator Training Manual (unpublished).

CultureLink would like to thank the following people and organizations who contributed to this project:

Project Funding: The Ontario Trillium Foundation

The Toronto District School Board and the teachers, administrators, and students at our host school

Draft Cycling Education Guide for Students with Barriers to Learning: CultureLink Cycling Educators Debra Alexander and Chantelle Cambell-Scholzberg

I Can Bike! Evaluation: Paul Young - Public Space Workshop and Cycling Educators Kate Colenbrander and Grace McNee

I Can Bike! Educator’s Guide and photos: Paul Young - Public Space Workshop, Sam Perry & Kristin Schwartz – CultureLink Settlement and Community Services

7. Appendices

Appendix 1. Curriculum Links and Expectations (ABC Check & Road Safety)

A. Active Living

Overall Expectations:

- A1. participate regularly in a balanced instructional program that includes a wide variety of enjoyable physical activities that encourage lifelong participation
- A3. demonstrate safe practices regarding the safety of themselves and others

Specific Expectations:

- A1.2. demonstrate an understanding of factors that contribute to personal enjoyment of being active and can support their participation in physical activity throughout their lives
- A3.1. demonstrate behaviours and apply procedures that maximize their safety and that of others

B. Movement Competence: Skills, Concepts and Strategies

Overall Expectations:

- B1. perform movement skills, demonstrating understanding of basic requirements of the skills & applying movement concepts as appropriate, as they engage in a variety of physical activities

Specific Expectations:

- B1.1. perform stability and locomotor skills in combination in a variety of physical activities while responding to external stimuli

C. Healthy Living

Overall Expectations:

- C1. demonstrate an understanding of factors that contribute to healthy development

Specific Expectations:

- C1.1. explain how active living and healthy eating contribute to a person's physical health & mental, emotional, & spiritual well-being, & describe benefits of a holistic approach to health

Curriculum Expectations Covered in Each Lesson

Lesson 1: Overall: A1, C1	Specific: A1.2, C1.1
Lesson 2: Overall: A3, B1	Specific: A3.1, B1.1
Lesson 3: Overall: A3, B1	Specific: A3.1, B1.1
Lesson 4: Overall: A3, B1	Specific: A3.1, B1.1
Lesson 5: Overall: A1, A3, B1	Specific: A1.2, A3.1, B1.1

Educator Preparation Required

- Teacher to review *Young Cyclist's Guide* (Ontario Ministry of Transportation): <http://www.mto.gov.on.ca/english/safety/pdfs/young-cyclist-guide.pdf>
- Teacher to review OPHEA Guidelines for cycling activities (secondary): <http://safety.ophea.net/safety-plan/169/1919>
- See "Equipment and Support" listed above
- Copy *Black Line Masters (BLM) – Grade 9, Lesson #1 – Activity Stations, BLM – Grade 9, Lesson #2 - Worksheet* (provided)
- Maps of school property/neighbourhood, ideally a cycling map (inquire from region/municipality)

Appendix 2. Pictorial Calendar Sample:

Class 1



Helmet fit

Bike fit



Class 2

ABC Safety Check



Handling check

Class 3

Balance and coast



Class 4

Straight line riding



Class 5



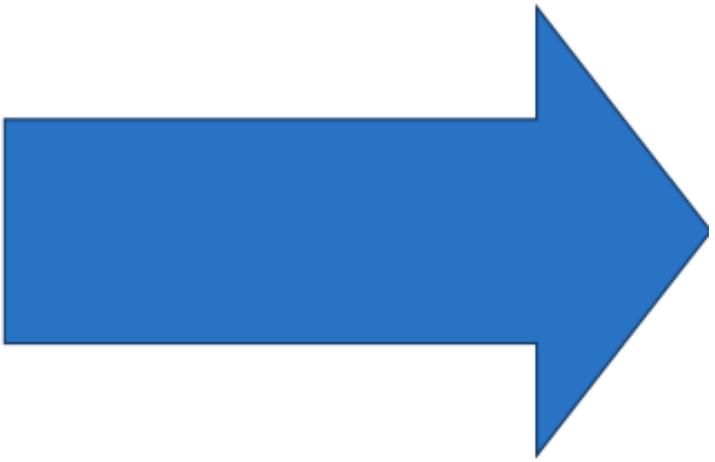
Signals





“Which lesson are we on today?”
STUDENT PLACES IT ON PICTURE

PICTURE OF LESSON
“If we do this”



PICTURE OF NEXT LESSON
“Then we do this”

Appendix 3. Bicycling Skills Assessment

START, PEDAL, STEER, BRAKE

ASSESSMENT 1	4	3	2	1	0
SKILLS	Exceptional	Reliable	Inconsistent	Struggling	No Attempt
Can straddle the bike frame and put one foot in a power position on the pedal					
Can push down on one pedal for a power start					
Can pedal continuously to keep bike moving at least 10 meters					
Can steer the bike in desired direction					
Can apply both brakes to come to a safe stop					
START, PEDAL, STEER, BRAKE SCORE TOTAL (out of 20)					
SOCIAL BEHAVIOUR SCORE (out of 4)					
ASSESSMENT 2	4	3	2	1	0
SKILLS	Exceptional	Reliable	Inconsistent	Struggling	No Attempt
Can straddle the bike frame and put one foot in a power position on the pedal					
Can push down on one pedal for a power start					
Can pedal continuously to keep bike moving at least 10 meters					
Can steer the bike in desired direction					
Can apply both brakes to come to a safe stop					
START, PEDAL, STEER, BRAKE SCORE TOTAL (out of 20)					
SOCIAL BEHAVIOUR SCORE (out of 4)					

Appendix 4. Resources and References

Worksheet Suggestions:

Terminology

- CultureLink's Bicycle Anatomy Basic Terms Diagram
- Bikeology's Beginner Level Bike Parts (pgs. 56, 57, 58)
<https://www.shapeamerica.org/publications/resources/teachingtools/qualitipe/upload/bikeology-curriculum-part1-v2.pdf>
- Try the Hangman game for bike parts
- Draw a Bicycle using the Letter "M" (sample: https://www.youtube.com/watch?v=tG1DrYV4_h4)

References:

This project is informed by the research of:

Alisha Witter ("The Determinants of Successful Cycling in Children with Special Needs", unpublished thesis, McMaster University, 2011) and

Janine Halayko ("You Can Ride Too! An Exploration of the Guided Discovery of Two-wheeled Cycling Skills by Youth with Intellectual Disabilities", unpublished thesis, University of Alberta, 2014).