

Freedom to Ride

Bicycle Skills Curriculum



Acknowledgements

MOVE Santa Barbara County incorporated in 1995, and has taught bicycle education to youth and adults for over two decades. This curriculum is based on national guidance, our experience, and the suggestions and recommendations of educators, parents, community members and students. Our goal is to provide simple visually-driven guidance that provides the flexibility to tailor the program to work for a variety of schools and other educational programs. Bicycling is fun, good for the planet, good for your health and cost efficient. We want students to love to ride and to learn to do so safely, ensuring a lifetime of freedom to explore their worlds.

This curriculum would not be possible without the decades of support, guidance and dedication of individuals and organizations too numerous to mention.



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Learning to ride a bicycle is a milestone of childhood.

Bicycles **foster confidence** and promote a **healthy, active lifestyle**.

They give kids the **freedom to explore** their world and have fun while doing so!

We designed this curriculum to give kids the skills that they need to pedal the streets in their community safely. We hope that by learning these skills, students and families will be more likely to consider the bicycle as a way to get to school, run errands, and get anywhere they need to go.

Historically, bicycle education has focused on a rules-first approach, teaching kids skills because it is the law. Our goal with this curriculum is to reframe the teaching process. You should learn how to ride safely because it gives you freedom and independence. Riding safely means having more fun. Teaching your students these skills with this positive philosophy in mind will not only help them see the benefits of safe riding, but will also make them more conscious and active members of the community.

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LEARNING GOALS

The goal of this curriculum is to give students the skills and freedom to confidently and capably pedal the roads of their communities safely. These learning goals can be broken down into three core categories:



Bicycle Handling

How to start, stop and avoid different types of obstacles that they might encounter on the road.



Traffic Rules

How to ride on the proper side of the road, scan for traffic, signal, recognize right of way, and safely merge/turn.



Equipment Safety

How to check the condition of their bicycle, fit of their helmet, and clothing prior to every ride to ensure safety.

LESSON PROGRESSION

We have built the following sequence of lessons to teach students these comprehensive riding skills. These lessons will help them not only be more confident bike handlers, but allow them to safely navigate and explore the world around them.

For second and third grade students, or novice riders, we recommend using Lessons 1-4. They focus on basic bike handling skills.



Lesson 1: The Basics

How to start and stop safely, signal, and scan over your shoulder for traffic.

Lesson 2: Bike Control

How to safely control your bicycle on a course with more complex turns.

Lesson 3: Driveways

How to properly enter and exit a driveway while yielding to traffic.

Lesson 4: Ride on the Right

How to ride on the right side of the road through a series of traffic scenarios.

For fourth, fifth, and sixth grade students, or students who have mastered the basics, we recommend using Lessons 1 and 5-8. These lessons teach them how to implement basic bike handling skills in more complex, real-world environments.



Lesson 5: Intersections

How to navigate 4-way and 2-way intersections, observing proper right of way.

Lesson 6: Advanced Skills

How to cross railroad tracks, ride with one hand, and ride while standing up.

Lesson 7: Hazard Avoidance

How to avoid small and large obstacles, as well as stop quickly and safely.

Lesson 8: Lane Position

How to make a left turn across multiple lanes with oncoming traffic.

WHAT YOU WILL NEED

Gathering the necessary resources to implement this curriculum is crucial to success for you and your students. Here is an outline of what you will need to prepare them to explore their world safely:

Equipment

Each student will need a functioning bicycle and helmet to complete these lessons. If students will be sharing helmets, we also suggest using hair nets and having a trashcan on hand to dispose of these. You will also need a set of cones, traffic signs, sidewalk chalk, and simulated hazards. See our [Materials Guide \(page 100\)](#) for a detailed breakdown of these resources.

Location

You will need a space such as an empty parking lot or a school blacktop so students have a safe, car-free area in which to learn these skills. If your school has outdoor basketball courts, those are an ideal space to stage each lesson.

You will also need a secure location to keep the bicycles. If your students are bringing their own bicycles, make sure there are secure racks where they can park them. If bicycles and equipment are being provided by a school or a local partner, find a secure location near your teaching site to keep the bikes.

Time

We designed each lesson in this curriculum around a 45 minute class period. If you have more or less time, we have included suggestions in each lesson plan on how to modify accordingly.

Personnel

To successfully teach the lessons in this curriculum, we strongly suggest a minimum of three assistants. These assistants can be grade level teachers, school staff, or community volunteers. If you cannot secure three assistants, we have included suggestions in the lesson plans on how to adapt.

See our [Campus Support Guide \(page 97\)](#) for tips on how to work with your school to recruit assistants. Our Volunteer Guide provides detailed instruction for each of these assistants. For parents this presents a great opportunity to help teach their child how to ride a bicycle safely, a milestone for many!

LESSON 1

THE BASICS

INTRODUCTION

Lesson #1 will be many of your students' first introduction to how to ride a bicycle safely. They will learn how to properly start and stop, ride in a straight line, scan for traffic, and signal before turning. These skills will help them safely navigate much of the basic infrastructure that they will encounter while pedaling their streets.

This lesson isn't just about learning the basic techniques of safe neighborhood riding. Being able to navigate their streets gives your students the freedom to move through their communities under their own power. The ability to bike rather than walk opens up their world exponentially!

Objectives

After completing this lesson, your students will have mastered the following new skills:



Starting

Using the Power Pedal Position to ensure a smooth start and ability to confidently ride in a straight line.



Stopping

Recognizing the need to stop at a stop sign, check both ways, and restart from the Power Pedal Position.



Scanning

Being able to look over their shoulder and scan for traffic, while still riding in a straight line.



Signaling

Properly indicating turns by taking a hand off the bars to signal in advance of the actual turn.

PREPARATION

Materials

For this lesson, you will need the following materials:

- A bicycle for every student
- A helmet for every student or
 - Hair nets for every student if sharing helmets
 - Trash can for hair nets
- 4 stop signs
- 7 big cones
- 123 small cones
- Directional arrows
- Sidewalk chalk
- Bicycle floor pump
- Chain lube and rags
- Large adjustable wrench
- Allen wrench multi-tool



Logistics

To teach the lesson you will also need the following:

- A secure paved space on your school campus. This could be a blacktop playground or parking lot.
- At least 3 volunteer assistants: 2 for the Learner's Course, and 1 for the Group Ride. More assistants will allow a better student to adult ratio. See [Campus Support Guide](#) guide for tips on how to find assistants. See Page 16 for how to adjust the lesson with fewer assistants.



Classroom Prep

In the days leading up to the lesson, work with the classroom teacher on the following preparations:

1. Send home [Parent Notification Flier](#) to remind students and parents to bring their bikes on the day of the lesson, and to request parent volunteers.
2. Have all students watch:
 - For 5-9 year olds: https://www.pedbikeinfo.org/bicyclesaferjourney/el_en.html
 - For 10-14 year olds: https://www.pedbikeinfo.org/bicyclesaferjourney/mi_en.html



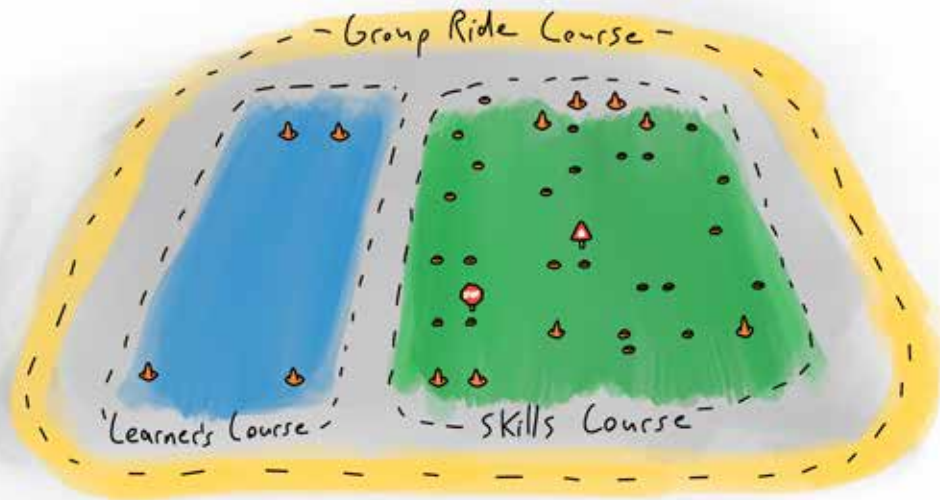
Duration

This lesson is designed around a 60-minute class period, though it can be modified based on your desired duration (see page 24).

- **Pre-Lesson Instruction** (10 min): Walk students through the bike and safety checks.
- **Course Assignment** (10 min): Divide students between courses based on skill level.
- **Lesson** (35 min): Instruct students on the core skills of the lesson, with those on the Skills and Group Ride Courses flip flopping halfway through.
- **Cleanup** (5 min): Gather bikes and helmets and discuss lessons learned.

Courses

During the Lesson period, students will ride one of these three courses:



Learner's Course

Here, the students who do not yet feel comfortable riding a bicycle can practice balance and pedaling with the help of your assistants.

Skills Course

This is the backbone of the lesson. Students will navigate obstacles, practicing skills from the Objectives as well as those from previous lessons.

Group Ride Course

As they wait for their turn on the skills course, students will go on an assistant-led loop ride, practicing skills from previous lessons.

Setup

On the day of the lesson, 30-40 minutes before the students arrive, work with your volunteer assistants to set up the three courses using cones, chalk, directional arrows, and traffic signs. You will also need to designate an area to stage bicycles and helmets. See the end of this lesson plan for a detailed diagram of the Skills Course, and page 19 for a detailed diagram of the Learner's Course.

PRE-RIDE INSTRUCTION

1. Set Expectations

Once the students arrive, they will likely head straight for the bikes and want to get riding as soon as possible. However, there are several key points to cover with them before they start pedaling so that everyone has a safe and fun day.

Each of the elements below is described in the second person so that you can use them as a script if needed. Emphasize that these are not about punishment, but making sure that everyone has a good time:



Listen to the instructor and assistants. If you don't, your ride could be over for the day.



Make sure to always wear a properly adjusted helmet when riding out on course.



Skidding, wheelies, and racing are not allowed. These can damage bikes and cause crashes.



Be kind and patient with your classmates. Help each other so that you can all ride together.

2. Distribute Bicycles and Helmets

Distribute plastic liners for the students to wear under helmets if they will be sharing.

If the students have brought their own bicycles, ask them to go stand next to theirs. If students are using provided bicycles, have your assistants assign them to bicycles that fit them best based on the illustration to the right. You will fine-tune fit and seat height later on in the lesson.

There should be at least 1-2" of clearance between the student and the bike when they are standing over it.



3. Toe to Head Check

Before students start riding, have them do a quick assessment of their clothing to make sure that they are visible to cars, and don't have loose items that might get caught in a wheel or chain.



Shoes

Tie your laces and tuck them into the side of your shoe, or under the top laces.



Pants

Roll up your right pant leg up to just below your knee and make sure to cuff it.



Loose Clothing

If you are wearing a sweatshirt around your waist, roll it into a tight noodle and tie it.



Colors

Wear bright colors so that drivers can see you and give you the space you deserve.

4. “2-2-2” Helmet Check

California law requires that youth 17 years and younger wear a properly fitted helmet while riding. Remind your students that they shouldn't just wear a helmet because it is the law: it protects your head and brain too! They can use two fingers to check all three of the adjustment points on the helmet. Have your assistants move around the group to help as you walk students through the following steps:



Forehead

You should only be able to fit *two fingers* between your eyebrows and the helmet. If the helmet tilts further back, it won't protect your brain.



Ears

Make the letter “V” with *two fingers*, and put them right under your ears. That is where the buckle or seam of your helmet straps should sit.



Chin

You should only be able to fit *two fingers* between your chin and the strap. If you can fit any more, your helmet could slip back in a crash.

Have your students shake their heads to ensure that the helmet is comfortable but doesn't move around on its own. Your assistants should double check each student's helmet to make sure they got the fit right.

5. Bicycle Check

Now that your students are ready to ride, it's time for them to give their bikes a quick once-over. We do this using a simple Safety Check, which students should do every time they go for a ride. Walk them through each of these steps, using your bike as an example. If any student's bike doesn't pass one of these steps, tell them to raise their hand and an assistant will help them fix it.

1. Air

It's pretty hard to ride on a flat tire. Check that yours are inflated by squeezing both your front and rear tires with your fingers. They should feel hard, not squishy.



2. Brakes

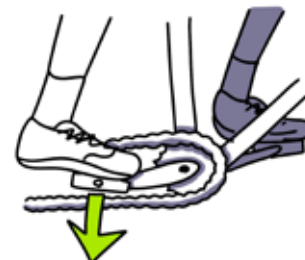
How would you come to a stop if your brakes were not working? There are different ways that you can check to make sure that they are functioning depending on the type of brakes you have:

- **Hand (Rim) Brakes:** If your bike has levers on the handlebar, it has hand brakes. These stop the bike when you pull them. To test them, stand over your bike, pull the left lever to activate your front brake, and rock your bike backwards and forwards. Then do the same with your right lever to activate your rear brake. Your bike shouldn't be able to move when a lever is pulled.

It is important to use both brakes at the same time. If you just grab the rear brake this can lead to an uncontrolled skid. If you just grab the front break the bike can flip forward and send you over the handlebars.



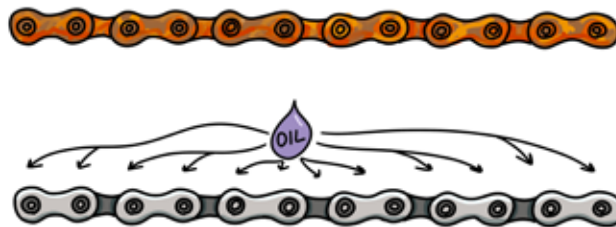
- **Coaster Brakes:** If your bike does not have brake levers on the handlebar, it has a coaster brake. This stops the bike when you pedal backwards. To test this, sit on the seat, put one foot on a pedal, and push backwards. While doing this, rock the bike backwards and forwards. It shouldn't be able to roll.



3. Chain

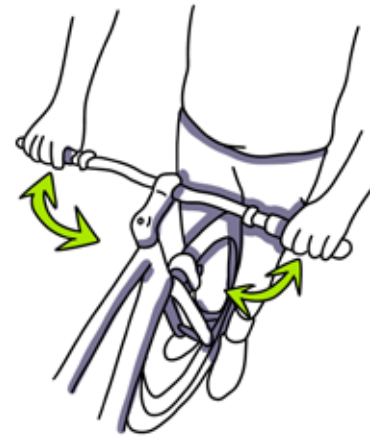
Your chain is one of the most important parts of your bicycle. It is what allows your pedaling to move the rear wheel. Without it you wouldn't be able to get anywhere fast! There are several things to check on your chain before riding:

- Is the chain dry or rusty and orange? If so, it might need some oil to function properly.
- For older students with geared bikes, have a classmate pick up your seat so the rear wheel of your bike is off the ground. Then rotate one of the pedals forward (clockwise) with your hand. This will make sure that the chain is properly seated on your gears before you start riding. If it is stuck between gears, it can break when you start pedaling.



4. Handlebars

Your handlebars not only help you steer your bike, but are home to your shifters and your brake levers. Making sure that they are properly tightened onto your bike is crucial. Imagine trying to drive a car with a loose steering wheel! To check this, stand in front of your bike, and grip your front wheel between your legs. Grab your handlebars and twist them side to side. They should not move. If they do, there are two ways to fix this depending on what type of stem your bike has.



If there are no bolts on the side of the stem, tighten the bolt on the top until the handlebars no longer twist.

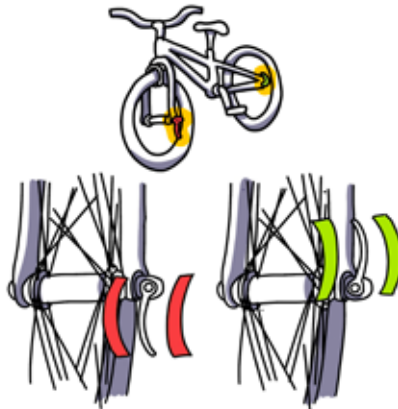


If there are bolts on the side of the stem, tighten them both equally until the handlebars no longer twist.

5. Wheels

Check to ensure that the wheels are secured tightly. Many bicycles have a quick release lever on the side of the wheel that holds it in tight. Flipping the lever into the tightened position should take a little bit of force. If it flips up too easily, or doesn't stay closed, tighten the nut on the other side of the hub.

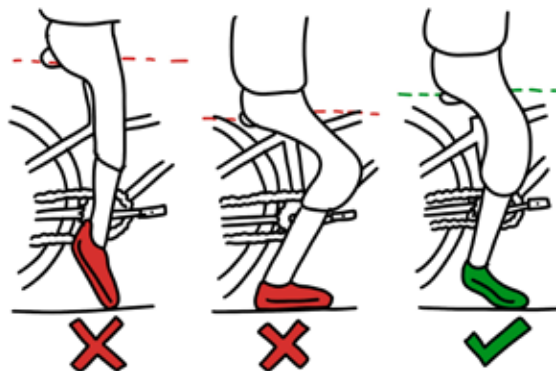
Some students may have bicycles where the wheels are held in place by bolts or a thru-axle instead of a quick release. Have an assistant with a large adjustable wrench and multi-tool with allen wrench circulate through the students as they do these checks to help tighten these as needed.



6. Seat

Proper seat height is key to enjoying your ride safely. When seated, the rider's feet should just be able to touch the ground. Note that for those just learning to ride, we will start with the seat slightly lower. This will be covered later on in the lesson.

On many bikes, proper height is controlled by a quick release lever located where the seatpost enters the frame. This lever functions the same way as the quick release on a wheel. When this lever is opened, it allows you to raise and lower the seatpost. Have your assistants work with each student to set proper seat height, and then close the lever in the same way that you did on the wheels.



LESSON

Course Assignment

After the safety checks, it is time to start the lesson. Divide your students into two groups:



Those who know how to ride



Those who are still learning to ride

Use the following steps to do this:

1. Tell the students, “If you know how to ride a bike, join us for quick lap around the lesson area.” Have any students who do not join this lap move to the Learner’s Course.
2. If any of the students who did join the lap are clearly are still struggling to ride, have them also join the Learner’s Course.
3. If you have two or more assistants, split the remaining students who did complete the lap successfully into two groups. One will proceed to the Skills Course, while the other will continue riding laps with an assistant as part of the Group Ride. Halfway through the lesson, these two groups will switch areas.
4. If you only have one assistant, drop the Group Ride and have all the students who successfully completed the quick lap proceed to the Skills Course.

Starting The Lesson

Instruction will now begin simultaneously on all of the courses. We suggest having the PE teacher manage the Skills Course, the classroom teacher or an assistant manage the Learner’s Course, and a third assistant manage the Group Ride. Additional assistants can help on the Learner’s Course, or in specific places on the Skills Course as noted below.

Here is a breakdown of how to run all three of these courses:

1. Learner’s Course: pages 17-19
2. Skills Course: pages 20-22
3. Group Ride: page 23

Learner's Course Instruction

The Learner's Course is where the classroom teacher or an assistant, plus ideally 1 additional assistant (a 4:1 student to adult ratio is best) will help those students who are not yet comfortable riding a bicycle on their own. Share this portion of the Lesson with the adult who will be leading the instruction so that they are familiar with the skills progression.

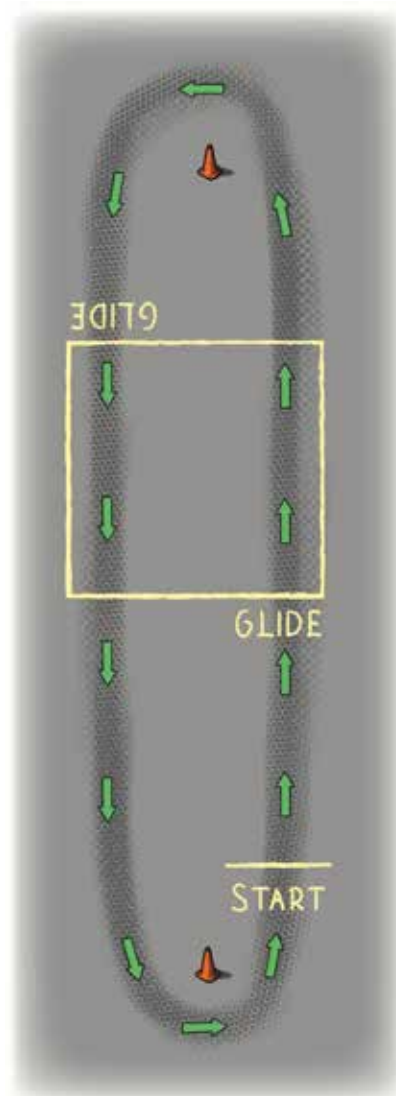
Teaching a kid how to ride a bicycle is one of the most fulfilling activities you can be involved in! Everyone learns at their own pace, so to take it slowly and let every student decide how quickly they are ready to move forward. Be supportive and maintain their trust. Make sure that all adults working on this course understand this, and have read their [Volunteer Guide](#).

Setup

The Learner's Course should be set up as a long narrow rectangle, with the students riding in a big loop. This allows them to ride in a straight line while mastering a particular skill. If there is a downward slope anywhere on the blacktop, use it! Students will master these skills faster if they have some momentum.

Directions

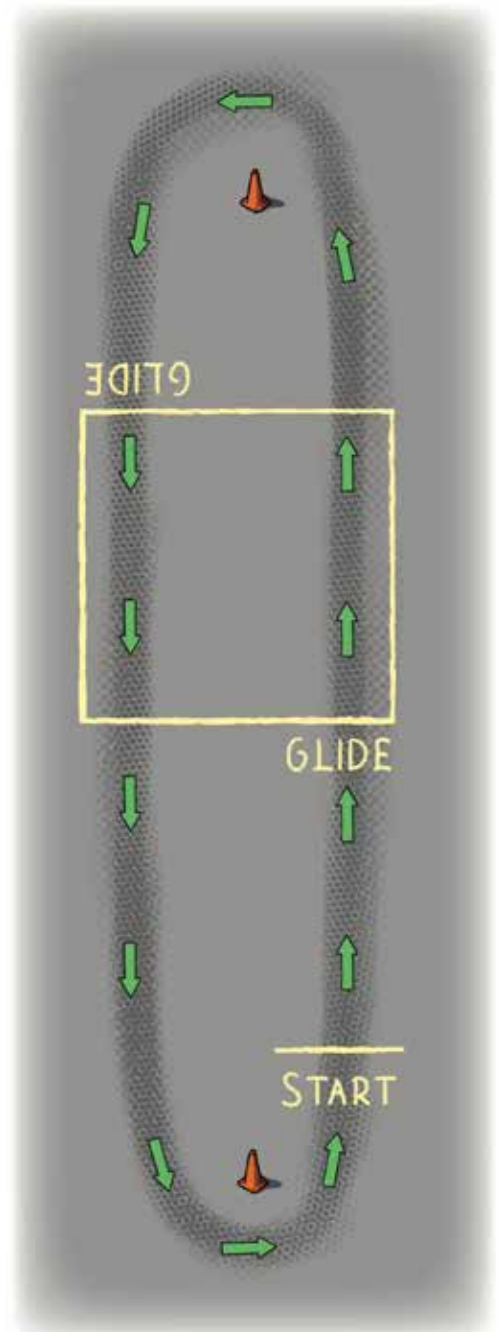
1. Have the students line up behind the designated start line.
2. Adjust each student's seat so that they can sit on the bike while also having their feet flat on the ground.
3. Adjust the seat on your own bike to the same height.
4. Demonstrate how to use your brakes:
 - Rocking forwards and backwards while standing over your bike, grabbing their brake levers (for hand brakes) or holding a pedal backwards (for coaster brakes).
 - For those with coaster brakes, explain how their bike will always stop when they pedal backwards.
5. While standing over your own bike, demonstrate how they can move forward by walking with their bike.
6. Then show them how they can push off the ground with one foot, then the other, and then lift their feet up to glide forward. We call this "Push Push Glide."



7. Have the students start walking around the course in a big loop while standing over their bikes as demonstrated, then progressing to Push Push Glide as they are comfortable. They should start with smaller steps for the Push Push portion, then proceed to larger steps as they are comfortable.
8. Mark off part of the area with chalk, and encourage them to glide when they are in this area.
9. As students master Push Push Glide, encourage them to try putting their feet onto the pedals during the Glide portion. You can say “Push Push Glide PEDALS!” to motivate them.
10. Once some of the students have gotten comfortable putting their feet on the pedals, have everyone pause wherever they are on the course and turn towards you.

11. Demonstrate with your own bike how to start from the Power Pedal Position:

- Rotate your dominant foot pedal at 2:00, or roughly parallel to the downtube of the bike frame.
- When ready, push down on hard the pedal, then hard on the ground with your other foot, and roll forward.
- Immediately bring your other foot onto the other pedal.
- Keep pedaling. The faster you go the easier it will be to balance.
- Hold your handlebars straight to avoid swerving.
- Don't look down, keep your head high and shoulders straight. Your bike will naturally want to go where you are looking.
- When ready to stop, use your brakes to slow down to a stop before taking your feet off the pedals.



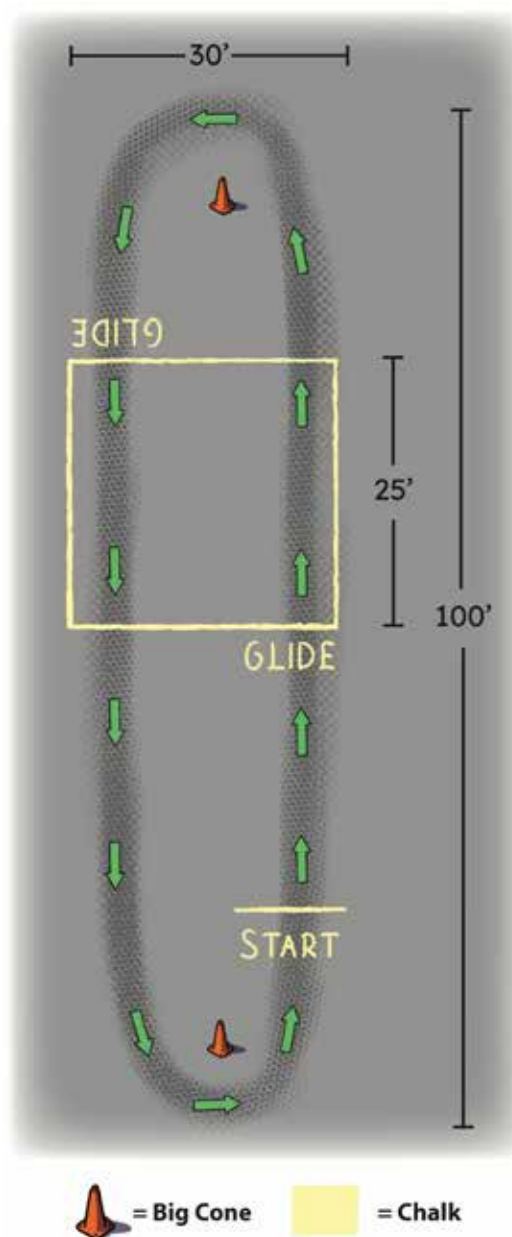
12. Have the students restart riding the course, with those who are ready to do use the Power Pedal Position doing so. The rest can continue to practice Push Push Glide.
13. If you have enough assistants, have one walk behind each student as they start from the Power Pedal Position to steady them if they lose their balance.

General Tips

- Whenever possible, avoid holding onto a student or their bike as they learn to balance. Kids learn to balance much better if they don't have an adult holding them up. If necessary, demonstrate the skills again on your own bike, then have them repeat it.
- If a student is working really hard and not getting it, take a water break and tell them they're doing a great job! You can also switch students with another assistant. Sometimes hearing the instructions in a different way will help the student progress.
- Students are dealing with learning a lot at once. Be patient and whenever you can, break down those components. This is a learning process for everyone!

Course Layout

Here is a diagram of the Learner's Course to help with setup. Feel free to modify as needed based on the space available at your school.



Lesson 1 Skills Course Instruction

The Skills Course is where you and an assistant will teach the primary skills of this lesson. Students will ride through this course in three phases, adding an additional skill with each phase. Each phase should last 5-10 minutes, or until students have mastered the new skill introduced in that phase. Halfway through the class, have the students switch places with those in the Group Ride.

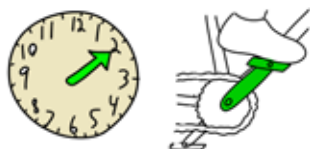
Before students begin each phase, ride the course and narrate where they should be practicing each skill. We have underlined these in the Directions. Then have the students ride through the course one at a time, counting to 10 after each student starts to space them out. Students should switch lanes every time they ride the course to practice making both left and right turns.

Phase #1: Starting and Stopping

In Phase #1, students will practice starting from the Power Pedal Position and stopping.

Objective

This phase will introduce the following new skill:



Power Pedal Position

Rotating your dominant foot pedal to the 2:00 position before starting. This will give you the most leverage when starting out, allowing you to maintain a straight line without wobbling.

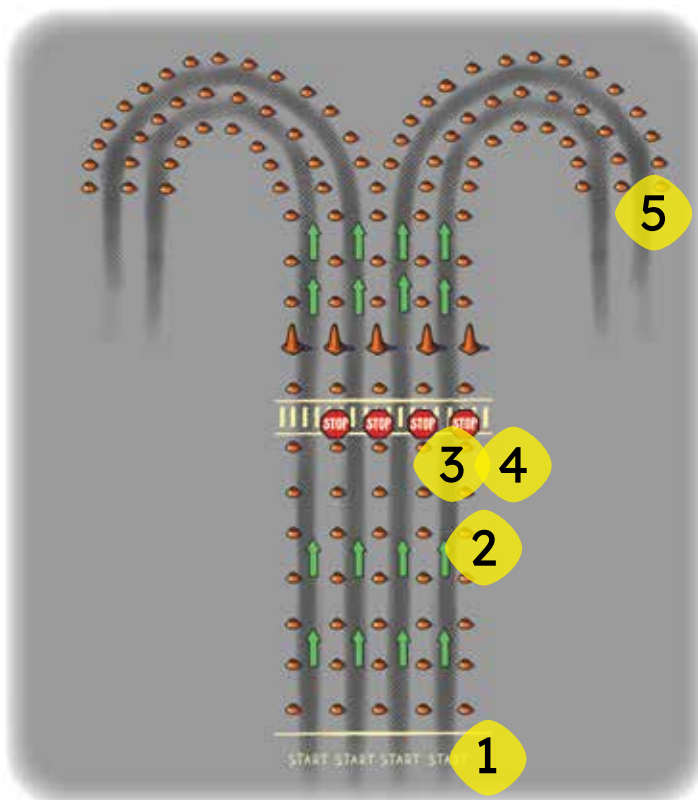
Setup

Have students line up in 4 lines, one behind the start of each course lane. Have your assistant act as a pedestrian at the crosswalk, randomly crossing in front of students.

Directions

1. Start from the Power Pedal Position.
2. As you approach the stop sign, gently squeeze your brakes. Wait to take your feet off the pedals until you have brought the bike to a complete stop.
3. Return pedals to the Power Pedal Position.
4. Look left, then right, then left for traffic and pedestrians. Then resume riding the course.
5. After exiting the cones, return to the start line and queue up to repeat the course.

Once the students master these skills, move on to Phase #2.



Phase #2: Signaling

In Phase #2, students will add proper hand signals as they make the turn at the end of the course.

Objective

This phase will introduce the following new skill:

Hand Signals

Signaling before the turn to let cars, other cyclists, and pedestrians know your intent.

Remind students to hold the signal for 2-3 seconds. This will allow them to return their hands to the handlebars to make the turn safely. To remember this, have students say the phrase “big and strong, hands back on” whenever signaling during this phase.



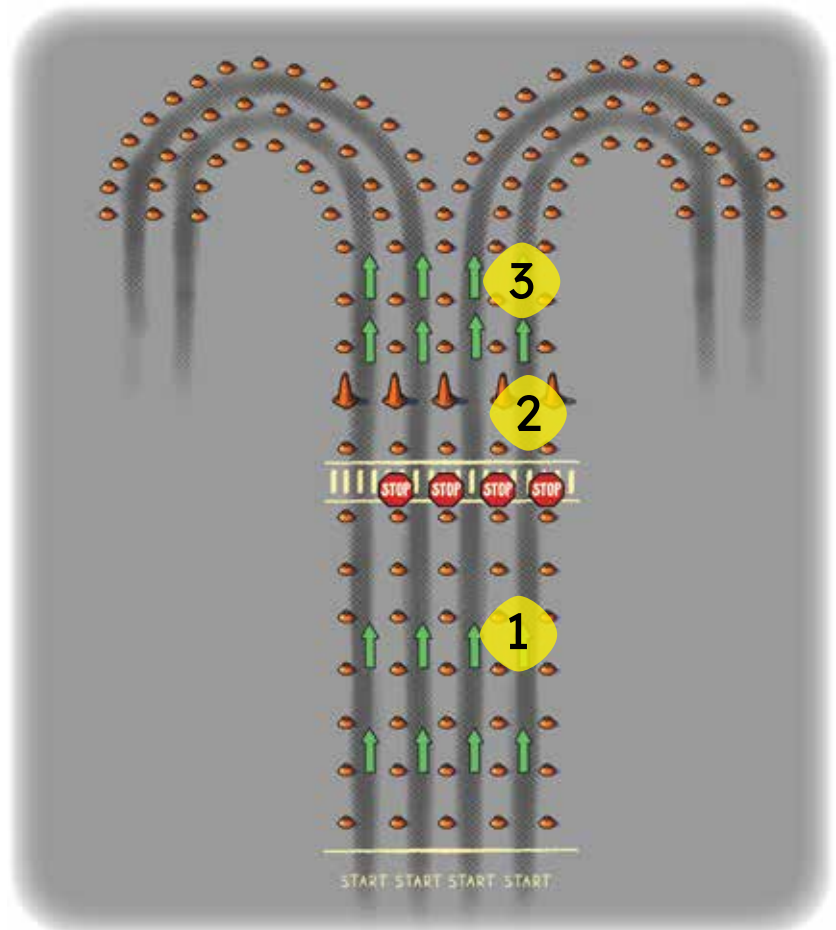
Setup

Like in Phase #1, have students line up in 4 lines, one behind the start of each course lane. Have your assistant act as a pedestrian again.

Directions

1. Ride the course up until the turn in the same way that you did in Phase #1
2. Once you reach the big cones, take the appropriate hand off the handlebars, and signal. Students who are not ready to hold a signal can practice briefly taking their hand off the handlebar, holding it out a little longer each time.
3. Return both hands to the bar before entering the turn.

Once the students master these skills, move on to Phase #3.



Phase #3: Scanning

In this phase, students will practice scanning over their shoulders for traffic approaching from behind.

Objective

This phase will introduce the following new skill:

Scanning

Looking over your shoulder to check for traffic coming from behind. Make sure to hold your handlebars straight to avoid veering in the direction you are scanning.

Setup

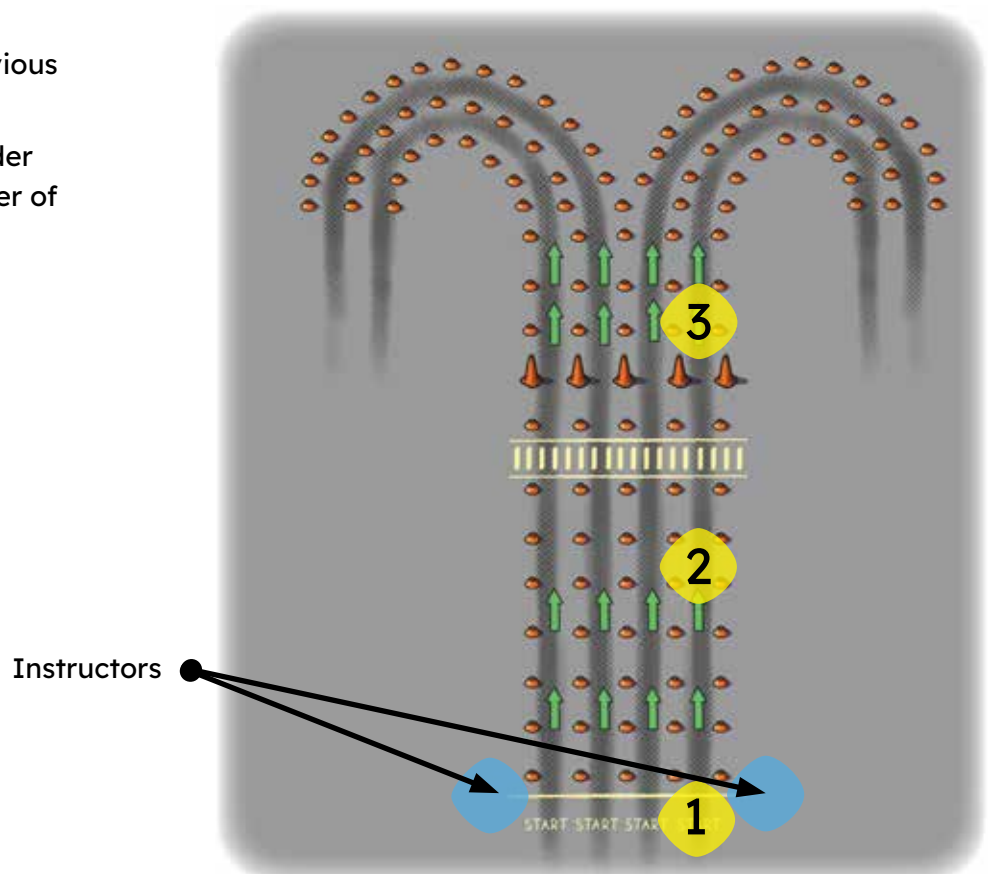
Remove the stop signs on the course before beginning this phase, as students will need momentum and distance as they practice scanning. You and your assistant should take up positions at the start of the course. Like in Phase #1, have students line up in 4 lines, one behind the start of each course lane.

Ask students why it's important to scan before they turn. What could happen if they don't? Answer: they could turn into a car coming up behind them and get hit.

Tell the students you and your assistant will stand in the noted position on the course and hold 0-5 fingers, varying these as the lesson progresses. When a student is approaching the crosswalk, they should the student look over their left shoulder (if in the left two lanes) or right shoulder (if in the right two lanes) and shout back the number of fingers that they see.

Directions

1. Ride the course as in previous phases.
2. Scan over your left shoulder and shout back the number of fingers that you see.
3. When you get to the big cones, signal and turn.



Lesson 1 Group Ride Instruction

The Group Ride is where an assistant takes the half of the class that is not participating in the Skills Course on a follow-the-leader ride around the lesson area. Students should follow the assistant assigned to lead this ride. Maintain *1-2 bike lengths* between riders. For this lesson, have the assistant call out the following skills as they ride around the lesson area:

- **Starting from the Power Pedal Position:** When starting or restarting, call out Power Pedal Position. Students should start with their dominant foot pedal at 2:00, or roughly parallel to the downtube of their frame.
- **Stopping:** Periodically call out stopping, then slow to a stop. All riders behind you should pass the message on, and slowly come to a stop as the rider in front of them does. Students should practice coming to a stop using their brakes, and not taking their feet off the pedals until they have come to a complete stop.
- **Stopping 2x2:** Teach students to stop in pairs so that two riders are stopped next to each other, thus cutting the length of the line in half (which makes it easier to communicate teaching points).
- **Scanning:** Once the group has stopped in 2x2 formation and returned their pedals to the power-pedal-position, call out scanning. This simulates re-entering the roadway by having them scan the behind over their left shoulder for traffic before starting.

Lesson 1 Modifications

These lessons are built around a 60-minute class period. If needed, you can modify the Skills Course portion to better fit the duration of your PE class. Here are a few suggestions:

Make it Shorter

- If needed, you can remove the scanning and signaling elements, and save those for subsequent lessons.

Make it Longer

- Add signaling “Stop” during Phase #1 or #2: right arm straight out and bent down 90 degrees. Students should also add verbally saying “stopping” while signaling and stopping.
- You can introduce slaloming from Lesson #2 by adding cones for the students to dodge after they exit the existing course and return to the start line.

Cleanup

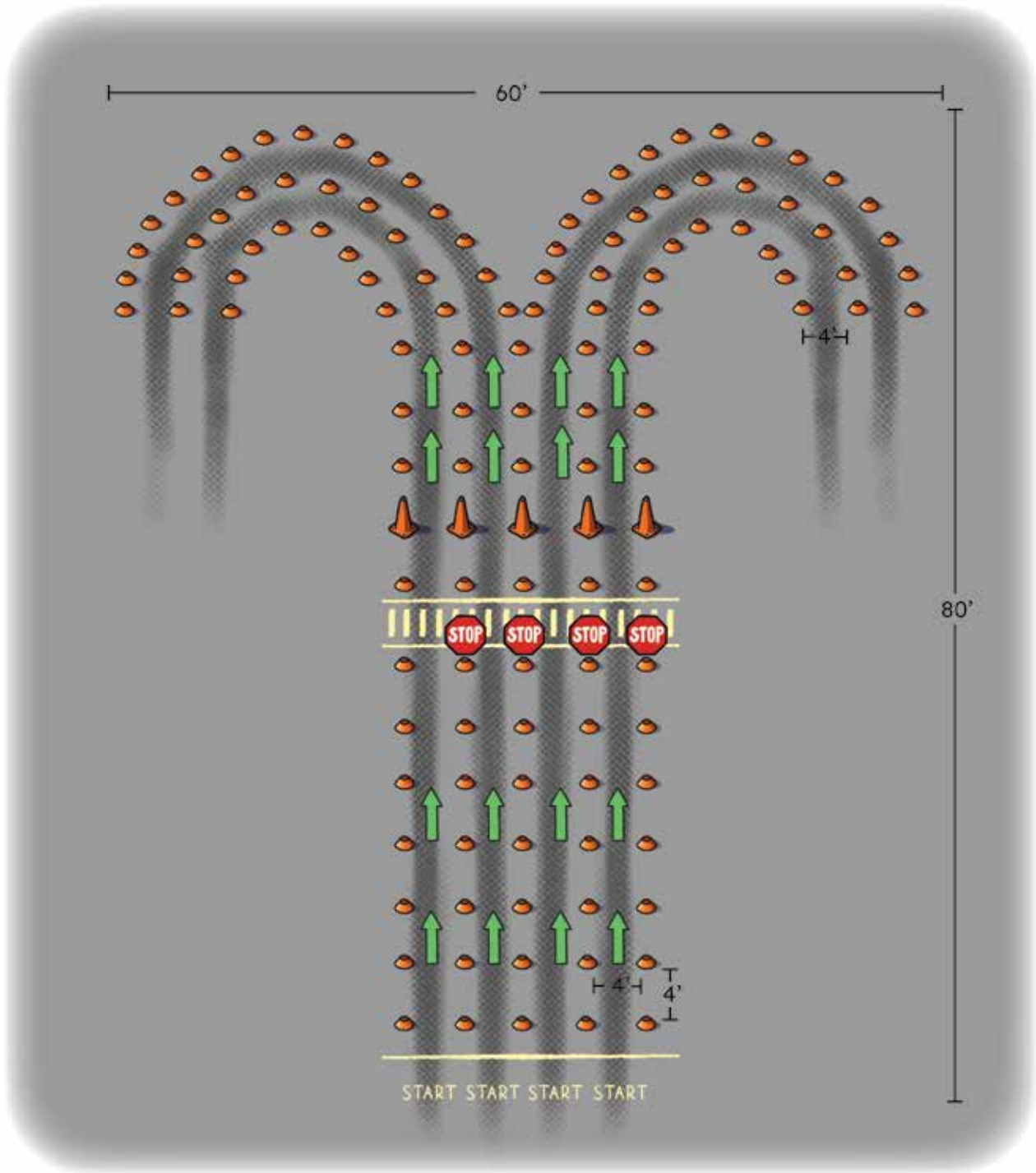
Once the lesson is finished, have the students help you pick up the cones, signs, etc. They should also return all their bicycles to the staging area, setting them up as they found them at the beginning of the lesson. If there is time, consider gathering everyone in a group and asking them the following questions:




1. What skills have you learned today? Can you describe them?
2. What was the hardest part of the lesson?
3. What was the most fun part of the lesson?

Finally, give them a brief description of the next lesson, and get them excited about the new skills that they will learn! Remind them that this whole series of lessons isn't just a fun school activity: this will help them safely navigate their neighborhoods and give them the freedom to get where they want to go.

Lesson 1 Course Layout

Here is a diagram of the Skills Course to help with setup. Feel free to modify as needed based on the space available at your school.



 = Big Cone  = Small Cone  = Chalk

LESSON 2

BIKE CONTROL

INTRODUCTION

We created this lesson to build off the basics that your students learned in Lesson #1. In Lesson #2, they will practice their starting, stopping, signaling, and turning on a more complex course. They will also learn how to yield to pedestrians and control their bicycle as they encounter their first obstacles. These skills will help them become more comfortable with real-world situations that they might encounter while riding through their neighborhood.

This lesson isn't just about learning skills or following the rules. Learning to control their bicycles confidently will give your students the freedom to get around their neighborhood and town under their own power. No more waiting for a ride, a late bus, or getting stuck in traffic.

Objectives

After completing this lesson, your students will have mastered the following new skills:



Yielding

Recognizing a yield sign, and understanding that it means that they must stop here to let pedestrians and motor vehicles cross.



Slaloming

Avoiding obstacles by keeping their pedals flat and leaning back and forth instead of turning their handlebars.



Flat Pedal Gliding

Coasting with their pedals level, both seated and standing, to help them better avoid obstacles and absorb bumps.

PREPARATION

Materials

For this lesson, you will need the following materials:

- A bicycle for every student
- A helmet for every student or
 - Hair nets for every student if sharing helmets
 - Trash can for hair nets
- 1 stop sign
- 1 yield sign
- 3 big cones
- 82 small cones
- Directional arrows
- Sidewalk chalk
- Bicycle floor pump
- Chain lube and rags
- Large adjustable wrench
- Allen wrench multi-tool

small cone



big cone



Logistics

To teach the lesson you will also need the following:

- A secure paved space on your school campus. This could be a blacktop playground or parking lot.
- At least 3 volunteer assistants: 2 for the Learner's Course, and 1 for the Group Ride. More assistants will allow a better student to adult ratio. See [Campus Support Guide](#) guide for tips on how to find assistants. See Page 29 for how to adjust the lesson with fewer assistants.



Classroom Prep

In the days leading up to the lesson, work with the classroom teacher on the following preparations:

1. Send home [Parent Notification Flier](#) to remind students and parents to bring their bikes on the day of the lesson, and to request parent volunteers.
2. Have all students watch:
 - For 5-9 year olds: https://www.pedbikeinfo.org/bicyclesaferjourney/el_en.html
 - For 10-14 year olds: https://www.pedbikeinfo.org/bicyclesaferjourney/mi_en.html



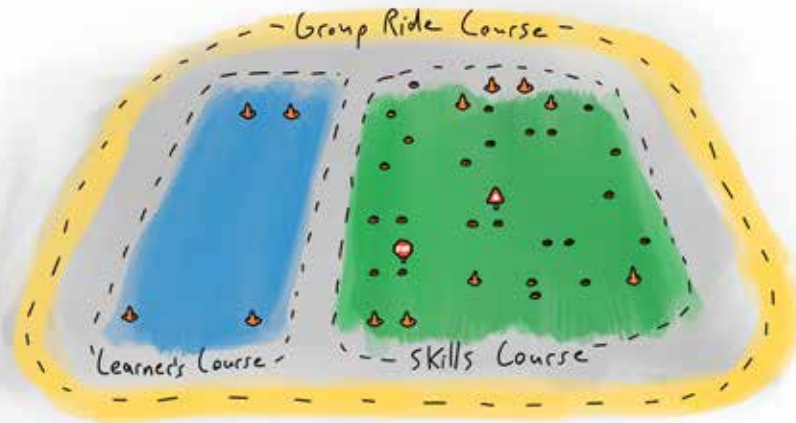
Structure

This lesson is designed around a 60-minute class period, though it can be modified based on your desired duration (see page 33). The structure is very similar to Lesson #1:

- **Pre-Lesson Instruction** (10 min)
Walk students through the bike and safety checks on **pages 11-15 in Lesson 1**.
- **Course Assignment** (10 min)
Divide students between courses based on skill level.
- **Lesson** (35 min)
Instruct students on the core skills of the lesson, with those on the Skills and Group Ride Courses flip flopping halfway through.
- **Cleanup** (5 min)
Gather bikes and helmets and discuss lessons learned.

Courses

During the Lesson period, students will ride one of these three courses:



Learner's Course

Here, the students who do not yet feel comfortable riding a bicycle can practice balance and pedaling with the help of your assistants.

Skills Course

This is the backbone of the lesson. Students will navigate obstacles, practicing skills from the Objectives as well as those from previous lessons.

Group Ride Course

As they wait for their turn on the skills course, students will go on an assistant-led loop ride, practicing skills from previous lessons.

Setup

On the day of the lesson, 30-40 minutes before the students arrive, work with your volunteer assistants to set up the three courses using cones, chalk, directional arrows, and traffic signs. You will also need to designate an area to stage bicycles and helmets. See the end of this lesson plan for a detailed diagram of the Skills Course, and page 19 for a detailed diagram of the Learner's Course.

LESSON 2

Course Assignment

After completing the safety checks from Lesson #1, it is time to start the lesson. Divide your students into two groups:



Those who know how to ride



Those who are still learning to ride

Use the following steps to do this:

1. Tell the students, “If you know how to ride a bike, join us for quick lap around the lesson area.” Have any students who do not join this lap move to the Learner’s Course.
2. If any of the students who did join the lap are clearly still struggling to ride, have them also join the Learner’s Course.
3. If you have two or more assistants, split the remaining students who did complete the lap successfully into two groups. One will proceed to the Skills Course, while the other will continue riding laps with an assistant as part of the Group Ride. Halfway through the lesson, these two groups will switch areas.
4. If you only have one assistant, drop the Group Ride and have all the students who successfully completed the quick lap proceed to the Skills Course.

Starting The Lesson

Instruction will now begin simultaneously on all of the courses. We suggest having the PE teacher manage the Skills Course, the classroom teacher or an assistant manage the Learner’s Course, and a third assistant manage the Group Ride. Additional assistants can help on the Learner’s Course, or in specific places on the Skills Course as noted below.

Here is a breakdown of how to run all three of these courses:

1. Learner’s Course: **pages 17-19 in Lesson 1**
2. Skills Course: pages 30-31
3. Group Ride: page 32

Lesson 2 Skills Course Instruction

The Skills Course is where you will teach the primary skills of this lesson: yielding, slaloming, and flat pedal gliding. Halfway through the class, have the students on the Skills Course switch places with those in the Group Ride.

Before students start riding the course, have them watch you ride through it once. Narrate what you are doing as you pedal the course, highlighting where they should be practicing specific skills. We have underlined these skills in the Directions. Once you have finished, have the students ride through the course one at a time, waiting to start until the student in front of them has reached the stop sign.

Objectives

This lesson will cover the following new skills:

Slaloming

Leaning your bike back and forth to steer around obstacles, rather than turning your handlebars. Pedals should be kept level.

Flat Pedal Glide

Carrying enough speed so that you can coast, while also keeping your pedals level.

Yielding

Stopping at a yield sign if there is traffic or a pedestrian waiting to cross.

Setup

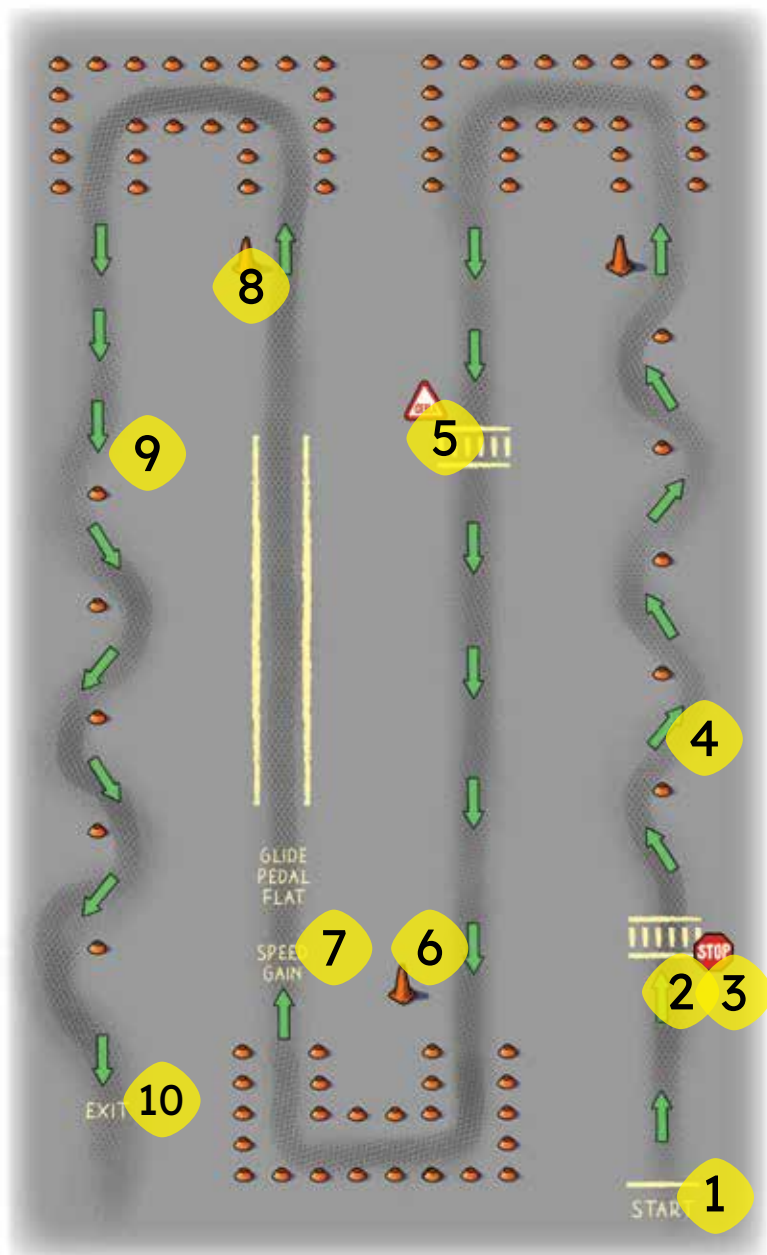
If you have enough assistants, have two act as pedestrians at the two crosswalks. They should randomly cross in front of students, forcing them to yield or stop depending on the signage at that crosswalk. Have your students line up at the start line.

directions continued on next page



Directions

1. Start on the start line in the Power Pedal Position.
2. Ride to the stop sign, coming to a complete stop. Return pedals to the Power Pedal Position.
3. Look left. Look right. Look left again. Do not cross if a pedestrian is in the crosswalk or waiting to cross.
4. Ride into the Slalom Section. Slalom between the small cones. When you pass the large cone, signal a left turn, holding the signal for 2-3 seconds, then putting your hands on the handlebars to make turn. Don't signal while turning.
5. When you reach the crosswalk, yield if a pedestrian is walking across.
6. When you pass the large cone, signal right, holding the signal for 2-3 seconds, then putting your hands on the handlebars to make turn. Don't signal while turning.
7. Ride back towards the top of the course in a straight line, keeping your tires between the two lines of chalk. Flat Pedal Glide for as much of this section as possible.
8. When you pass the large cone, signal a left turn, holding the signal for 2-3 seconds, then putting your hands on the handlebars to make turn. Don't signal while turning.
9. Ride into the Slalom Section. Slaloming around the small cones. Once you have mastered slaloming, you can practice the Flat Pedal Glide here as well.
10. Exit the course and return to the start.



Lesson 2 Group Ride Instruction

The Group Ride Course is where an assistant takes the half of the class that is not participating in the Skills Course on follow-the-leader ride around the lesson area. Students should follow the assistant assigned to lead this ride. Maintain *1-2 bike lengths* between riders. For this lesson, have the assistant call out the following skills as they ride around the lesson area:

- **Starting/Stopping:** Call out “stopping,” then slow to a stop. All riders behind you should pass the message on, and slowly come to a stop as the rider in front of them does. They should also signal “stopping:” putting their left arm out, with their forearm pointed down at a 90 degree angle.
- **Signaling:** Whenever the group is approaching a turn, call out “left turn” or “right turn,” and all riders should signal appropriately.
- **Scanning:** Call out “scanning,” and all students should practice over their left shoulder for traffic, while still riding in a straight line.

Once the second group of students who has already completed the Skills Course rotates to the Group Ride, add in the following skills to call out during the ride:

- **Slalom:** On a straight stretch of the ride, call out “slalom,” and the students should practice leaning right and left to gently weave their bikes left and right.
- **Flat Pedal Glide:** Call out “flat pedal glide,” and all the students should stop pedaling and keep their pedals level until you call out “pedal.”

Lesson 2 Modifications

These lessons are built around a 60-minute class period. If needed, you can modify the Skills Course portion to better fit the duration of your PE class. Here are a few suggestions:

Make it Shorter

- Remove the stop sign and crosswalk before the first slalom section.
- Simplify the course by making it a single oval instead of an “M”:
 - Include the slalom and stop sign on one of the longer sides of the oval.
 - Include the crosswalk/yield and straight line riding on the other side.
 - Partway through the lesson, have them switch directions so that they have practice signaling both ways.

Make it Longer

- Make the course longer by adding another crosswalk and stop or yield sign after the Flat Pedal Glide section.
- Make the course longer by adding one of the following to the final leg:
 - The rock dodge from Lesson #6.
 - A scanning element from Lesson #1. Have an assistant stand at the final turn and hold up a specific number of fingers for students to look back over their shoulder at and call out.

Cleanup

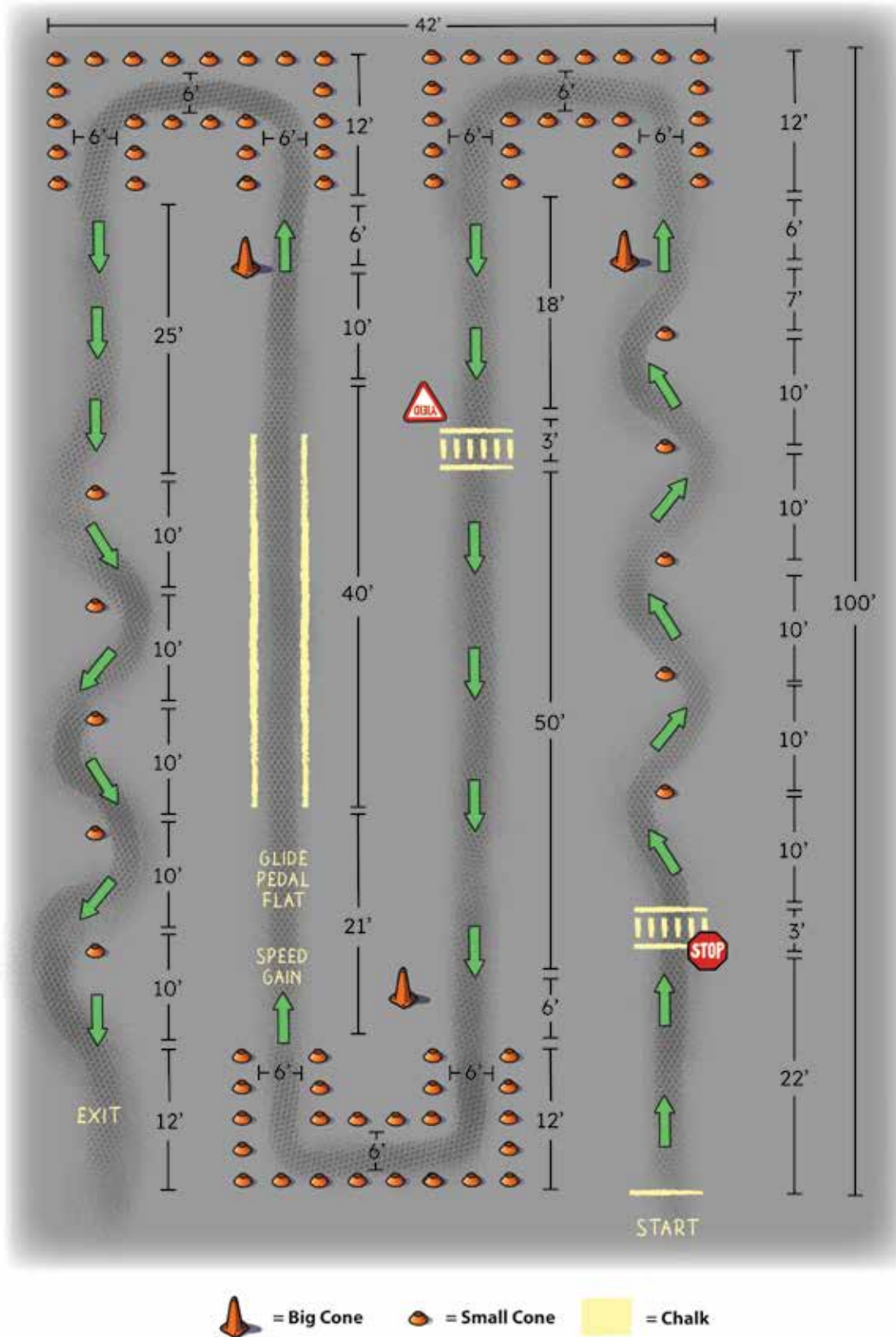
Once the lesson is finished, have the students help you pick up the cones, signs, etc. They should also return all their bicycles to the staging area, setting them up as they found them at the beginning of the lesson. If there is time, consider gathering everyone in a group and asking them the following questions:

1. What skills have you learned today? Can you describe them?
2. What was the hardest part of the lesson?
3. What was the most fun part of the lesson?

Finally, give them a brief description of the next lesson, and get them excited about the new skills that they will learn! Remind them that this whole series of lessons isn't just a fun school activity: this will help them safely navigate their neighborhoods and give them the freedom to get where they want to go.

Lesson 2 Skills Course Layout

Here is a diagram of the Skills Course to help with setup. Feel free to modify as needed based on the space available at your school.



LESSON #3

DRIVEWAYS

INTRODUCTION

We created this lesson to build off of the basics that your students learned in Lessons #1 and #2. In Lesson #3, they will practice their turn signaling and yielding, while also learning how to properly exit a driveway and enter the street. This real-world scenario is often the first test that they will encounter when leaving their homes by bike. In learning how to navigate this hurdle, they will have taken another step towards gaining the freedom to explore their neighborhood under their own power.

Objectives

After completing this lesson, your students will have mastered the following new skills:



Exiting Driveways

Safely scanning the road in each direction before pedaling out of a driveway.



Signaling

Properly indicating turns by taking a hand off the bars to signal, all in advance of the actual turn.



Shifting

Anticipating the need to shift gears based on approaching changes in terrain.

PREPARATION

Materials

For this lesson, you will need the following materials:

- A bicycle for every student
- A helmet for every student or
 - Hair nets for every student if sharing helmets
 - Trash can for hair nets
- 1 stop sign
- 6 big cones
- 140 small cones
- Directional arrows
- Sidewalk chalk
- Bicycle floor pump
- Chain lube and rags
- Large adjustable wrench
- Allen wrench multi-tool
- Safety vests for half the class

small cone



big cone



Logistics

To teach the lesson you will also need the following:

- A secure paved space on your school campus. This could be a blacktop playground or parking lot.
- At least 3 volunteer assistants: 2 for the Learner's Course, and 1 for the Group Ride. More assistants will allow a better student to adult ratio. See [Campus Support Guide](#) guide for tips on how to find assistants. See Page 38 for how to adjust the lesson with fewer assistants.



Classroom Prep

In the days leading up to the lesson, work with the classroom teacher on the following preparations:

1. Send home [Parent Notification Flier](#) to remind students and parents to bring their bikes on the day of the lesson, and to request parent volunteers.
2. Have all students watch:
 - For 5-9 year olds: https://www.pedbikeinfo.org/bicyclesaferjourney/el_en.html
 - For 10-14 year olds: https://www.pedbikeinfo.org/bicyclesaferjourney/mi_en.html



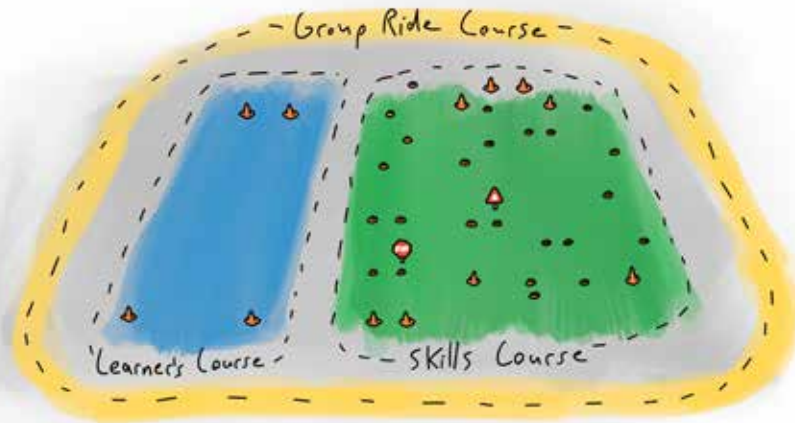
Structure

This lesson is designed around a 60-minute class period, though it can be modified based on your desired duration (see page 42). The structure is very similar to Lesson #1:

- **Pre-Lesson Instruction** (10 min)
Walk students through the bike and safety checks on **pages 11-15 in Lesson 1**.
- **Course Assignment** (10 min)
Divide students between courses based on skill level.
- **Lesson** (35 min)
Instruct students on the core skills of the lesson, with those on the Skills and Group Ride Courses flip flopping halfway through.
- **Cleanup** (5 min)
Gather bikes and helmets and discuss lessons learned.

Courses

During the Lesson period, students will ride one of these three courses:



Learner's Course

Here, the students who do not yet feel comfortable riding a bicycle can practice balance and pedaling with the help of your assistants.

Skills Course

This is the backbone of the lesson. Students will navigate obstacles, practicing skills from the Objectives as well as those from previous lessons.

Group Ride Course

As they wait for their turn on the skills course, students will go on an assistant-led loop ride, practicing skills from previous lessons.

Setup

On the day of the lesson, 30-40 minutes before the students arrive, work with your volunteer assistants to set up the three courses using cones, chalk, directional arrows, and traffic signs. You will also need to designate an area to stage bicycles and helmets. See the end of this lesson plan for a detailed diagram of the Skills Course, and page 19 for a detailed diagram of the Learner's Course.

LESSON 3

Course Assignment

After completing the safety checks from Lesson #1, it is time to start the lesson. Divide your students into two groups:



Those who know how to ride



Those who are still learning to ride

Use the following steps to do this:

1. Tell the students, “If you know how to ride a bike, join us for quick lap around the lesson area.” Have any students who do not join this lap move to the Learner’s Course.
2. If any of the students who did join the lap are clearly still struggling to ride, have them also join the Learner’s Course.
3. If you have two or more assistants, split the remaining students who did complete the lap successfully into two groups. One will proceed to the Skills Course, while the other will continue riding laps with an assistant as part of the Group Ride. Halfway through the lesson, these two groups will switch areas.
4. If you only have one assistant, drop the Group Ride and have all the students who successfully completed the quick lap proceed to the Skills Course.

Starting The Lesson

Instruction will now begin simultaneously on all of the courses. We suggest having the PE teacher manage the Skills Course, the classroom teacher or an assistant manage the Learner’s Course, and a third assistant manage the Group Ride. Additional assistants can help on the Learner’s Course, or in specific places on the Skills Course as noted below.

Here is a breakdown of how to run all three of these courses:

1. Learner’s Course: **pages 17-19 in Lesson 1**
2. Skills Course: pages 38-40
3. Group Ride: page 41

Lesson 3 Skills Course Instruction

The Skills Course is where you will teach the primary skills of this lesson: signaling and driveway exiting. Students will ride through the course in two phases, adding a new skill to practice in the second phase. Each phase should last 5-10 minutes, or until students have mastered the new skill introduced in that phase. Halfway through the class, have the students on the Skills Course switch places with those in the Group Ride.

Before students begin each phase, have them watch you ride the course. Narrate what you are doing as you ride. Highlight where they should be practicing each skill. We have underlined these skills in the Directions. Once you finish, have the students ride through the course one at a time, waiting to let the next student go until the one in front of them has left the first stop sign.

Phase #1: Signaling

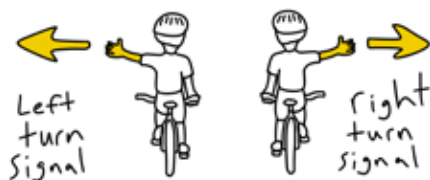
In Phase #1, students will practice signaling as they ride around the course.

Objective

This phase will reinforce the following skill:

Signaling

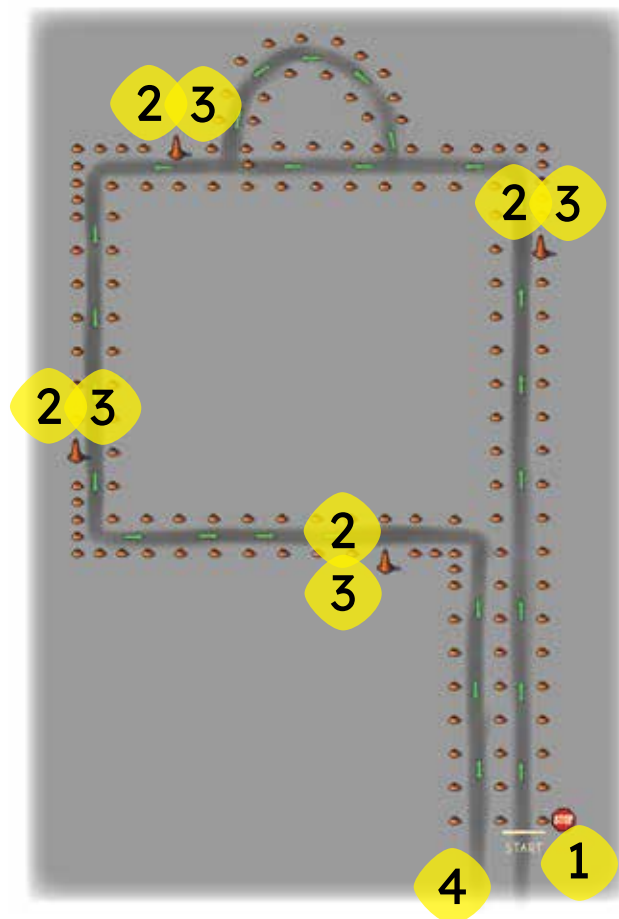
Riders should always signal before the turn, holding the signal for 2-3 seconds. This will allow them to return their hands to the handlebars to make the turn safely. To remember this, have students say the phrase “big and strong, hands back on” whenever signaling during this phase.



Directions

1. Start in Power Pedal Position.
2. Ride through the course, signaling when they reach the big cone before each turn.
3. Students who are not ready to signal can practice by briefly taking their hand off the handlebar.
4. Exit the course, then make a u-turn and try it again.

Once the students have mastered these signals and turns, proceed to Phase #2.



Phase #2: Driveway Exiting

In Phase #2, students will practice how to properly turn into and out of a driveway when there is cross traffic.

Objective

This phase will reinforce the following skill:

Driveway Exiting

How to safely scan the road in each direction before pedaling out of a driveway.

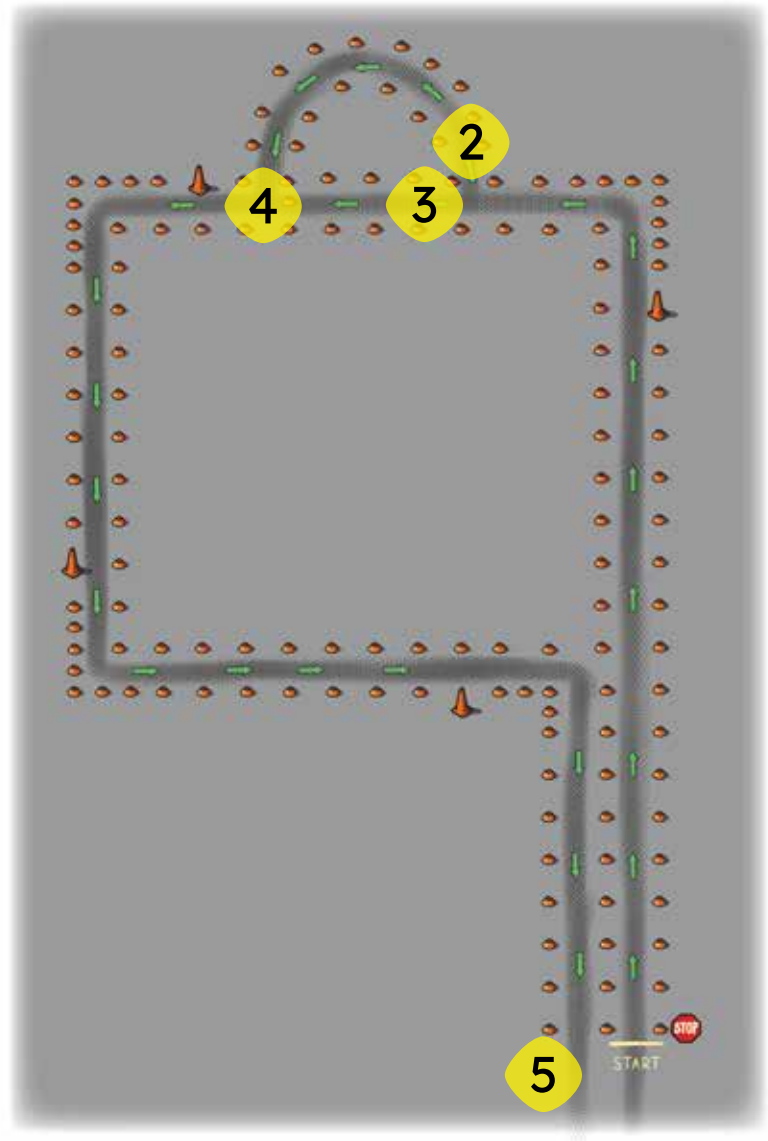
Setup

Assign half the students in the Skills Course to be “driveway riders”, identified by wearing a vest. The rest will be “traffic.”

Directions

1. Ride the course just as in Phase #1.
2. When “driveway riders” reach the top of course, they will proceed into the driveway.
3. “Traffic” will skip the driveway.
4. As they exit the driveway, “driveway riders” will yield, waiting for oncoming “traffic” to pass, and signaling before entering the road.
5. Exit the course, then make a u-turn and try it again.

After 4-5 minutes, ask all riders to stop/freeze where they are and switch roles: those who were “driveway riders” are now “traffic” and vice-versa.



Lesson 3 Group Ride Instruction

The Group Ride Course is where an assistant takes the half of the class that is not participating in the Skills Course on follow-the-leader ride around the lesson area. Students should follow the assistant assigned to lead this ride, always maintaining 1-2 bike lengths between them and the rider in front. For this lesson, have the assistant practice the skills learned in Lessons #1 and #2, incorporating in the following where appropriate:

- **Big Circle Riding:** This activity gives the assistant a great view of the group, while making it fun to practice certain skills. The group rides in one big circle so everyone can see everyone else. This is a great time to practice one handed riding as a precursor to signaling. The instructor can shout out, “everyone put your left hand into the circle”, and then, “everyone put your right hand outside the circle”. If students can’t yet do this, they can practice just lifting their hand off the handlebar for one second.
- **Grass Riding:** For a fun challenge, the assistant can lead students for a ride on a grassy field. Just make sure to check the grass for goathead thorns first to prevent flats. Grass riding makes it more difficult to pedal. If students’ bicycles have gears, do a few loops on the blacktop to explain how to shift gears:
 - Shift into a lower gear to make pedaling easier for an uphill or bumpy surface.
 - Shift into a higher gear to make pedaling harder when going downhill.
 - Always keep pedaling when you shift, but don’t pedal too hard or you could break your chain.
 - Another skill to practice on the blacktop and then the grass is standing up on the pedals while riding. This gives the students more leverage and makes it easier to pedal. It also lets their legs absorb some of the bumps from the field.

Lesson 3 Modifications

These lessons are built around a 60-minute class period. If needed, you can modify the Skills Course portion to better fit the duration of your PE class. Here are a few suggestions:

Make it Shorter

- Skip Phase #1, and just re-introduce Signaling at the start of Phase #2.
- Remove the leg of the P, turning the course into a simple square with a driveway. Have the students enter into the course at one of the corners.

Make it Longer

- On the final leg of the P, allow students to make a left turn and continue back onto the course, rather than exiting. Students entering the course from the start line will have to yield to those continuing around the course in a circle. This will prepare them for Lesson #4, when there will be more interaction between left and right turning traffic.
- Make the driveway longer, with the entrance and exit lining up with the corners of the top of the P.

Cleanup

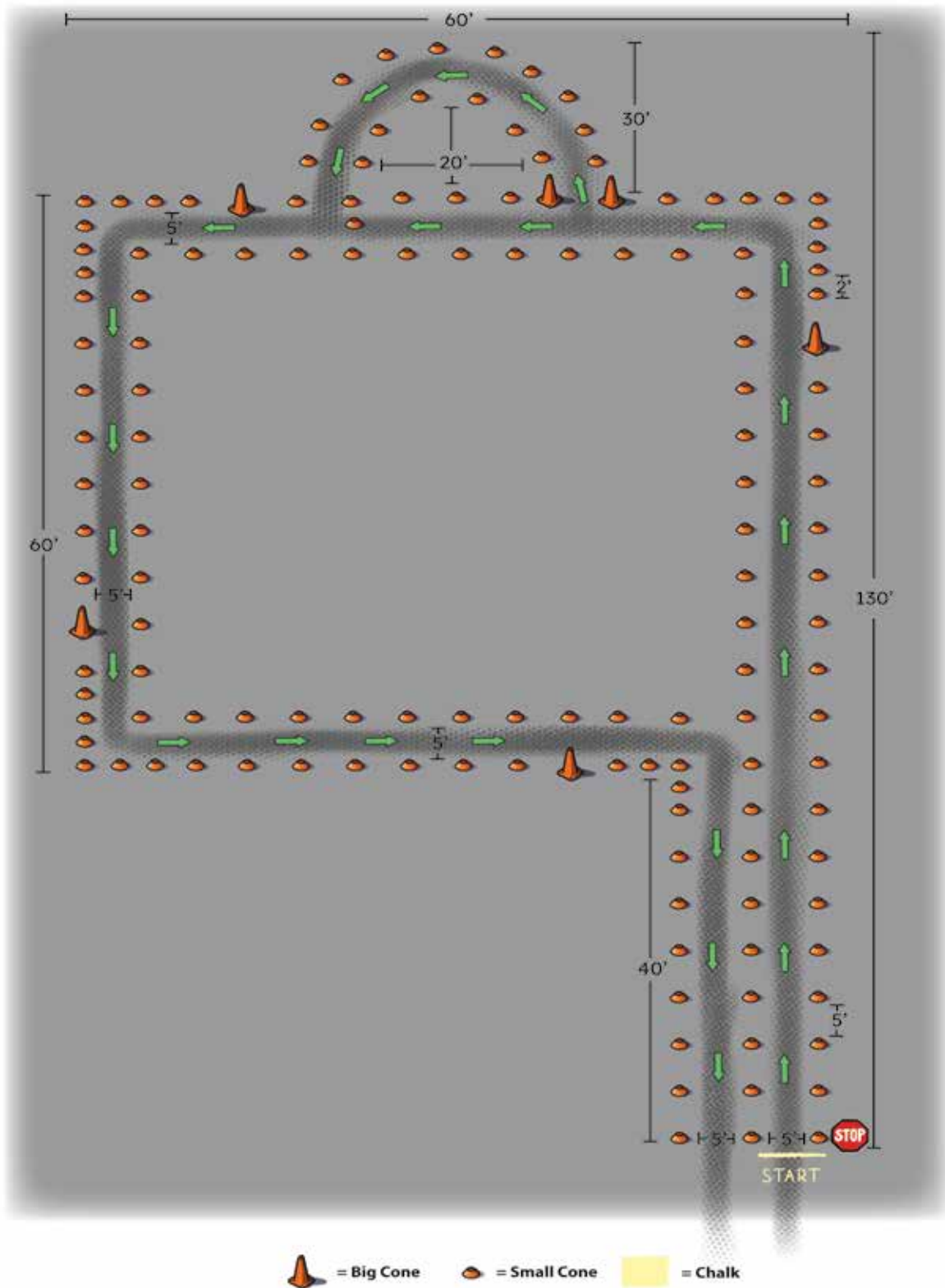
Once the lesson is finished, have the students help you pick up the cones, signs, etc. They should also return all their bicycles to the staging area, setting them up as they found them at the beginning of the lesson. If there is time, consider gathering everyone in a group and asking them the following questions:

1. What skills have you learned today? Can you describe them?
2. What was the hardest part of the lesson?
3. What was the most fun part of the lesson?

Finally, give them a brief description of the next lesson, and get them excited about the new skills that they will learn! Remind them that this whole series of lessons isn't just a fun school activity: this will help them safely navigate their neighborhoods and give them the freedom to get where they want to go.

Lesson 3 Skills Course Layout

Here is a diagram of the Skills Course to help with setup. Feel free to modify as needed based on the space available at your school.



LESSON #4

RIDE ON THE RIGHT

INTRODUCTION

We created this lesson to reinforce the signaling and yielding learned in the first three lessons, while also introducing the idea that students must always ride on the right side of the road or path. This course presents them with a real-world road scenario that weaves all of these skills together. Learning these skills in tandem will help your students be more confident in navigating the real-world roads and paths of their neighborhoods.

Objectives

After completing this lesson, your students will have mastered the following skills:



Riding on the Right

Learning to stay to the right hand side of the road and maintaining awareness of traffic flow.



Signaling

Properly indicating turns by taking a hand off the bars to signal, all in advance of the actual turn.



Yielding

Recognizing a yield sign, and understanding that it means that they must stop here to let pedestrians and motor vehicles cross.

PREPARATION

Materials

For this lesson, you will need the following materials:

- A bicycle for every student
- A helmet for every student or
 - Hair nets for every student if sharing helmets
 - Trash can for hair nets
- Safety vests for half the class
- 2 stop signs
- 2 yield signs
- 14 big cones
- 110 small cones
- Directional arrows
- Sidewalk chalk
- Bicycle floor pump
- Chain lube and rags
- Large adjustable wrench
- Allen wrench multi-tool

small cone



big cone



Logistics

To teach the lesson you will also need the following:

- A secure paved space on your school campus. This could be a blacktop playground or parking lot.
- At least 3 volunteer assistants: 2 for the Learner's Course, and 1 for the Group Ride. More assistants will allow a better student to adult ratio. See [Campus Support Guide](#) guide for tips on how to find assistants. See Page 47 for how to adjust the lesson with fewer assistants.



Classroom Prep

In the days leading up to the lesson, work with the classroom teacher on the following preparations:

1. Send home [Parent Notification Flier](#) to remind students and parents to bring their bikes on the day of the lesson, and to request parent volunteers.
2. Have all students watch:
 - For 5-9 year olds: https://www.pedbikeinfo.org/bicyclesaferjourney/el_en.html
 - For 10-14 year olds: https://www.pedbikeinfo.org/bicyclesaferjourney/mi_en.html



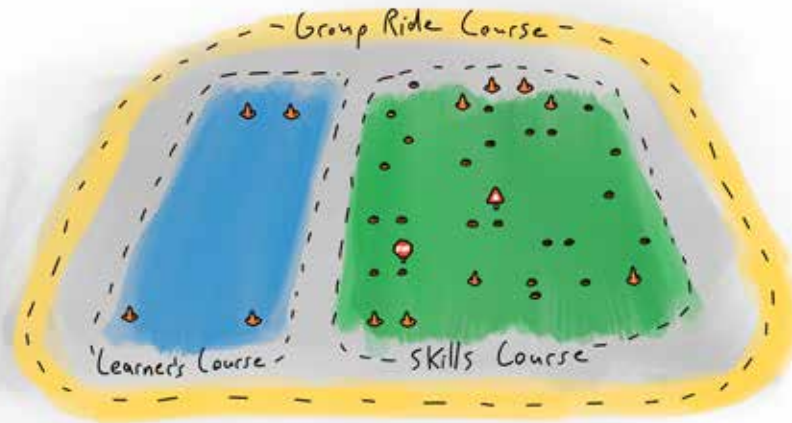
Structure

This lesson is designed around a 60-minute class period, though it can be modified based on your desired duration (see page 51). The structure is very similar to Lesson #1:

- **Pre-Lesson Instruction** (10 min)
Walk students through the bike and safety checks on **pages 11-15 in Lesson 1**.
- **Course Assignment** (10 min)
Divide students between courses based on skill level.
- **Lesson** (35 min)
Instruct students on the core skills of the lesson, with those on the Skills and Group Ride Courses flip flopping halfway through.
- **Cleanup** (5 min)
Gather bikes and helmets and discuss lessons learned.

Courses

During the Lesson period, students will ride one of these three courses:



Learner's Course

Here, the students who do not yet feel comfortable riding a bicycle can practice balance and pedaling with the help of your assistants.

Skills Course

This is the backbone of the lesson. Students will navigate obstacles, practicing skills from the Objectives as well as those from previous lessons.

Group Ride Course

As they wait for their turn on the skills course, students will go on an assistant-led loop ride, practicing skills from previous lessons.

Setup

On the day of the lesson, 30-40 minutes before the students arrive, work with your volunteer assistants to set up the three courses using cones, chalk, directional arrows, and traffic signs. You will also need to designate an area to stage bicycles and helmets. See the end of this lesson plan for a detailed diagram of the Skills Course, and page 19 for a detailed diagram of the Learner's Course.

LESSON 4

Course Assignment

After completing the safety checks from Lesson #1, it is time to start the lesson. Divide your students into two groups:



Those who know how to ride



Those who are still learning to ride

Use the following steps to do this:

1. Tell the students, “If you know how to ride a bike, join us for quick lap around the lesson area.” Have any students who do not join this lap move to the Learner’s Course.
2. If any of the students who did join the lap are clearly still struggling to ride, have them also join the Learner’s Course.
3. If you have two or more assistants, split the remaining students who did complete the lap successfully into two groups. One will proceed to the Skills Course, while the other will continue riding laps with an assistant as part of the Group Ride. Halfway through the lesson, these two groups will switch areas.
4. If you only have one assistant, drop the Group Ride and have all the students who successfully completed the quick lap proceed to the Skills Course.

Starting The Lesson

Instruction will now begin simultaneously on all of the courses. We suggest having the PE teacher manage the Skills Course, the classroom teacher or an assistant manage the Learner’s Course, and a third assistant manage the Group Ride. Additional assistants can help on the Learner’s Course, or in specific places on the Skills Course as noted below.

Here is a breakdown of how to run all three of these courses:

1. Learner’s Course: **pages 17-19 in Lesson 1**
2. Skills Course: pages 48-49
3. Group Ride: page 50

Lesson 4 Skills Course Instruction

The Skills Course is where you will teach the primary skills of this lesson: riding on the right, signaling, and yielding. Before students start riding the course, have them watch you ride it once. Narrate what you are doing as you pedal the course. Highlight where they should be practicing specific skills. We have underlined these skills in the Directions. Once you finish, have the students ride through the course one at a time, waiting to let the next student go until the one in front of them has reached the first corner of the course.

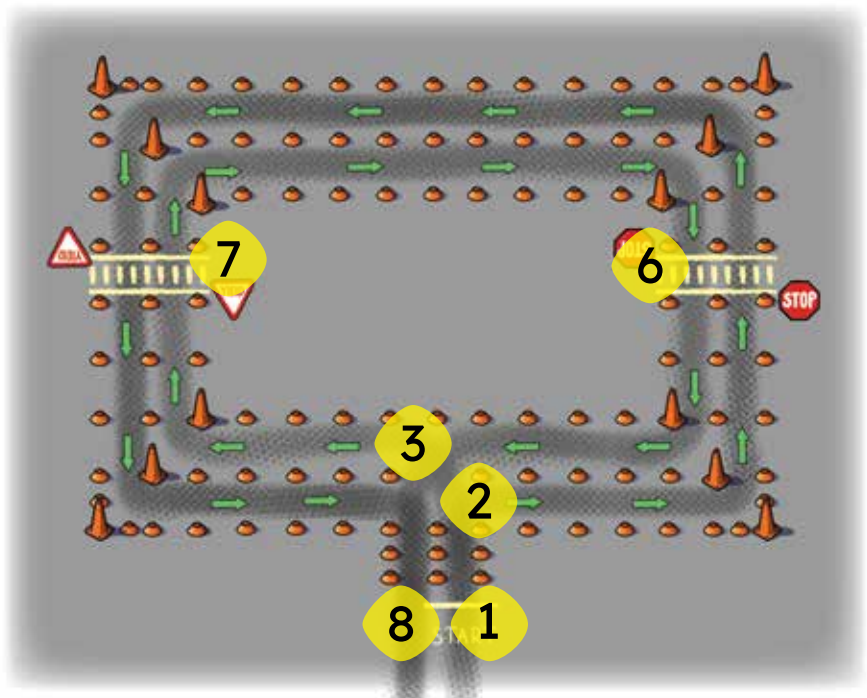
Halfway through the class, have the students on the Skills Course switch places with those in the Group Ride.

Setup

- Divide the students into two equal groups, and have half wear safety vests.
- The half with vests will ride clockwise on the outside of the course, the other half will ride counter clockwise on the inside of the course.
- After 5-10 minutes, have the groups exit the course and switch directions: those with vests will now ride clockwise on the inside of the course.
- Ideally, you will have 2 assistants for this course to pose as pedestrians at the two crossings, crossing randomly and forcing the students to stop and yield.

Directions

1. Line up at the driveway start line.
2. Those wearing vests will make a right turn out of the driveway onto the outside of the course.
3. Those not wearing vests will make a left turn out of the driveway onto the inside of the course.
4. Enter the course one at a time, looking left, then right, then left again for approaching riders before starting.
5. Before each turn, signal to the right. Hold this signal for 2-3 seconds, then put your hand back on the bars before executing the turn.
6. At the crosswalk after the stop sign, stop and look left, then right, then left again, waiting for the pedestrian assistant to cross.
7. At the crosswalk after the yield sign, stop and yield if a pedestrian is waiting to cross.
8. When the lesson is finished, all riders should exit the course through the driveway lane next to the start line.



Lesson 4 Group Ride Instruction

The Group Ride Course is where an assistant takes the half of the class that is not participating in the Skills Course on follow-the-leader ride around the lesson area. Students should follow the assistant assigned to lead this ride, always maintaining 1-2 bike lengths between them and the rider in front. For this lesson, have the assistant practice the skills listed in the first three lessons, adding the following skills with the students where appropriate:

- **Tight Turns:** Lead students around a pole or cone without stopping or putting their foot down. This requires riding slowly, which is more challenging than riding fast. Students increase their maneuvering capability when they practice tight turns.
- **Take It Wide:** Draw a 5' long angled line with chalk on the pavement. Tell students to “take it wide” by maneuvering their bicycle in a wide turn that allows them to cross the line at a perpendicular angle. This activity teaches students to always cross railroad tracks and driveway lips with their bike perpendicular to the obstacle.

Lesson 4 Modifications

These lessons are built around a 60-minute class period. If needed, you can modify the Skills Course portion to better fit the duration of your PE class. Here are a few suggestions:

Make it Shorter

- Remove the stop signs, yield signs, or both.

Make it Longer

- Convert the driveway entrance to the course into a small roundabout, and allow students to make u-turns.
- Have the driveway entrance act as a “quiet neighborhood street” and the main rectangle act as “busy streets.” Add a stop sign where the “neighborhood street” hits the “busy street.” Students must then stop, and look left-right-left, waiting for traffic on the “busy street” to clear before turning.

Cleanup

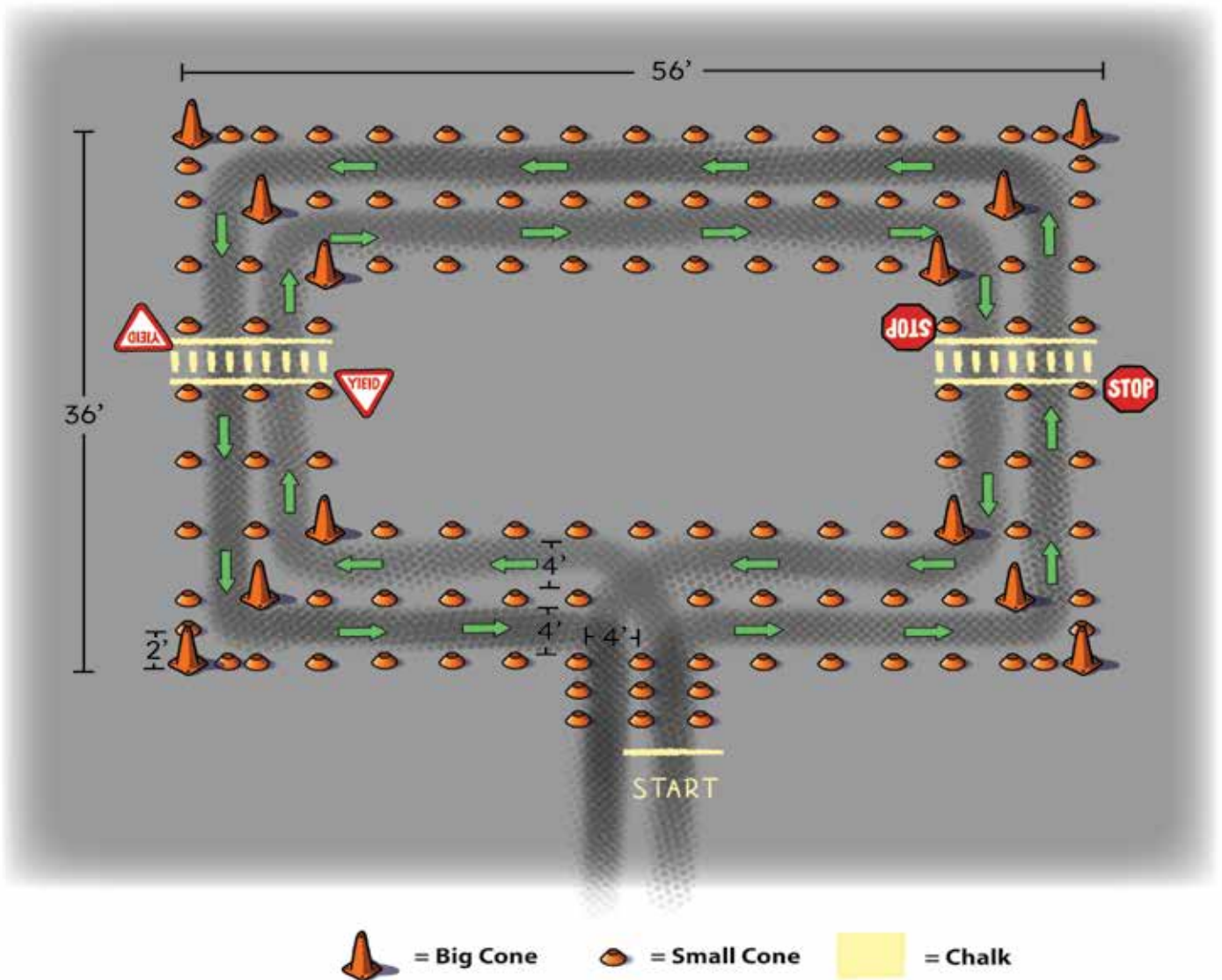
Once the lesson is finished, have the students help you pick up the cones, signs, etc. They should also return all their bicycles to the staging area, setting them up as they found them at the beginning of the lesson. If there is time, consider gathering everyone in a group and asking them the following questions:

1. What skills have you learned today? Can you describe them?
2. What was the hardest part of the lesson?
3. What was the most fun part of the lesson?

Finally, give them a brief description of the next lesson, and get them excited about the new skills that they will learn! Remind them that this whole series of lessons isn't just a fun school activity: this will help them safely navigate their neighborhoods and give them the freedom to get where they want to go.

Lesson 4 Skills Course Layout

Here is a diagram of the Skills Course to help with setup. Feel free to modify as needed based on the space available at your school.



LESSON #5

INTERSECTIONS

INTRODUCTION

Lesson #5 will be many of your students' first introduction to a four way intersection. They will learn how to safely navigate this common piece of infrastructure while making complete stops, establishing eye contact with other riders before crossing, signaling a turn, and yielding to other riders where appropriate.

This lesson isn't just about obeying traffic rules. It is about learning common courtesy and how to understand who has the right-of-way in a given traffic scenario. Being able to do this will help your students gain the freedom to move through their communities, while also being respectful members of that community.

Objectives

After completing this lesson, your students will have mastered the following skills:



Stopping at Stop Signs

Recognizing the need to stop at a stop sign, check both ways, and restart from the Pedal Power Position.



Communicating with Cross Traffic

Establishing eye contact with other vehicles at an intersection to signal intent to proceed.



Yielding

Understanding the order of right-of-way at an intersection.



Signaling

Recognizing a yield sign, and understanding that it means that they must stop here to let pedestrians and motor vehicles cross.

PREPARATION

Materials

For this lesson, you will need the following materials:

- A bicycle for every student
- A helmet for every student or
 - Hair nets for every student if sharing helmets
 - Trash can for hair nets
- 4 stop signs
- 4 yield signs
- 54 big cones
- 204 small cones
- Directional arrows
- Sidewalk chalk
- Bicycle floor pump
- Chain lube and rags
- Large adjustable wrench
- Allen wrench multi-tool



Logistics

To teach the lesson you will also need the following:

- A secure paved space on your school campus. This could be a blacktop playground or parking lot.
- At least 3 volunteer assistants: 2 for the Learner's Course, and 1 for the Group Ride. More assistants will allow a better student to adult ratio. See [Campus Support Guide](#) guide for tips on how to find assistants. See Page 55 for how to adjust the lesson with fewer assistants.



Classroom Prep

In the days leading up to the lesson, work with the classroom teacher on the following preparations:

1. Send home [Parent Notification Flier](#) to remind students and parents to bring their bikes on the day of the lesson, and to request parent volunteers.
2. Have all students watch:
 - For 5-9 year olds: https://www.pedbikeinfo.org/bicyclesaferjourney/el_en.html
 - For 10-14 year olds: https://www.pedbikeinfo.org/bicyclesaferjourney/mi_en.html



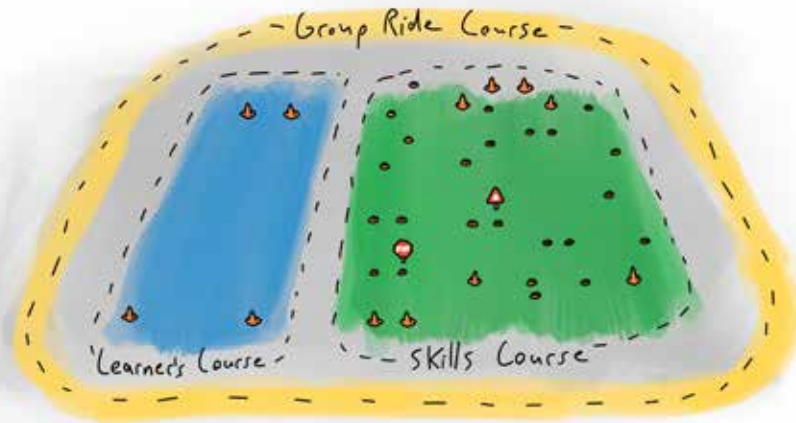
Structure

This lesson is designed around a 60-minute class period, though it can be modified based on your desired duration (see page 60). The structure is very similar to Lesson #1:

- **Pre-Lesson Instruction** (10 min)
Walk students through the bike and safety checks on **pages 11-15 in Lesson 1**.
- **Course Assignment** (10 min)
Divide students between courses based on skill level.
- **Lesson** (35 min)
Instruct students on the core skills of the lesson, with those on the Skills and Group Ride Courses flip flopping halfway through.
- **Cleanup** (5 min)
Gather bikes and helmets and discuss lessons learned.

Courses

During the Lesson period, students will ride one of these three courses:



Learner's Course

Here, the students who do not yet feel comfortable riding a bicycle can practice balance and pedaling with the help of your assistants.

Skills Course

This is the backbone of the lesson. Students will navigate obstacles, practicing skills from the Objectives as well as those from previous lessons.

Group Ride Course

As they wait for their turn on the skills course, students will go on an assistant-led loop ride, practicing skills from previous lessons.

Setup

On the day of the lesson, 30-40 minutes before the students arrive, work with your volunteer assistants to set up the three courses using cones, chalk, directional arrows, and traffic signs. You will also need to designate an area to stage bicycles and helmets. See the end of this lesson plan for a detailed diagram of the Skills Course, and page 19 for a detailed diagram of the Learner's Course.

LESSON 5

Course Assignment

After completing the safety checks from Lesson #1, it is time to start the lesson. Divide your students into two groups:



Those who know how to ride



Those who are still learning to ride

Use the following steps to do this:

1. Tell the students, “If you know how to ride a bike, join us for quick lap around the lesson area.” Have any students who do not join this lap move to the Learner’s Course.
2. If any of the students who did join the lap are clearly still struggling to ride, have them also join the Learner’s Course.
3. If you have two or more assistants, split the remaining students who did complete the lap successfully into two groups. One will proceed to the Skills Course, while the other will continue riding laps with an assistant as part of the Group Ride. Halfway through the lesson, these two groups will switch areas.
4. If you only have one assistant, drop the Group Ride and have all the students who successfully completed the quick lap proceed to the Skills Course.

Starting The Lesson

Instruction will now begin simultaneously on all of the courses. We suggest having the PE teacher manage the Skills Course, the classroom teacher or an assistant manage the Learner’s Course, and a third assistant manage the Group Ride. Additional assistants can help on the Learner’s Course, or in specific places on the Skills Course as noted below.

Here is a breakdown of how to run all three of these courses:

1. Learner’s Course: **pages 17-19 in Lesson 1**
2. Skills Course: pages 56-58
3. Group Ride: page 59

Lesson 5 Skills Course Instruction

The Skills Course is where you will teach the primary skills of this lesson: stopping at stop signs, communicating with cross traffic, signaling, and yielding. This lesson has two phases: one with a 4-way stop at the center of the course, and one with a 2-way stop. Each phase should take 5-10 minutes, or until the students have mastered the scenario in each phase. Halfway through the class, have the students on the Skills Course switch places with those in the Group Ride.

This is a choose-your-own-adventure course where students get to decide when they want to make a turn. As such, there are a few additional rules to explain to students before they begin.

Course Rules

1. Stay in the right lane at all times.
2. Stop at stop signs. Put a foot down and look left-right-left before continuing.
3. Make eye contact with other riders in the intersection, as you would with all cars, bikes, and pedestrians when on a real road.
4. If you are turning at a stop sign, always come to a stop, signal, then put your hand back on the handlebars before turning.

With those rules in mind, ride the course once for your students to demonstrate the proper flow. Start from one of the stop signs at the central 4-way intersection, proceed to the outer loop of the course, and make a full loop before returning back to the central intersection. As you ride the course, stop at each intersection, explaining the following Right-of-Way Guidelines for them to follow:

Right-of-Way Guidelines

1. Whoever arrives at the stop sign first has the right-of-way. This means that they may proceed through the intersection first.
2. If two riders arrive at a stop sign at the same time, then the rider on the right has the right-of-way.
3. At yield signs, you can turn right or left. Make sure that there are no riders coming from your right or left before turning. They do not have a stop sign, and therefore have the right-of-way.
4. If you are on the outside lane of the course turning left towards the center, you must make sure there are no oncoming riders. They do not have a stop sign, and therefore have the right-of-way.

Then have the students line up and proceed through the course in the following phases.

Phase #1: Four-Way Stop at Center Intersection

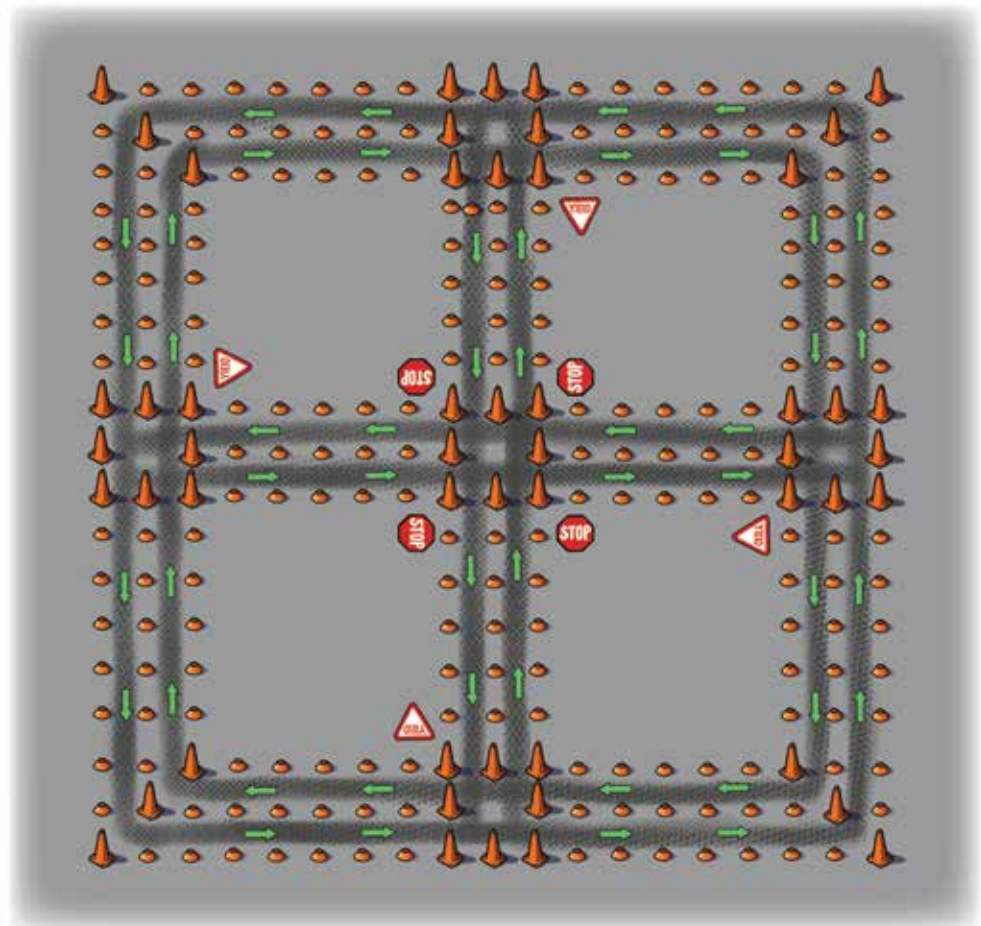
In this phase, students will encounter a four way stop at the center of the intersection, teaching them how to observe the proper right-of-way at this type of intersection.

Setup

- Divide your students into 4 equally-sized groups of riders, and have the groups line up in the right lane at each of the four stop signs.
- Remind them that they can only proceed straight through the central intersection, but may turn in either direction at any of the outer intersections.
- Stay near the center intersection, and have any assistants position themselves at each of the four outer intersections.
- All instructors should monitor the following:
 - Make sure students are yielding and following the right-of-way properly.
 - Make sure students are signalling properly before all turns.
 - Slow down riders who are going too fast.
 - Ensure that students are making eye contact with all other riders at an intersection before proceeding.
 - Encourage students not to just stay on the outer loop of the course, but to make turns back towards the center intersection.

Directions

1. Ride through the course, choosing which way to turn as you go.
2. Make sure to signal before all turns.
3. Obey all traffic signs.



Phase #2: Two-Way Stop at Center Intersection

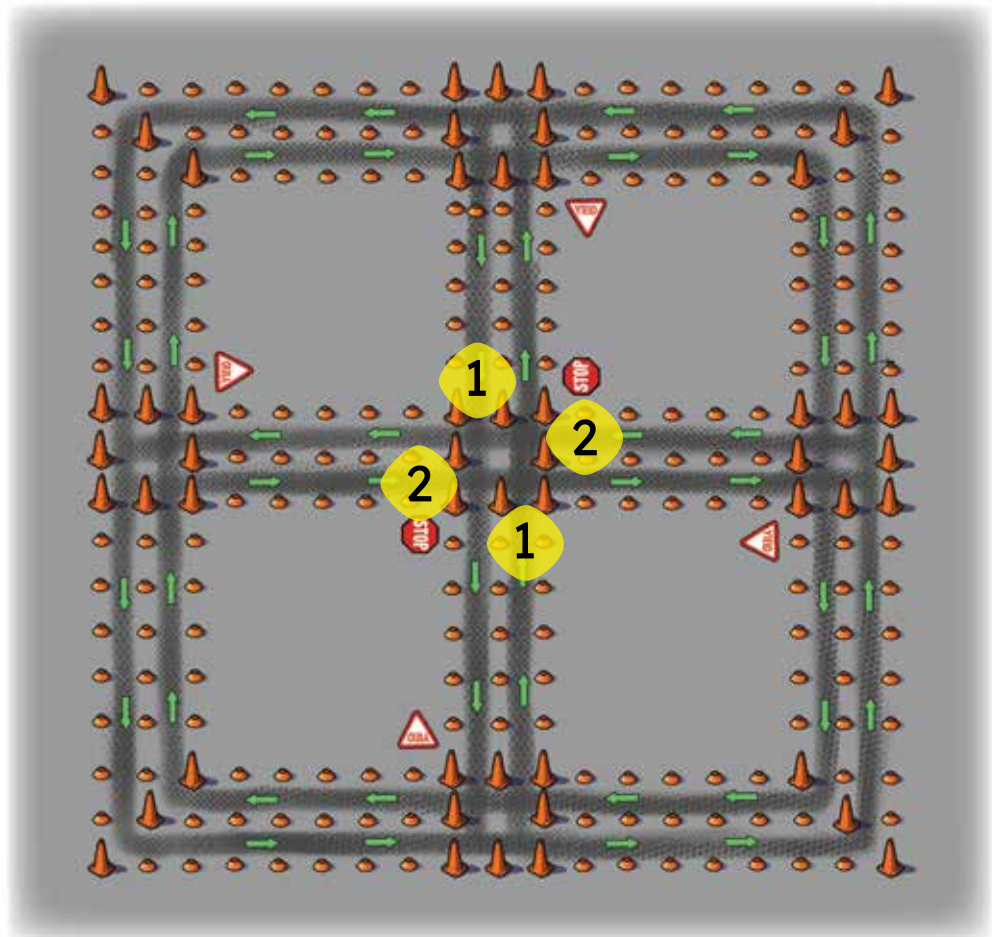
In this phase, students will encounter a two way stop at the center of the intersection, teaching them how to observe the proper right-of-way at this type of intersection.

Setup

- Remove two of the four stop signs in the central intersection, making it so that only one of the “streets” has to stop.
- Divide your students into 4 equally-sized groups. Have each group line up in one of the right lanes at the central intersection.
- Explain that:
 - The traffic coming through the intersection on one of these streets doesn’t have to stop.
 - The center intersection has no turning restriction: riders may turn left, right or go straight.
 - Signaling before turning is critical. Ask them, “What might happen if a left-turning rider does not signal for an oncoming rider going straight?” Answer: a collision.
 - Turning traffic must always yield to traffic going straight.
 - It is very important to signal well in advance of turning, especially in the central intersection. Riders without a stop sign can’t stop here and think about whether they want to turn. They have to signal and commit early.
- You and your assistants should monitor each intersection as in Phase #1.

Directions

1. Riders on the street with no stop signs begin riding the course.
2. Those at the stop signs can proceed once all of the crossing traffic has cleared.
3. Make sure to signal before all turns.
4. Obey all traffic signs.



Lesson 5 Group Ride Instruction

The Group Ride Course is where an assistant takes the half of the class that is not participating in the Skills Course on follow-the-leader ride around the lesson area. Maintain *1-2 bike lengths* between riders. For this lesson, have the assistant call out the following skills as they ride around the lesson area:

- **Starting/Stopping:** The assistant can call out “stopping,” then slow to a stop. All riders behind them should pass the message on, and slowly come to a stop as the rider in front of them does.
- **Signaling:** Whenever the group is approaching a turn, call out “left turn” or “right turn,” and all riders should signal appropriately.
- **Scanning:** Call out “scanning,” and all students should practice looking over their left shoulder, while still riding in a straight line.
- **Slalom:** On a straight stretch of the ride, call out “slalom,” and the students should practice leaning right and left to gently weave their bikes left and right.
- **Flat Pedal Glide:** Call out “flat pedal glide,” and all the students should stop pedaling, keep their pedals level, and coast until you call out “pedal.”

If needed, you can also add in the following scenarios:

- **Big Circle Riding.** This activity gives the assistant a great view of the group, while making it fun to practice certain skills. The group rides in one big circle so everyone can see everyone else. This is a great time to practice one handed riding as a precursor to signaling. The instructor can shout out, “everyone put your left hand into the circle”, and then, “everyone put your right hand outside the circle”. If students can’t yet do this, they can practice just lifting their hand off the handlebar for one second.
- **Grass Riding:** For a fun challenge, the assistant can lead students for a ride on a grassy field. Just make sure to check the grass for goathead thorns first to prevent flats. Grass riding makes it more difficult to pedal. If students’ bicycles have gears, do a few loops on the blacktop to explain how to shift gears:
 - Shift into a lower gear to make pedaling easier for an uphill or bumpy surface.
 - Shift into a higher gear to make pedaling harder when going downhill.
 - Always keep pedaling when you shift, but don’t pedal too hard or you could break your chain.
 - Another skill to practice on the blacktop and then the grass is standing up on the pedals while riding. This gives the students more leverage and makes it easier to pedal. It also lets their legs absorb some of the bumps from the field.

Lesson 5 Modifications

These lessons are built around a 60-minute class period. If needed, you can modify the Skills Course portion to better fit the duration of your PE class. Here are a few suggestions:

Make it Shorter

- Remove the top half of the course, making the central intersection a “T” or “three-way” instead of a 4-way.
- Remove a lane on the outside of the course, making all of the outside intersections right turn only.

Make it Longer

- Convert one of the outside intersections into a 3-way roundabout.
- Add a driveway to the top of the course, similar to Lesson #3. Students can enter/exit as they did in that lesson, practicing yielding to cross-traffic.

Cleanup

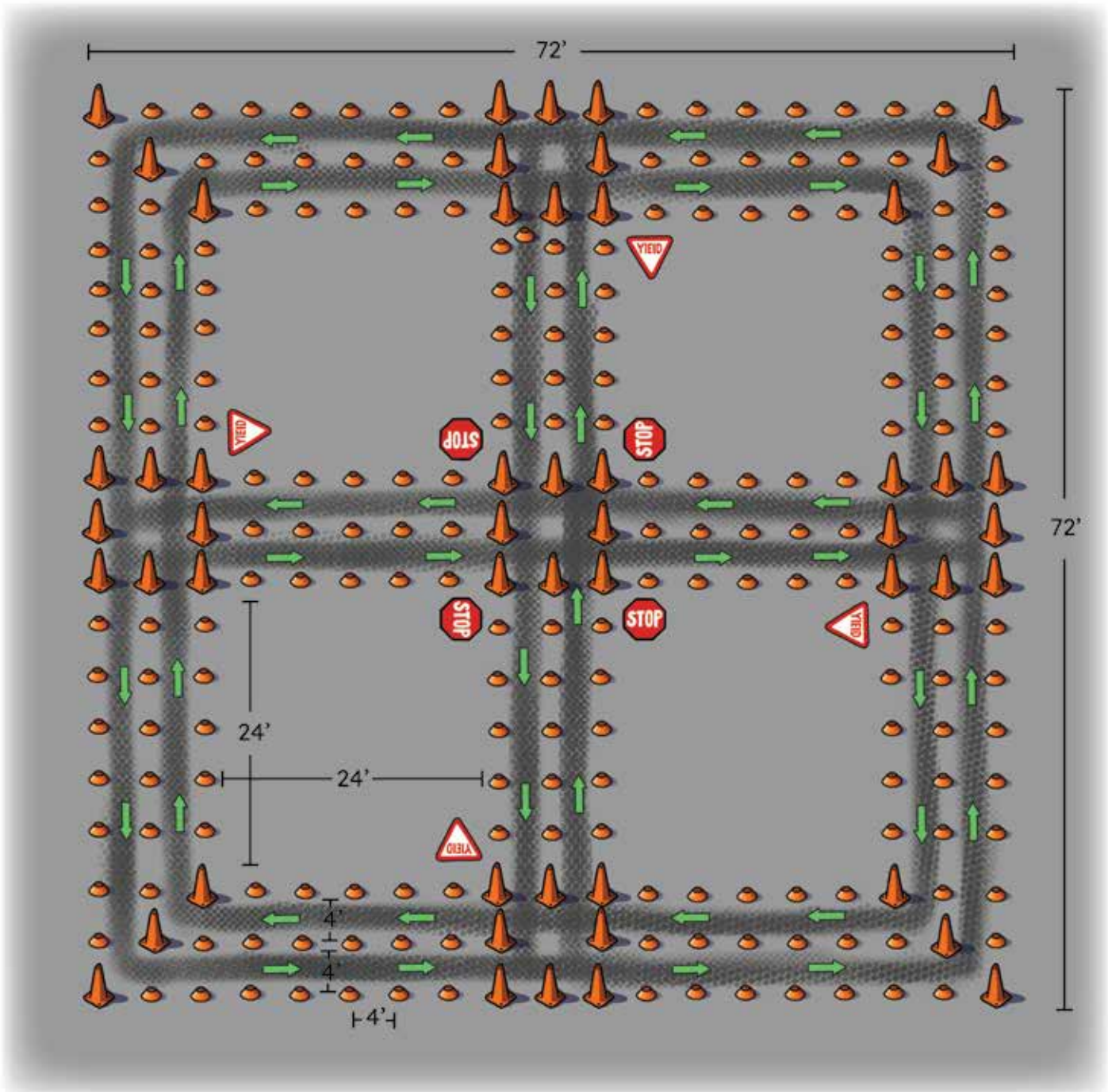
Once the lesson is finished, have the students help you pick up the cones, signs, etc. They should also return all their bicycles to the staging area, setting them up as they found them at the beginning of the lesson. If there is time, consider gathering everyone in a group and asking them the following questions:




1. What skills have you learned today? Can you describe them?
2. What was the hardest part of the lesson?
3. What was the most fun part of the lesson?

Finally, give them a brief description of the next lesson, and get them excited about the new skills that they will learn! Remind them that this whole series of lessons isn't just a fun school activity: this will help them safely navigate their neighborhoods and give them the freedom to get where they want to go.

Lesson 5 Skills Course Layout

Here is a diagram of the Skills Course to help with setup. Feel free to modify as needed based on the space available at your school.



-  = Big Cone
-  = Small Cone
-  = Chalk

LESSON #6

ADVANCED SKILLS

INTRODUCTION

We designed this lesson to combine many of the skills learned in the previous five lessons into a single course. In addition to slaloming, flat pedal gliding, stopping, signaling, and yielding, students will also practice riding perpendicularly when crossing obstacles like railroad tracks, riding with one hand, and riding while standing up.

All together, this lesson will help them become more comfortable linking together a variety of skills simultaneously, something they will frequently encounter on a real street. Doing this will help them become more confident in their abilities to freely get around and explore their neighborhoods.

Objectives

After completing this lesson, your students will have mastered the following new skills:



Perpendicular Crossing

Successfully crossing railroad tracks and cracks in the pavement by approaching them at a 90 degree angle.



One Handed Riding

Riding with one hand will help students gain better balance, and help them signal more confidently.



Riding Standing Up

Being able to ride standing up will improve students' balance and help them pedal uphill more confidently.

PREPARATION

Materials

For this lesson, you will need the following materials:

- A bicycle for every student
- A helmet for every student or
 - Hair nets for every student if sharing helmets
 - Trash can for hair nets
- 1 stop sign
- 15 big cones
- 179 small cones
- Directional arrows
- Sidewalk chalk
- Bicycle floor pump
- Chain lube and rags
- Large adjustable wrench
- Allen wrench multi-tool

small cone



big cone



Logistics

To teach the lesson you will also need the following:

- A secure paved space on your school campus. This could be a blacktop playground or parking lot.
- At least 3 volunteer assistants: 2 for the Learner's Course, and 1 for the Group Ride. More assistants will allow a better student to adult ratio. See [Campus Support Guide](#) guide for tips on how to find assistants. See Page 65 for how to adjust the lesson with fewer assistants.



Classroom Prep

In the days leading up to the lesson, work with the classroom teacher on the following preparations:

1. Send home [Parent Notification Flier](#) to remind students and parents to bring their bikes on the day of the lesson, and to request parent volunteers.
2. Have all students watch:
 - For 5-9 year olds: https://www.pedbikeinfo.org/bicyclesaferjourney/el_en.html
 - For 10-14 year olds: https://www.pedbikeinfo.org/bicyclesaferjourney/mi_en.html



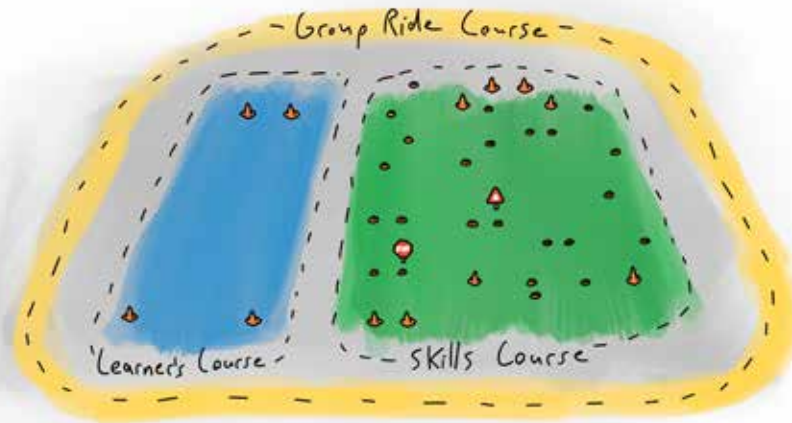
Structure

This lesson is designed around a 60-minute class period, though it can be modified based on your desired duration (see page 69). The structure is very similar to Lesson #1:

- **Pre-Lesson Instruction** (10 min)
Walk students through the bike and safety checks on *pages 11-15 in Lesson 1*.
- **Course Assignment** (10 min)
Divide students between courses based on skill level.
- **Lesson** (35 min)
Instruct students on the core skills of the lesson, with those on the Skills and Group Ride Courses flip flopping halfway through.
- **Cleanup** (5 min)
Gather bikes and helmets and discuss lessons learned.

Courses

During the Lesson period, students will ride one of these three courses:



Learner's Course

Here, the students who do not yet feel comfortable riding a bicycle can practice balance and pedaling with the help of your assistants.

Skills Course

This is the backbone of the lesson. Students will navigate obstacles, practicing skills from the Objectives as well as those from previous lessons.

Group Ride Course

As they wait for their turn on the skills course, students will go on an assistant-led loop ride, practicing skills from previous lessons.

Setup

On the day of the lesson, 30-40 minutes before the students arrive, work with your volunteer assistants to set up the three courses using cones, chalk, directional arrows, and traffic signs. You will also need to designate an area to stage bicycles and helmets. See the end of this lesson plan for a detailed diagram of the Skills Course, and page 19 for a detailed diagram of the Learner's Course.

LESSON 6

Course Assignment

After completing the safety checks from Lesson #1, it is time to start the lesson. Divide your students into two groups:



Those who know how to ride



Those who are still learning to ride

Use the following steps to do this:

1. Tell the students, “If you know how to ride a bike, join us for quick lap around the lesson area.” Have any students who do not join this lap move to the Learner’s Course.
2. If any of the students who did join the lap are clearly still struggling to ride, have them also join the Learner’s Course.
3. If you have two or more assistants, split the remaining students who did complete the lap successfully into two groups. One will proceed to the Skills Course, while the other will continue riding laps with an assistant as part of the Group Ride. Halfway through the lesson, these two groups will switch areas.
4. If you only have one assistant, drop the Group Ride and have all the students who successfully completed the quick lap proceed to the Skills Course.

Starting The Lesson

Instruction will now begin simultaneously on all of the courses. We suggest having the PE teacher manage the Skills Course, the classroom teacher or an assistant manage the Learner’s Course, and a third assistant manage the Group Ride. Additional assistants can help on the Learner’s Course, or in specific places on the Skills Course as noted below.

Here is a breakdown of how to run all three of these courses:

1. Learner’s Course: **pages 17-19 in Lesson 1**
2. Skills Course: pages 66-67
3. Group Ride: page 68

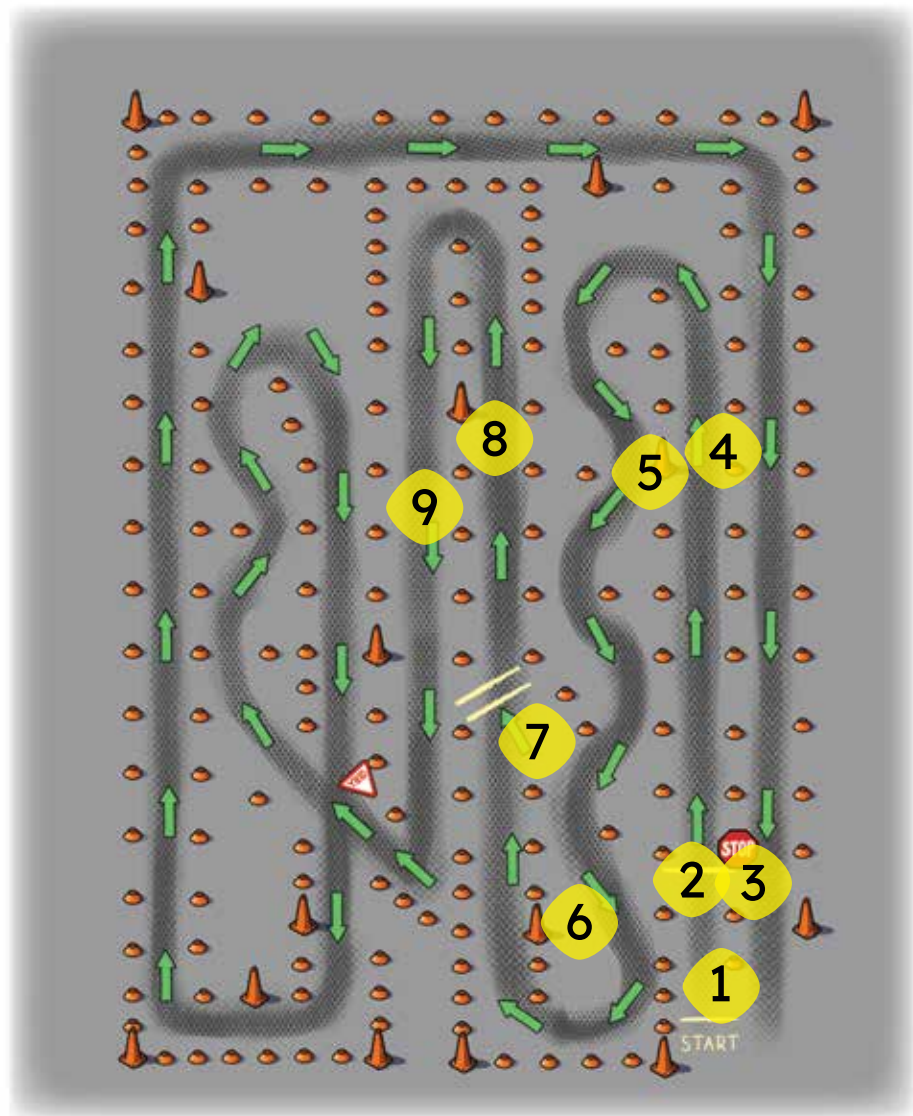
Lesson 6 Skills Course Instruction

The Skills Course is where you will teach the primary skills of this lesson: perpendicular crossings, one-handed riding, and riding while standing up. Before students start riding the course, have them watch you ride through it once. Narrate what you are doing as you pedal the course, highlighting where they should be practicing specific skills. We have underlined these skills in the Directions.

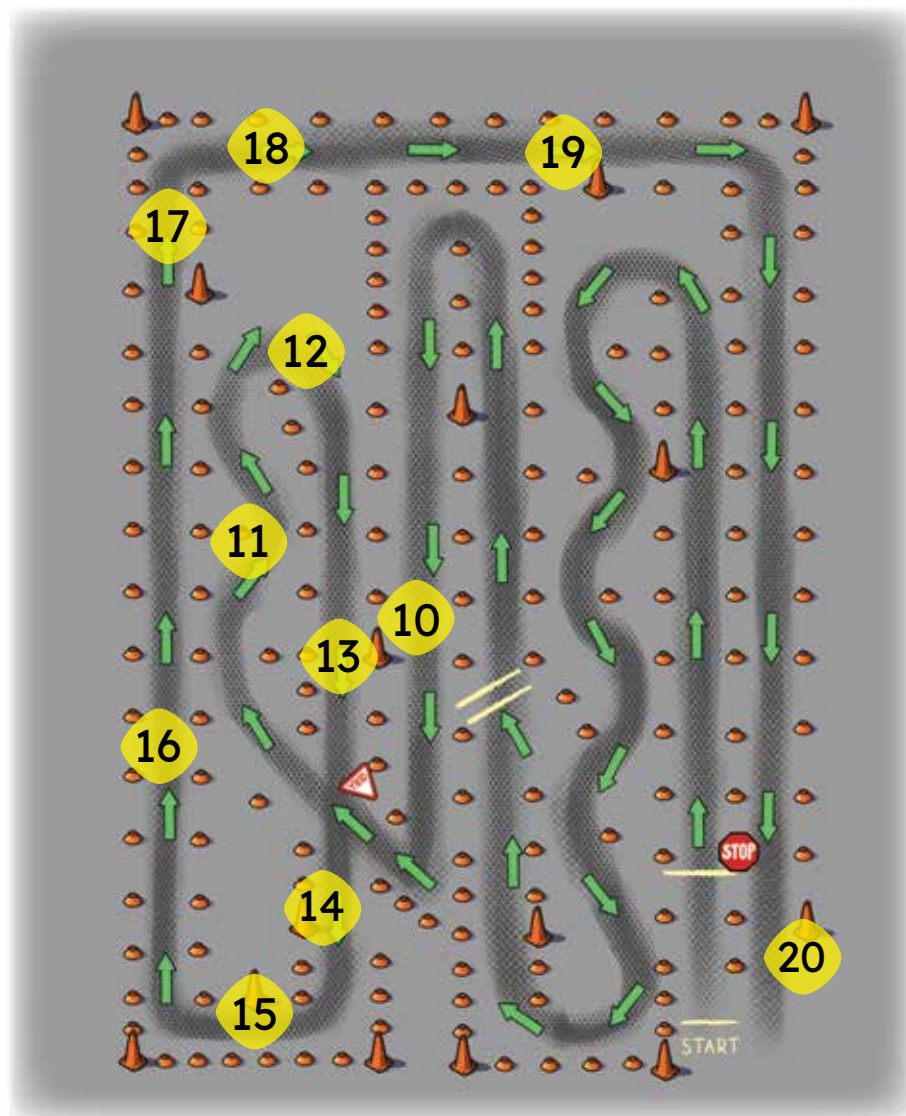
Once you have finished, have the students ride through the course one at a time, counting to 10 after each student starts to space them out. If needed, riders can line up in two lines and alternate starting to reduce the length of the queue. Halfway through the class, have the students on the Skills Course switch places with those in the Group Ride.

Directions

1. Start in Power Pedal Position.
2. Come to a complete stop at the stop sign. Return pedals to Power Pedal Position.
3. Look left-right-left as if you are at an intersection, then proceed.
4. When you reach the large cone, signal left turn.
5. Slalom around cones.
6. When you reach the large cone, signal right turn.
7. As you approach the chalk "railroad tracks", swing your bike wide and cross at a perpendicular angle.
8. When you reach the large cone, signal left turn.
9. Ride with one hand. Switch to your other hand next time you go through the course.



10. When you reach the large cone, signal right turn. Make a tight turn, then yield to oncoming traffic from the right. Establish eye contact with those riders coming from the right, then proceed when it is clear.
11. Slalom around cones.
12. At the exit of the slalom, signal right and make a U-turn.
13. When you cross back past the yield sign, establish eye contact with the riders who are yielding to make sure that they wait for you to cross.
14. When you reach the large cone, signal right turn.
15. When you reach the large cone, signal right turn.
16. Stand up while pedaling.
17. When you reach the large cone, signal right turn.
18. Gain speed, and flat pedal glide.
19. When you reach the large cone, signal right turn.
20. Exit the course, and then join the queue to re-enter.



Lesson 6 Group Ride Instruction

The Group Ride Course is where an assistant takes the half of the class that is not participating in the Skills Course on follow-the-leader ride around the lesson area. Students should follow the assistant assigned to lead this ride, always maintaining 1-2 bike lengths between them and the rider in front. For this lesson, have the assistant call out the following skills as they ride around the lesson area:

- **Starting/Stopping:** The assistant can call out “stopping,” then slow to a stop. All riders behind them should pass the message on, and slowly come to a stop as the rider in front of them does.
- **Signaling:** Whenever the group is approaching a turn, call out “left turn” or “right turn,” and all riders should signal appropriately.
- **Scanning:** Call out “scanning,” and all students should practice looking over their left shoulder, while still riding in a straight line.
- **Slalom:** On a straight stretch of the ride, call out “slalom,” and the students should practice leaning right and left to gently weave their bikes left and right.
- **Flat Pedal Glide:** Call out “flat pedal glide,” and all the students should stop pedaling, keep their pedals level, and coast until you call out “pedal.”

If needed, you can also add in the following scenarios:

- **Big Circle Riding.** This activity gives the assistant a great view of the group, while making it fun to practice certain skills. The group rides in one big circle so everyone can see everyone else. This is a great time to practice one handed riding as a precursor to signaling. The instructor can shout out, “everyone put your left hand into the circle”, and then, “everyone put your right hand outside the circle”. If students can’t yet do this, they can practice just lifting their hand off the handlebar for one second.
- **Take It Wide:** Draw an 5’ long angled line with chalk on the pavement. Tell students to “take it wide” by maneuvering their bicycle in a wide turn that allows them to cross the line at a perpendicular angle. This activity teaches students to always cross railroad tracks and driveway lips with their bike perpendicular to the obstacle, as they do on the Skills Course in this lesson.

Lesson 6 Modifications

These lessons are built around a 60-minute class period. If needed, you can modify the Skills Course portion to better fit the duration of your PE class. Here are a few suggestions:

Make it Shorter

- Remove the first slalom section, having the start line be just before the simulated railroad tracks. This will reduce the total number of course lanes from 8 to 6.

Make it Longer

- Have students make a u-turn right when they exit, doubling back all the way around the outside of the course counterclockwise and re-entering the start lane by making a left turn.

Cleanup

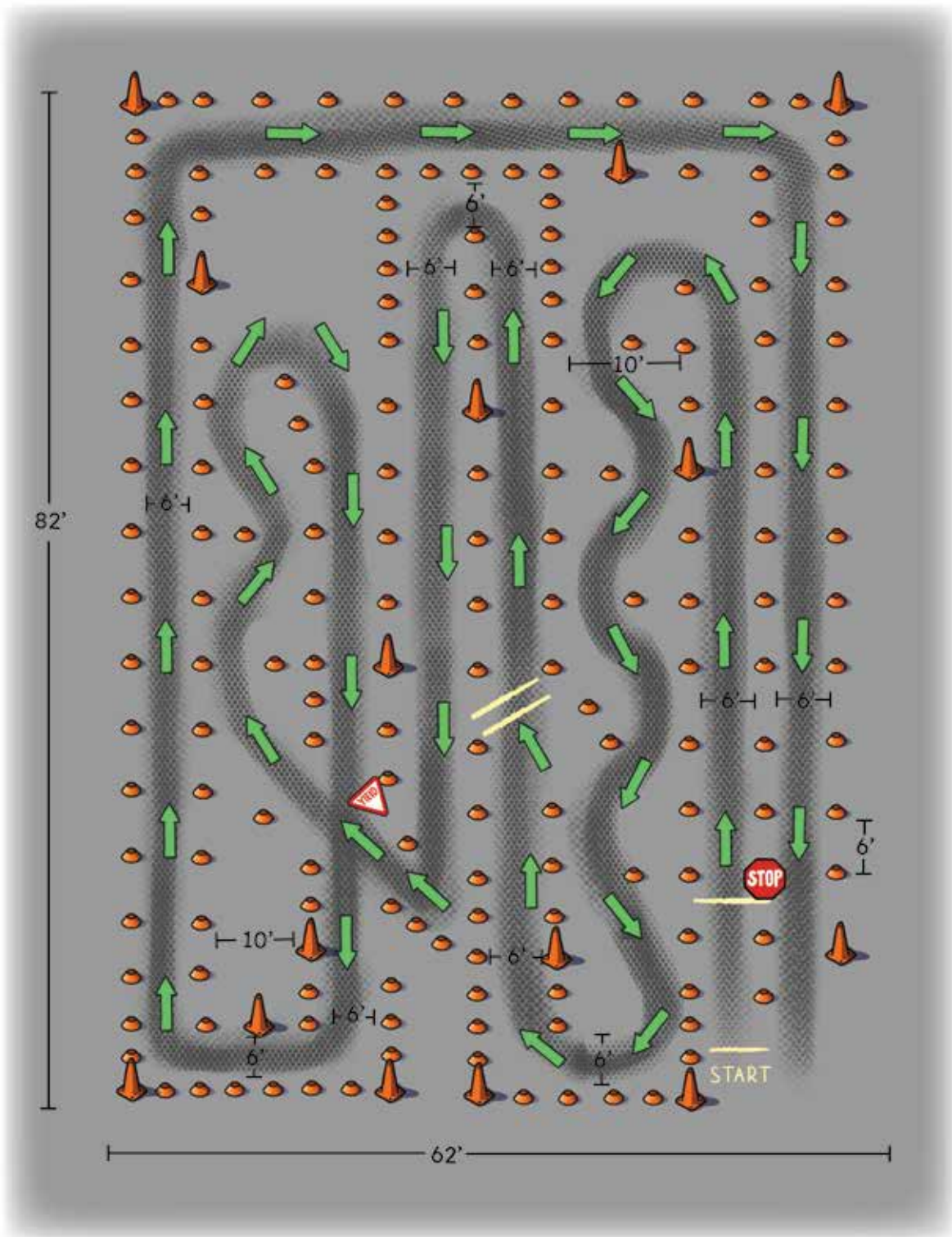
Once the lesson is finished, have the students help you pick up the cones, signs, etc. They should also return all their bicycles to the staging area, setting them up as they found them at the beginning of the lesson. If there is time, consider gathering everyone in a group and asking them the following questions:




1. What skills have you learned today? Can you describe them?
2. What was the hardest part of the lesson?
3. What was the most fun part of the lesson?

Finally, give them a brief description of the next lesson, and get them excited about the new skills that they will learn! Remind them that this whole series of lessons isn't just a fun school activity: this will help them safely navigate their neighborhoods and give them the freedom to get where they want to go.

Lesson 6 Skills Course Layout

Here is a diagram of the Skills Course to help with setup. Feel free to modify as needed based on the space available at your school.



 = Big Cone  = Small Cone  = Chalk

LESSON #7

HAZARD AVOIDANCE

INTRODUCTION

We designed this lesson to teach students how to avoid both small and large obstacles that they might encounter on the road. Unlike the other infrastructure that they have been learning about, these obstacles might pop up with little warning as they pedal around their neighborhoods. Learning how to recognize and react to these hazards safely will give students the confidence to get around under their own power, no matter what the road throws at them.

Objectives

After completing this lesson, your students will have mastered the following new skills:



Rock Dodge

How to avoid small obstacles in the road, like a rock or broken glass.



Hazard Dodge

How to avoid larger obstacles in the road, like a tree branch or improperly parked car, which may require maneuvering into traffic.



Quick Stop

Executing a rapid stop to avoid an obstacle without going over the bars or skidding.

PREPARATION

Materials

For this lesson, you will need the following materials:

- A bicycle for every student
- A helmet for every student or
 - Hair nets for every student if sharing helmets
 - Trash can for hair nets
- 4 stop signs
- 7 big cones
- 123 small cones
- 16 tennis ball halves
- 4 racquetball halves (“rocks”)
- 4 large sandbags (“hazards”)
- Directional arrows
- Sidewalk chalk
- Bicycle floor pump
- Chain lube and rags
- Large adjustable wrench
- Allen wrench multi-tool

small cone



big cone



Logistics

To teach the lesson you will also need the following:

- A secure paved space on your school campus. This could be a blacktop playground or parking lot.
- At least 3 volunteer assistants: 2 for the Learner’s Course, and 1 for the Group Ride. More assistants will allow a better student to adult ratio. See [Campus Support Guide](#) guide for tips on how to find assistants. See Page 74 for how to adjust the lesson with fewer assistants.



Classroom Prep

In the days leading up to the lesson, work with the classroom teacher on the following preparations:

1. Send home [Parent Notification Flier](#) to remind students and parents to bring their bikes on the day of the lesson, and to request parent volunteers.
2. Have all students watch:
 - For 5-9 year olds: https://www.pedbikeinfo.org/bicyclesaferjourney/el_en.html
 - For 10-14 year olds: https://www.pedbikeinfo.org/bicyclesaferjourney/mi_en.html



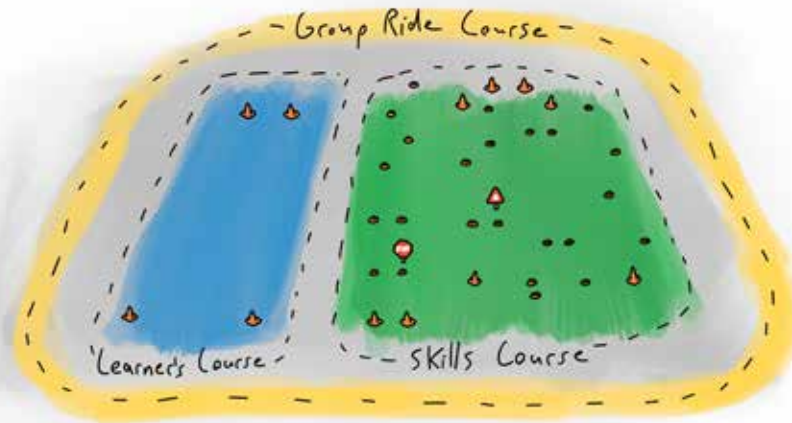
Structure

This lesson is designed around a 60-minute class period, though it can be modified based on your desired duration (see page 80). The structure is very similar to Lesson #1:

- **Pre-Lesson Instruction** (10 min)
Walk students through the bike and safety checks on **pages 11-15 in Lesson 1**.
- **Course Assignment** (10 min)
Divide students between courses based on skill level.
- **Lesson** (35 min)
Instruct students on the core skills of the lesson, with those on the Skills and Group Ride Courses flip flopping halfway through.
- **Cleanup** (5 min)
Gather bikes and helmets and discuss lessons learned.

Courses

During the Lesson period, students will ride one of these three courses:



Learner's Course

Here, the students who do not yet feel comfortable riding a bicycle can practice balance and pedaling with the help of your assistants.

Skills Course

This is the backbone of the lesson. Students will navigate obstacles, practicing skills from the Objectives as well as those from previous lessons.

Group Ride Course

As they wait for their turn on the skills course, students will go on an assistant-led loop ride, practicing skills from previous lessons.

Setup

On the day of the lesson, 30-40 minutes before the students arrive, work with your volunteer assistants to set up the three courses using cones, chalk, directional arrows, and traffic signs. You will also need to designate an area to stage bicycles and helmets. See the end of this lesson plan for a detailed diagram of the Skills Course, and page 19 for a detailed diagram of the Learner's Course.

LESSON 7

Course Assignment

After completing the safety checks from Lesson #1, it is time to start the lesson. Divide your students into two groups:



Those who know how to ride



Those who are still learning to ride

Use the following steps to do this:

1. Tell the students, “If you know how to ride a bike, join us for quick lap around the lesson area.” Have any students who do not join this lap move to the Learner’s Course.
2. If any of the students who did join the lap are clearly still struggling to ride, have them also join the Learner’s Course.
3. If you have two or more assistants, split the remaining students who did complete the lap successfully into two groups. One will proceed to the Skills Course, while the other will continue riding laps with an assistant as part of the Group Ride. Halfway through the lesson, these two groups will switch areas.
4. If you only have one assistant, drop the Group Ride and have all the students who successfully completed the quick lap proceed to the Skills Course.

Starting The Lesson

Instruction will now begin simultaneously on all of the courses. We suggest having the PE teacher manage the Skills Course, the classroom teacher or an assistant manage the Learner’s Course, and a third assistant manage the Group Ride. Additional assistants can help on the Learner’s Course, or in specific places on the Skills Course as noted below.

Here is a breakdown of how to run all three of these courses:

1. Learner’s Course: **pages 17-19 in Lesson 1**
2. Skills Course: pages 75-78
3. Group Ride: page 79

Lesson 7 Skills Course Instruction

The Skills Course is where you will teach the primary skills of this lesson: dodging rocks, dodging larger obstacles, and quick stops. Using a course similar to that from Lesson #1, students will progress through the course in 3 phases, each with a different obstacle avoidance technique. Each phase should last 5-10 minutes, or until it is clear that students have mastered the new skill introduced in that phase.

Before students begin each phase, have them watch you ride the course once. Narrate what you are doing as you ride. Highlight where they should be practicing each skill. We have underlined these skills in the Directions. Once you finish, have the students ride through the course one at a time, counting to 10 after each student starts to space them out. Halfway through the class, have the students on the Skills Course switch places with those in the Group Ride.

Phase #1: Rock Dodge

Rock Dodge teaches students how to make a quick maneuver with the handlebars to avoid a small hazard in the road that can appear suddenly, like a rock or broken glass.

Objective

This phase will introduce the following new skill:

Rock Dodge

Maneuvering one's front wheel quickly around a small obstacle. The rear tire will then follow over the obstacle.

Describe to the students that in this course, the dodge involves a quick wiggle of the handlebars to the left then right, avoiding the racquetball "rock" while staying within the tennis ball markers. Explain that the wiggle works best if riders get a little bit of speed.

Explain that it is important to swerve left and then back to the right when avoiding obstacles because we want our final reaction to steer us away from potential traffic on the road. When we swerve left, we head toward the road and traffic, but our corresponding wiggle back to the right directs us away from the road and traffic.

Setup

Ensure that the rock dodge is set up properly, with a racquetball half in the middle of each lane, surrounded by four tennis ball halves. If the placement of the tennis balls is too wide, students may be inclined to ride straight through and alongside the center "rock" without wiggling. Make sure not to place the tennis balls too far apart (approximately 3-6") to force the students to execute that wiggle to avoid the racquetball.

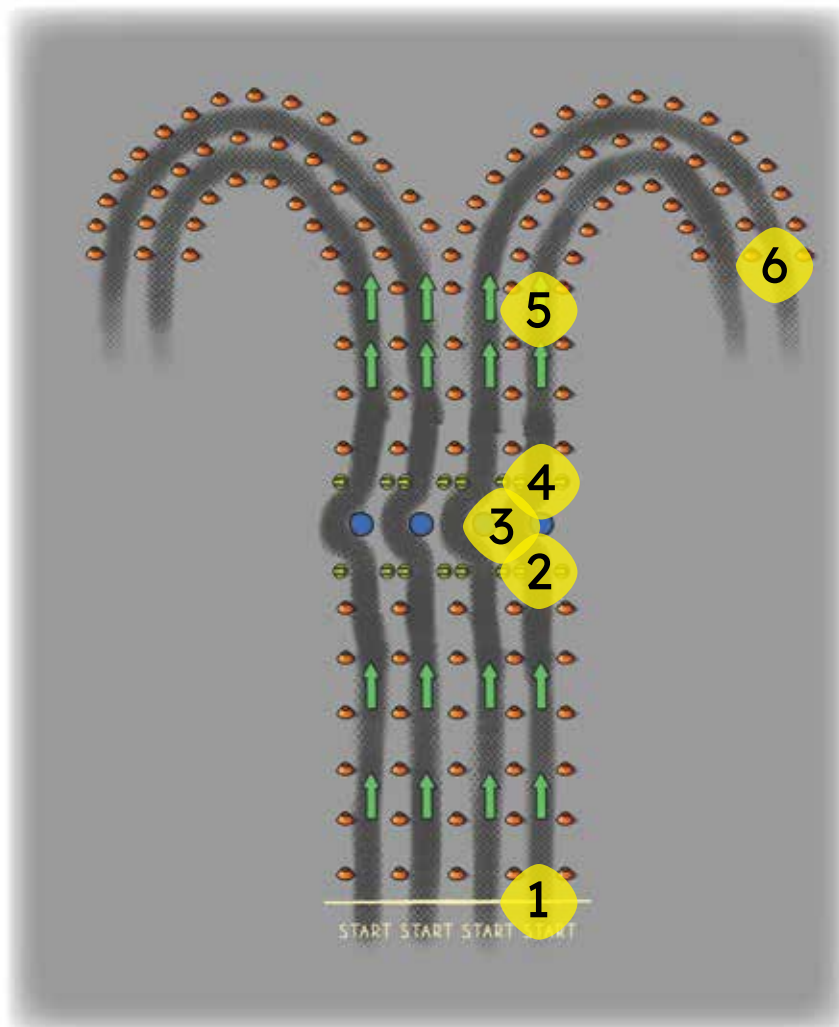
Divide the class into four equal groups, and have each group line up behind one of the four course lanes.

Phase #1: Rock Dodge (continued)

Directions

1. Pedal into the course, gathering speed before the “rock.”
2. Pass between the first set of tennis balls.
3. Dodge left around the “rock,” then wiggle back right to exit the obstacle through the second set of tennis balls.
4. Avoid hitting any of the tennis balls.
5. Once through the obstacle, ride the rest of the course.
6. Exit the course, returning to the start to try again.

Once the students have mastered this dodge, proceed to Phase #2.



Phase #2: Hazard Dodge

Hazard Dodge teaches students how to avoid large hazards like tree branches, large patches of gravel, or a vehicle parked in the bike lane. These obstacles are big enough that the rider must move further into the lane of vehicle traffic to avoid the hazard.

Objective

This phase will introduce the following new skill:

Hazard Dodge

Maneuvering around a larger obstacle that might require riding out into the street.

Explain to the students that this dodge requires three preparatory steps: see, scan and signal. This will prepare them for riding on the street, where they should regularly look at the roadway ahead to notice things they may need to respond to. While in line, have them practice scanning over their left shoulder and signaling left around the hazard.

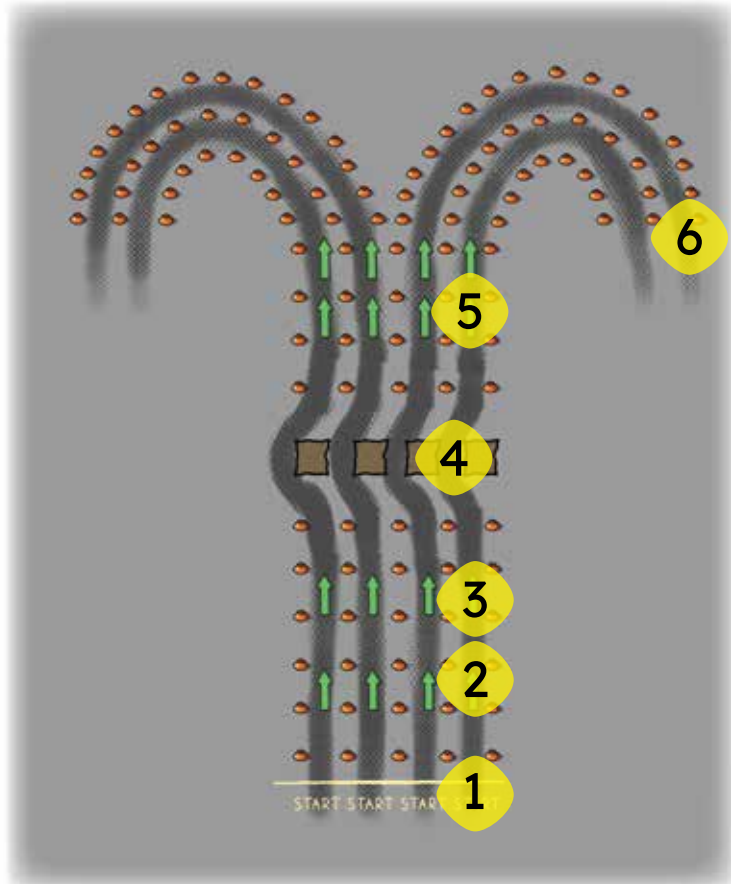
Setup

Remove the tennis balls and racquetballs from the course, and replace them with the four large sandbags as indicated in the course diagram below.

Divide the class into four equal groups, and have each group line up behind one of the lanes.

Directions

1. Pedal into the course, looking ahead at the “hazard.”
2. Before reaching the “hazard”, scan over your shoulder as if to look for vehicles coming from behind.
3. Signal left to show intent to move into the roadway while avoiding the “hazard.”
4. Put your hand back on the handlebars, and Dodge around the left side of the obstacle.
5. Once around the obstacle, return to the center of the lane and ride the rest of the course.
6. Exit the course, returning to the start to try again.



After students have mastered this skill, discuss with them what riders should do if they scan behind them and see traffic coming (answer: stop or slow down and wait for traffic to pass, then scan again and ride around the obstacle when safe). Proceed to Phase #3.

Phase #3: Quick Stop

The Quick Stop teaches students how to execute an emergency stop when they encounter an obstacle and have no time to think or respond, such as: a friend crashing in front of them, a dog jumping into the road, or a driver making a sudden right turn across the bike lane.

Objective

This phase will introduce the following new skill:

Quick Stop

Stopping rapidly to avoid an obstacle that one cannot dodge around. This requires picking up speed and using three actions to keep your bike in control:

- Using both brakes.
- Getting your pedals in the 'flat' position.
- Shifting your body weight back over the rear wheel.

Before starting this phase, take students on a quick lap around the lesson area to practice proper braking and flat pedal gliding. Explain that if we use only our brakes to stop, we could fly over the handlebars or skid uncontrollably. Show how standing up on the pedals and flat pedal gliding, while shifting our weight back, can prevent skidding.

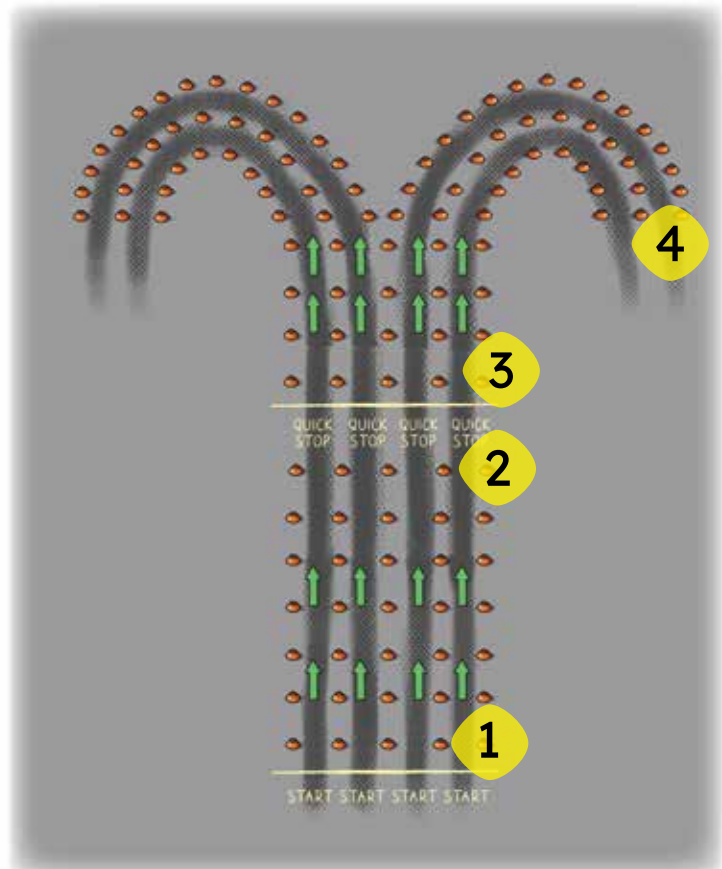
Setup

Remove the hazard dodge, and use chalk to draw the quick stop line in the course diagram below. Then, divide the class into four equal groups, and have each group line up behind one of the lanes.

Directions

1. Enter the course, picking up speed to approach the quick stop.
2. 6-8" from the line, simultaneously place pedals in flat pedal glide position, pull both brakes hard and move body weight as far over the rear tire as possible, executing a Quick Stop.
3. Restart, and finish the course, signaling as you pass the big cone.
4. Exit the course and return to the start line to try again.

Students are often timid doing this phase. To motivate them, consider sharing how moving one's weight further back while riding is used by many professional mountain bikers to avoid flipping over the bars when going down a steep hill.



Lesson 7 Group Ride Instruction

The Group Ride Course is where an assistant takes the half of the class that is not participating in the Skills Course on follow-the-leader ride around the lesson area. Students should follow the assistant assigned to lead this ride, always maintaining 1-2 bike lengths between them and the rider in front. For this lesson, have the assistant call out the following skills as they ride around the lesson area:

- **Starting/Stopping:** The assistant can call out “stopping,” then slow to a stop. All riders behind them should pass the message on, and slowly come to a stop as the rider in front of them does.
- **Signaling:** Whenever the group is approaching a turn, call out “left turn” or “right turn,” and all riders should signal appropriately.
- **Scanning:** Call out “scanning,” and all students should practice looking over their left shoulder, while still riding in a straight line.
- **Slalom:** On a straight stretch of the ride, call out “slalom,” and the students should practice leaning right and left to gently weave their bikes left and right.
- **Flat Pedal Glide:** Call out “flat pedal glide,” and all the students should stop pedaling, keep their pedals level, and coast until you call out “pedal.”

If needed, you can also add in the following scenarios:

- **Big Circle Riding.** This activity gives the assistant a great view of the group, while making it fun to practice certain skills. The group rides in one big circle so everyone can see everyone else. This is a great time to practice one handed riding as a precursor to signaling. The instructor can shout out, “everyone put your left hand into the circle”, and then, “everyone put your right hand outside the circle”. If students can’t yet do this, they can practice just lifting their hand off the handlebar for one second.
- **Take It Wide:** Draw a 5’ long angled line with chalk on the pavement. Tell students to “take it wide” by maneuvering their bicycle in a wide turn that allows them to cross the line at a perpendicular angle. This activity teaches students to always cross railroad tracks and driveway lips with their bike perpendicular to the obstacle, as they do on the Skills Course in this lesson.

Lesson 7 Modifications

These lessons are built around a 60-minute class period. If needed, you can modify the Skills Course portion to better fit the duration of your PE class. Here are a few suggestions:

Make it Shorter

- Consider dropping Phase #1 (rock dodge), and just focusing on Phase #2 (hazard dodge) and Phase #3 (quick stop).
- Combine all three obstacles into a single phase by putting one in each lane (repeating one obstacle twice). Have students alternate between lanes so that they can practice will all three obstacles.

Make it Longer

- Add additional phases with new skills introduced in each:
 - Simulate riding up a curb by placing a 4”x4”x12’ across the lane that students must pick up their front wheel to get over.
 - Add to this in the subsequent phase by turning that “curb” into a ramp, adding a 1’ wide and 6’ long board in each lane that students must ride up, then roll off the small drop. This simulates riding off of a curb.
 - Add 2”x4”s at an angle across all lanes, simulating railroad tracks like in Lesson #6.

Cleanup

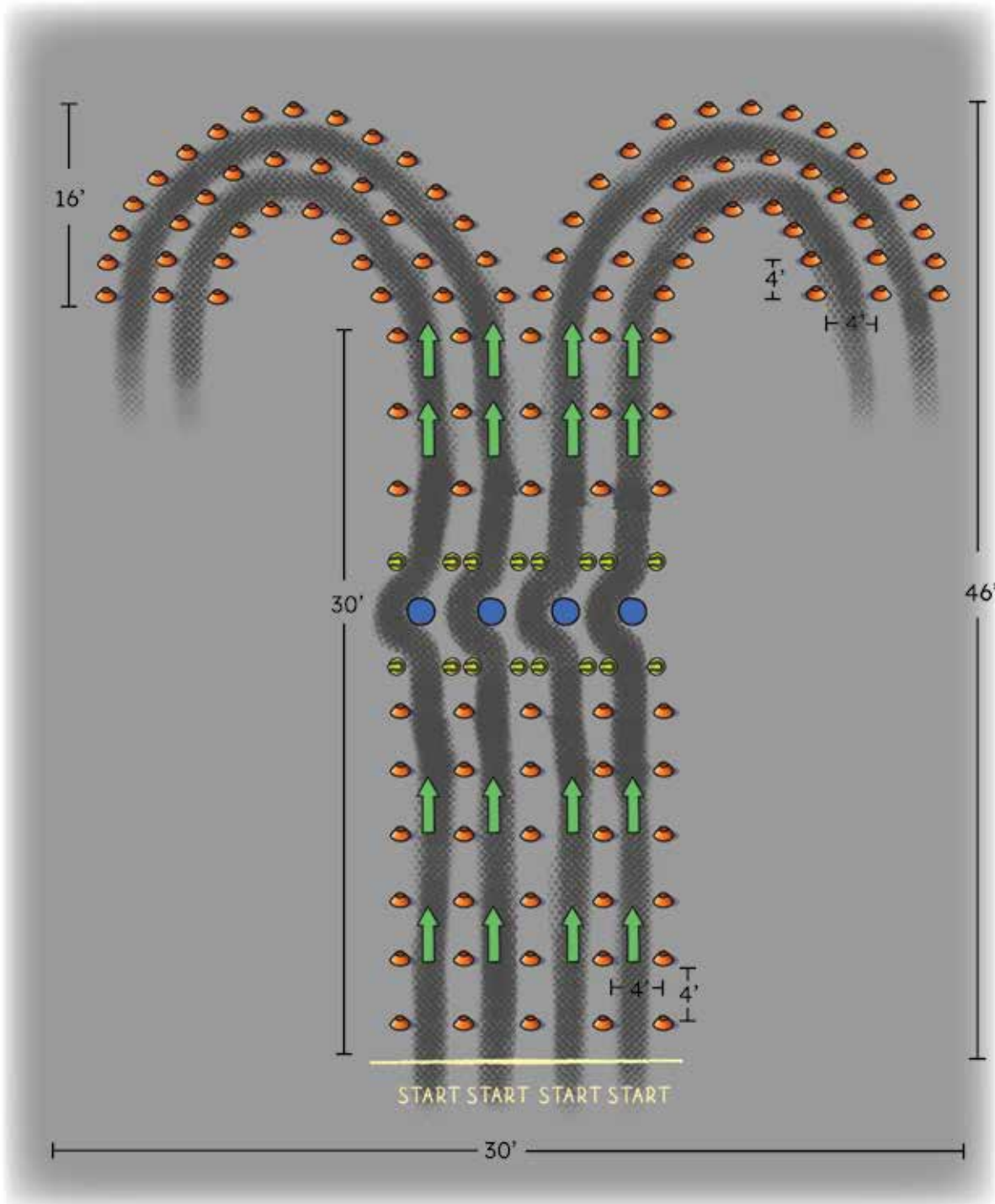
Once the lesson is finished, have the students help you pick up the cones, signs, etc. They should also return all their bicycles to the staging area, setting them up as they found them at the beginning of the lesson. If there is time, consider gathering everyone in a group and asking them the following questions:

1. What skills have you learned today? Can you describe them?
2. What was the hardest part of the lesson?
3. What was the most fun part of the lesson?

Finally, give them a brief description of the next lesson, and get them excited about the new skills that they will learn! Remind them that this whole series of lessons isn’t just a fun school activity: this will help them safely navigate their neighborhoods and give them the freedom to get where they want to go.

Lesson 7 Skills Course Layout

Here is a diagram of the Skills Course for Phase #1 to help with setup. Feel free to modify as needed based on the space available at your school.



 = Big Cone  = Small Cone  = Chalk  = Half raquetball  = Half tennis ball

LESSON #8

LANE POSITION

INTRODUCTION

We designed this lesson to teach students how to properly merge lanes and make a safe left turn. They will progress through a variety of increasingly complex merging scenarios, all preparing them for real-world situations that they might encounter while riding through their neighborhood.

Learning these skills isn't just about observing the proper right of way when navigating complex merges and turns. Being able to make these maneuvers safely will give students the confidence to ride on busier streets, further expanding the area of their neighborhood that they can access under their own power.

Objectives

After completing this lesson, your students will have mastered the following new skills:



Lane Merge

Safely merging across lanes of traffic, using the scan/signal/scan/merge progression.



Left Turn

Safely making a left turn across lanes of traffic, yielding until it is safe to do so.

PREPARATION

Materials

For this lesson, you will need the following materials:

- A bicycle for every student
- A helmet for every student or
 - Hair nets for every student if sharing helmets
 - Trash can for hair nets
- 4 stop signs
- 16 big cones
- 36 small cones
- Directional arrows
- Sidewalk chalk
- Bicycle floor pump
- Chain lube and rags
- Large adjustable wrench
- Allen wrench multi-tool

small cone



big cone



Logistics

To teach the lesson you will also need the following:

- A secure paved space on your school campus. This could be a blacktop playground or parking lot.
- At least 3 volunteer assistants: 2 for the Learner's Course, and 1 for the Group Ride. More assistants will allow a better student to adult ratio. See [Campus Support Guide](#) guide for tips on how to find assistants. See Page 85 for how to adjust the lesson with fewer assistants.



Classroom Prep

In the days leading up to the lesson, work with the classroom teacher on the following preparations:

1. Send home [Parent Notification Flier](#) to remind students and parents to bring their bikes on the day of the lesson, and to request parent volunteers.
2. Have all students watch:
 - For 5-9 year olds: https://www.pedbikeinfo.org/bicyclesaferjourney/el_en.html
 - For 10-14 year olds: https://www.pedbikeinfo.org/bicyclesaferjourney/mi_en.html



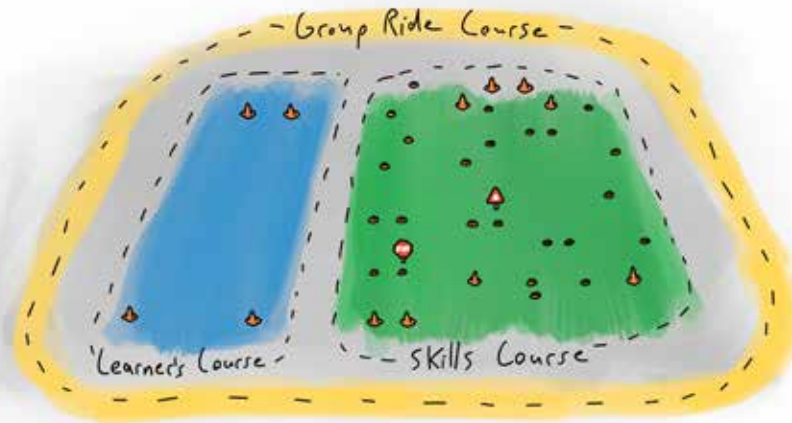
Structure

This lesson is designed around a 60-minute class period, though it can be modified based on your desired duration (see page 91). The structure is very similar to Lesson #1:

- **Pre-Lesson Instruction** (10 min)
Walk students through the bike and safety checks on **pages 11-15 in Lesson 1**.
- **Course Assignment** (10 min)
Divide students between courses based on skill level.
- **Lesson** (35 min)
Instruct students on the core skills of the lesson, with those on the Skills and Group Ride Courses flip flopping halfway through.
- **Cleanup** (5 min)
Gather bikes and helmets and discuss lessons learned.

Courses

During the Lesson period, students will ride one of these three courses:



Learner's Course

Here, the students who do not yet feel comfortable riding a bicycle can practice balance and pedaling with the help of your assistants.

Skills Course

This is the backbone of the lesson. Students will navigate obstacles, practicing skills from the Objectives as well as those from previous lessons.

Group Ride Course

As they wait for their turn on the skills course, students will go on an assistant-led loop ride, practicing skills from previous lessons.

Setup

On the day of the lesson, 30-40 minutes before the students arrive, work with your volunteer assistants to set up the three courses using cones, chalk, directional arrows, and traffic signs. You will also need to designate an area to stage bicycles and helmets. See the end of this lesson plan for a detailed diagram of the Skills Course, and page 19 for a detailed diagram of the Learner's Course.

LESSON 8

Course Assignment

After completing the safety checks from Lesson #1, it is time to start the lesson. Divide your students into two groups:



Those who know how to ride



Those who are still learning to ride

Use the following steps to do this:

1. Tell the students, “If you know how to ride a bike, join us for quick lap around the lesson area.” Have any students who do not join this lap move to the Learner’s Course.
2. If any of the students who did join the lap are clearly still struggling to ride, have them also join the Learner’s Course.
3. If you have two or more assistants, split the remaining students who did complete the lap successfully into two groups. One will proceed to the Skills Course, while the other will continue riding laps with an assistant as part of the Group Ride. Halfway through the lesson, these two groups will switch areas.
4. If you only have one assistant, drop the Group Ride and have all the students who successfully completed the quick lap proceed to the Skills Course.

Starting The Lesson

Instruction will now begin simultaneously on all of the courses. We suggest having the PE teacher manage the Skills Course, the classroom teacher or an assistant manage the Learner’s Course, and a third assistant manage the Group Ride. Additional assistants can help on the Learner’s Course, or in specific places on the Skills Course as noted below.

Here is a breakdown of how to run all three of these courses:

1. Learner’s Course: **pages 17-19 in Lesson 1**
2. Skills Course: pages 86-89
3. Group Ride: page 90

Lesson 8 Skills Course Instruction

The Skills Course is where you will teach the primary skills of this lesson. This lesson has 4 phases, each with an increasingly more complex lane merge and turn scenario. For Phases #1 and #2, have the students each ride through the course 2 times. For Phases #3 and #4, have them ride the course for 5-10 minutes, or until it is clear that they have mastered the new scenario.

Demonstrate the proper technique while riding through the course at the beginning of each phase, narrating what you are doing so that the students understand the progression of actions. We have underlined the key skills to mention in the Directions for each Phase. Once you have finished, have the students queue up as outlined below, and proceed through the course. Halfway through the class, have the students on the Skills Course switch places with those in the Group Ride.

Phase #1: Lane Change Before Turn

In this phase, students will practice scan/signal/scan/merge to get into the left lane, then execute a left turn toward the end of the road.

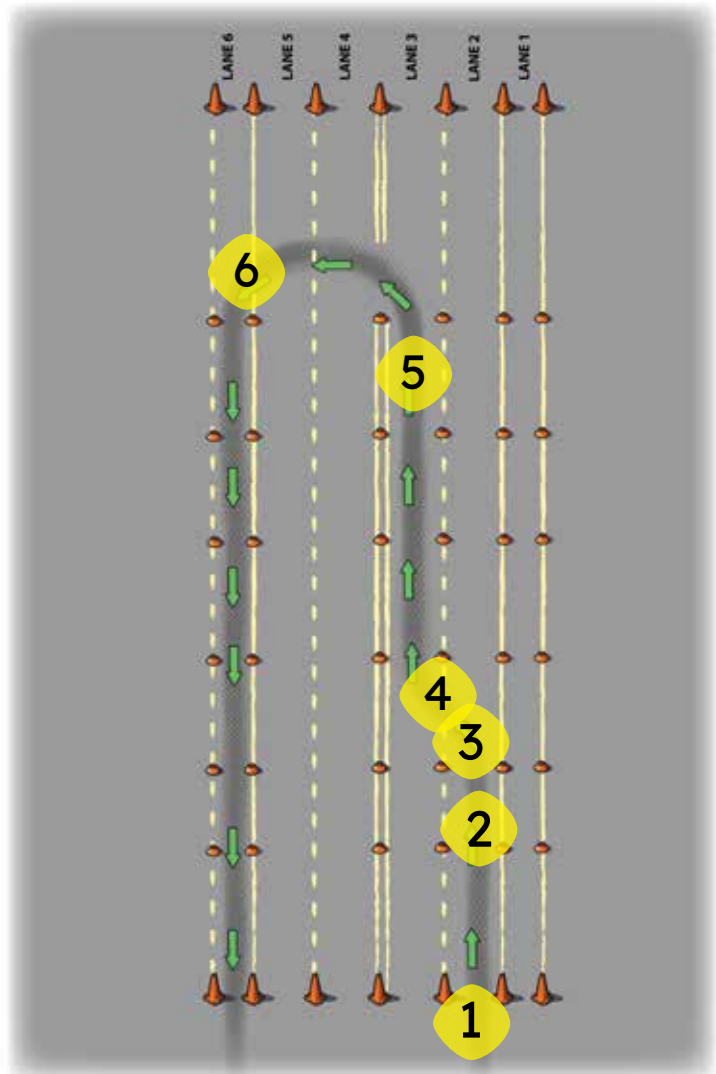
Setup

Have all the students queue up at the entrance to Lane #2.

Directions

1. Begin riding in Lane #2, then scan over your left shoulder.
2. If safe to merge into Lane #3, signal left.
3. Scan again to be sure it is safe.
4. If safe, slowly merge into Lane #3. This should be a merge, not a sudden turn.
5. Signal the left-hand turn, execute the left turn.
6. Circle back in Lane #6 and then line up again to enter Lane #2.

Once students have mastered this, proceed to Phase #2.



Phase #2: Two Lane Changes

In this phase, students will practice scan/signal/scan/merge to get into the middle lane, then the left lane, then execute a left turn toward the end of the road.

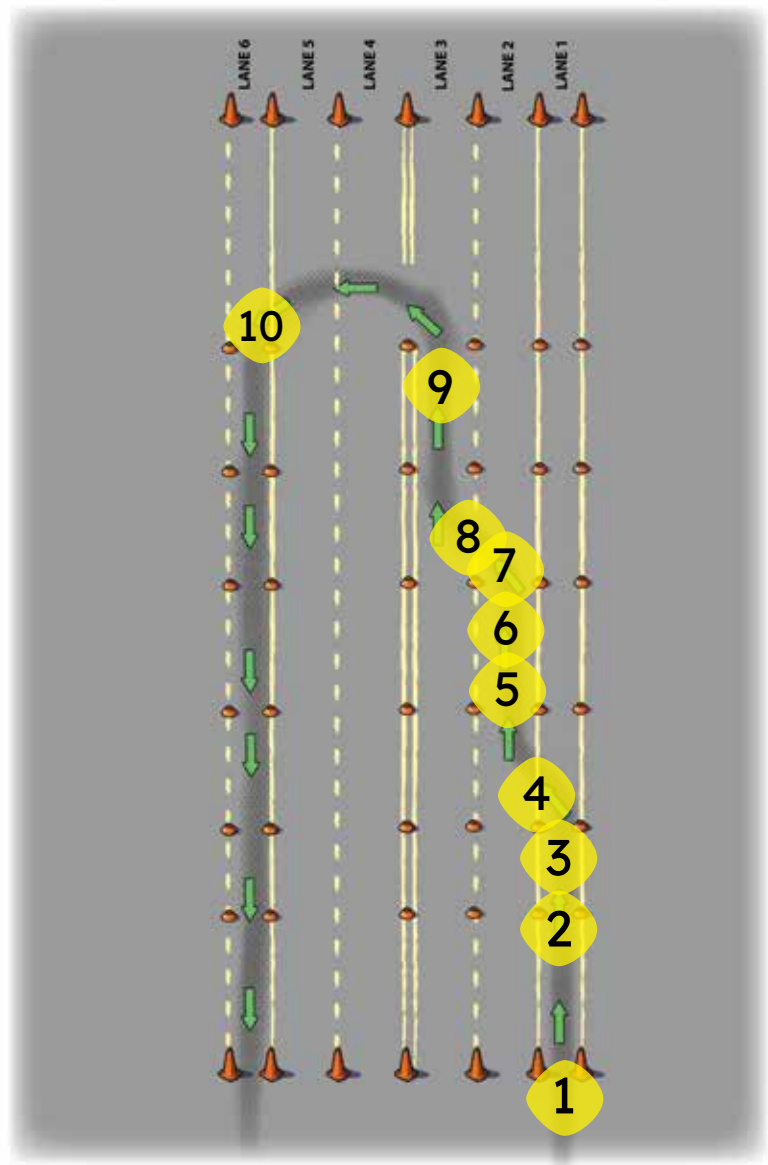
Setup

Have all the students queue up at the entrance to Lane #1.

Directions

1. Begin riding in Lane #1 (the bike lane). Scan over left shoulder.
2. If safe to move into Lane #2, signal left.
3. Scan again to be sure it is safe.
4. If safe, slowly merge Lane #2.
5. Scan over left shoulder.
6. If safe to move into Lane #3, signal left.
7. Scan again to be sure it is safe.
8. If safe, merge left gradually into Lane #3.
9. Signal the left-hand turn, execute the left turn.
10. Circle back in Lane #6 and then line up again to enter Lane #1.

Once students have mastered this, proceed to Phase #3.



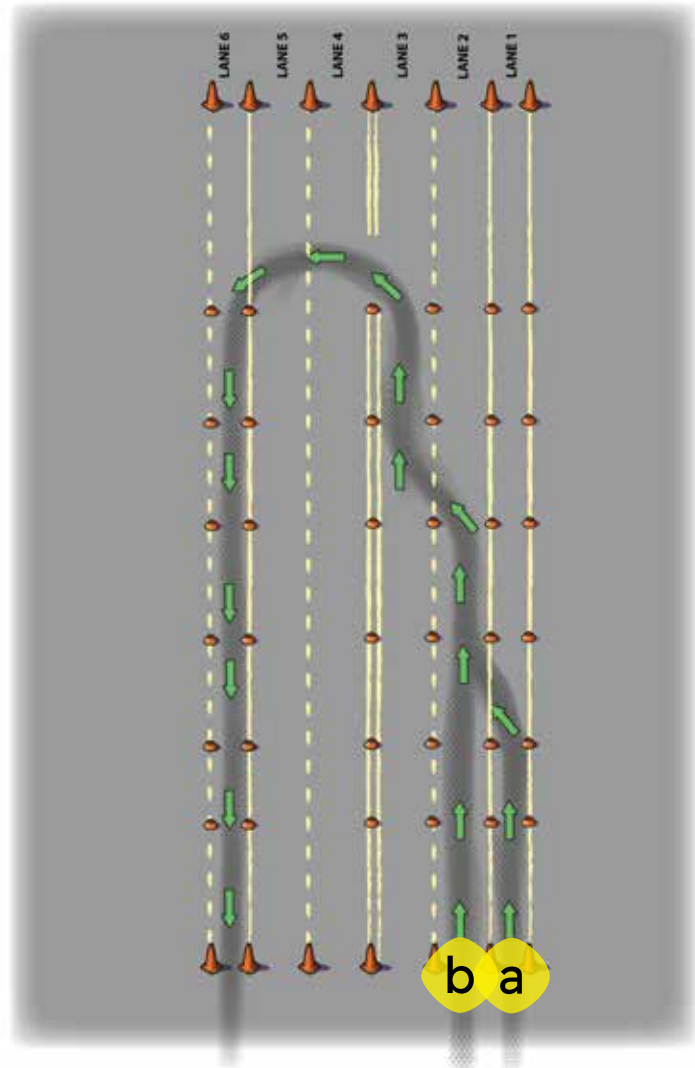
Phase #3: Merging with Traffic

In this phase, students will practice the same scenario as Phase #2, but with the added challenge of traffic coming from behind.

Setup

Divide students equally into two groups. Have one line up at the start of Lane #1, and the other at the start of Lane #2.

- a. Lane #1 students will make two lane merges:
 - First into Lane #2 and then into Lane #3
 - Then execute the left turn.
- b. Lane #2 students will make one lane merge into lane #3 and execute the left turn.
- c. Students in Lane #1 will have to slow down or speed up depending on traffic coming from behind in Lane #2 in order to make a safe lane-change into Lane #2.
- d. Students coming from behind in Lane #2 will have to notice the intention of the students in Lane #1 and either slow down or speed up to allow that rider into the lane.
- e. All students need to move into Lane #3 to make the left turn.



Directions

1. Ride through the course in your assigned lanes, using the scan/signal/scan/merge technique from previous phases for all lane changes.
 2. After making the left turn, proceed back to your starting lane and enter the course again.
- Once students have mastered this, proceed to Phase #4.

Phase #4: Oncoming Traffic

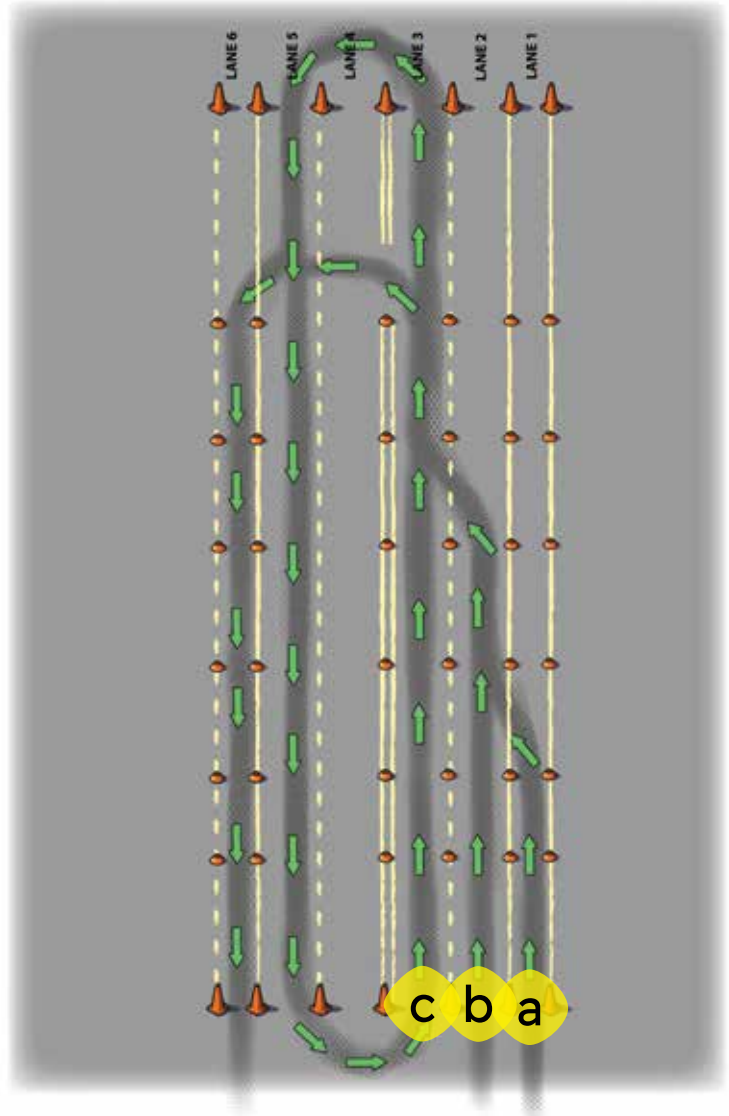
In this phase, students will practice the same scenario as Phase #3, but with the added challenge of oncoming traffic forcing them to yield before their final left turn.

Setup

Divide students into three groups: left-turn riders (Lane #1), left turn riders (Lane #2) and oncoming traffic riders (Lane #5).

After a few minutes, have the groups shift roles so that all students get to ride in all three roles.

- a. Lane #1 students will make two lane changes, first into Lane #2 and then into Lane #3. Then, when there is no oncoming traffic in Lane #5, they will execute the left turn.
- b. Lane #2 students will make one lane change into Lane #3, and then execute the left turn once there is no oncoming traffic in Lane #5.
- c. Traffic riders will ride the full length of the lane (no left turn), then make a U-turn at the top of the course and become oncoming traffic in lane #5. At the bottom of the course, these students will make another U-turn, entering lane #3 again. These students may ride the course continuously without stopping. Make sure that they stay spaced out, as this group tends to bunch up.



Directions

1. Ride through the course in your assigned lanes, using the same scan/signal/scan/merge technique from previous phases for all lane changes.
2. Once you exit the course, return to your starting lane and queue up to ride it again.

Lesson 8 Group Ride Instruction

The Group Ride Course is where an assistant takes the half of the class that is not participating in the Skills Course on follow-the-leader ride around the lesson area. Students should follow the assistant assigned to lead this ride, always maintaining 1-2 bike lengths between them and the rider in front. For this lesson, have the assistant call out the following skills as they ride around the lesson area:

- **Starting/Stopping:** The assistant can call out “stopping,” then slow to a stop. All riders behind them should pass the message on, and slowly come to a stop as the rider in front of them does.
- **Signaling:** Whenever the group is approaching a turn, call out “left turn” or “right turn,” and all riders should signal appropriately.
- **Scanning:** Call out “scanning,” and all students should practice looking over their left shoulder, while still riding in a straight line.
- **Slalom:** On a straight stretch of the ride, call out “slalom,” and the students should practice leaning right and left to gently weave their bikes left and right.
- **Flat Pedal Glide:** Call out “flat pedal glide,” and all the students should stop pedaling, keep their pedals level, and coast until you call out “pedal.”

If needed, you can also add in the following scenario:

- **Big Circle Riding.** This activity gives the assistant a great view of the group, while making it fun to practice certain skills. The group rides in one big circle so everyone can see everyone else. This is a great time to practice one handed riding as a precursor to signaling. The instructor can shout out, “everyone put your left hand into the circle”, and then, “everyone put your right hand outside the circle”. If students can’t yet do this, they can practice just lifting their hand off the handlebar for one second.

Lesson 8 Modifications

These lessons are built around a 60-minute class period. If needed, you can modify the Skills Course portion to better fit the duration of your PE class. Here are a few suggestions:

Make it Shorter

- Make it 4 lanes instead of 6, retaining Lanes #1, #2, #5, # 6.
- Make it 5 lanes, dropping Lane #4.

Make it Longer

- For Phases #1 and #2, have the left half of the course mirror the right:
 - Students will make a u-turn from Lane #3 into Lane #4, then right merges before exiting the course.
- For Phases #3 and #4, have more students start in the “traffic” lanes (#2 and #3), increasing the amount of instances where students have to yield to traffic coming from behind before merging.

Cleanup

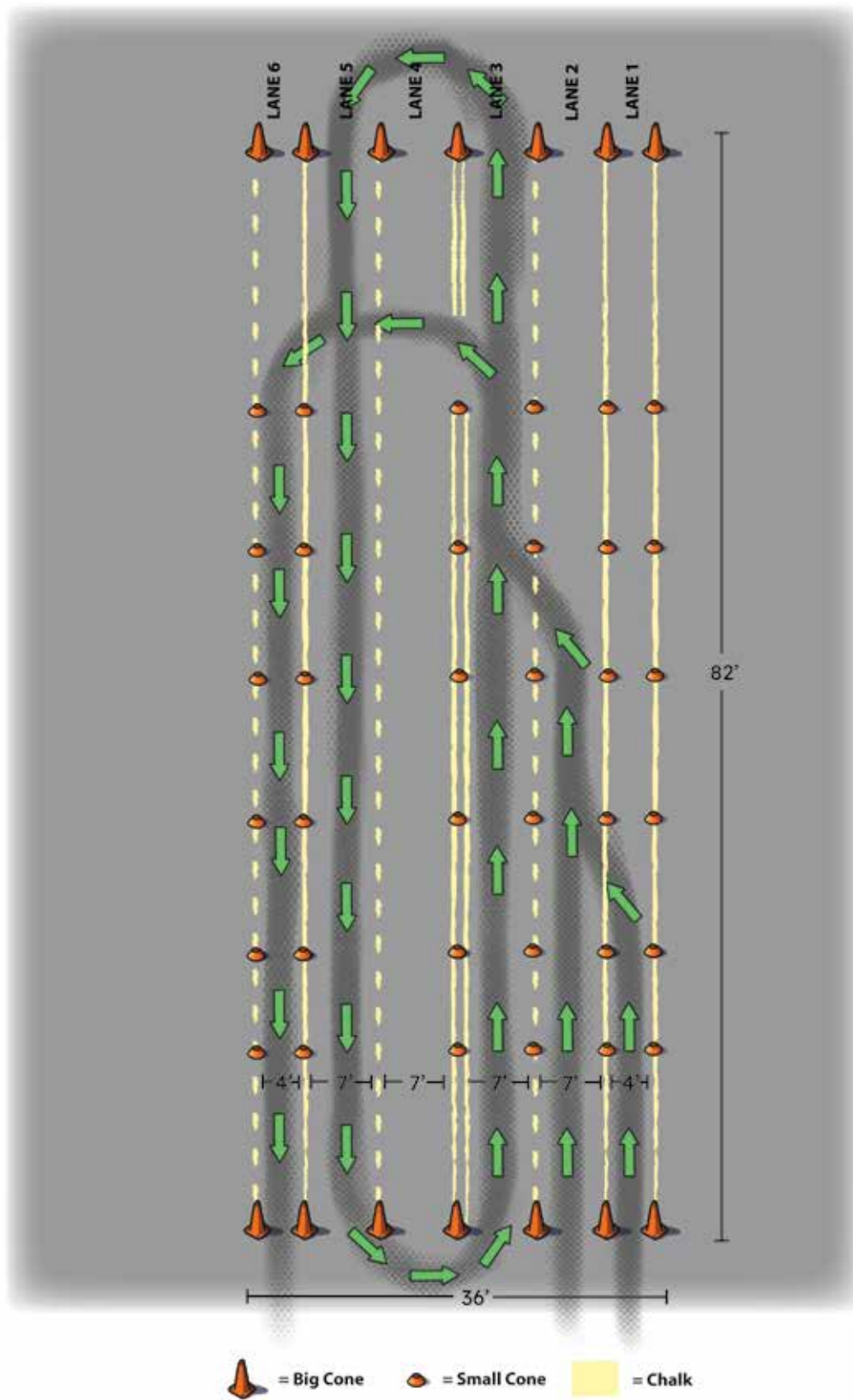
Once the lesson is finished, have the students help you pick up the cones, signs, etc. They should also return all their bicycles to the staging area, setting them up as they found them at the beginning of the lesson. If there is time, consider gathering everyone in a group and asking them the following questions:

1. What skills have you learned today? Can you describe them?
2. What was the hardest part of the lesson?
3. What was the most fun part of the lesson?

Finally, give them a brief description of the next lesson, and get them excited about the new skills that they will learn! Remind them that this whole series of lessons isn't just a fun school activity: this will help them safely navigate their neighborhoods and give them the freedom to get where they want to go.

Lesson 8 Skills Course Layout

Here is a diagram of the Skills Course to help with setup. Feel free to modify as needed based on the space available at your school.



SUPPORT MATERIALS

- 94** Additional Activities
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ADDITIONAL ACTIVITIES

Consider adding in the activities below if your students master the skills in a lesson quickly, and are looking for more challenges.

Snail Race

The snail race is excellent for teaching bike control and balance.

1. Designate a start line, and a finish line approximately 40-50 feet ahead.
2. Have 6-8 students line up on the start line, with one bike length between them.
3. Lay out the ground rules for the students:
 - i. The LAST rider to make it to the finish line wins!
 - ii. If a rider veers into another rider's travel lane, they are out of the race and must stop where they are.
 - iii. If riders put a foot down, they are out of the race and must stop where they are.
4. Demonstrate keeping balance by turning your handlebars back and forth, using your brakes and keeping your pedals flat.
5. Start the race!

Stop on a Dime

This game gives the students practice with precision braking. It's important for students to have a good feel for the bicycle they are riding. If, for example, brakes are loose, it's important to know that so the brakes can get fixed or the student knows to begin braking earlier than might otherwise be necessary. If brakes are tight, students should be sure not to suddenly brake too hard so they don't go over the handlebars.

1. Identify a start line, and then a finish line 40-50 feet away.
2. Have 6-8 students line up on the start line, with one bike length between them.
3. Direct students to start in the Power Pedal Position and pick up some speed.
4. When they get to the finish line, have them brake hard and come to a stop, but without skidding or going over the handlebars. Remind them to shift their weight back as they brake.
5. The rider who starts braking the latest but without going across the line or skidding wins.

Passing on your Left

This game teaches proper etiquette for passing slower moving traffic, like pedestrians on a multi-use path. As we pass pedestrians we want to notify them we are going to pass so they don't get alarmed or crash into us unexpectedly.

1. Instructor leads a group ride and moderates the pace. Students ride single file behind the instructor.
2. The last student in the line scans behind to check for traffic, then steers left and speeds up to pass each person in the group arriving at the front of the line.
3. The passing rider states "passing on your left" to notify each rider.
4. Repeat until everyone has had a chance to pass the group.

Red Light, Green Light

Red Light, Green Light is a fun way for students to learn basic traffic laws and bike control.

5. Establish a start line and a finish line approximately 10' length.
6. Have the students line up across the start line with one bike length between them.
7. Establish the ground rules:
 - i. Students will ride from start to finish, and the first one to the finish line wins.
 - ii. As the instructor calls out a skill, riders must execute it properly or they have to go back to the start line.
 - iii. "Red light" means stop.
 - iv. "Green light" means start in Power Pedal Position and go.
 - v. "Yield" means slow down and look in both directions.
 - vi. "Signal right" means turn right.
 - vii. "Signal left" means turn left.
 - viii. "Right scan" means scan over their right shoulder and call out the number of fingers instructor is holding up.
 - ix. "Left scan" means scan over their right shoulder and call out the number of fingers instructor is holding up.
10. Start the race!

Variation: Set up a large boundary and do all the above, but let the students ride ANYWHERE in the boundary (with no winner). This slows them down. Add cones to avoid within the boundary for added complexity.

Chaos Box

The chaos box teaches riders what it would be like to ride on streets with no traffic laws in place. This activity is best for more advanced students with proficient bike control.

1. Define a set area with lines for boundaries. A basketball court works well.
2. Explain to the students that within the box there are no traffic rules to follow. Riders can go any direction. The game however has a couple of ground rules:
 - i. Riders must stay inside the boundaries.
 - ii. Riders may not crash into anyone.
3. Have the students ride around the area, not stopping, but still obeying the ground rules above.
4. Once they have mastered this, take it a step further and make the boundaries smaller, such as a half basketball court.
5. After a few minutes of chaos, have everyone stop riding. Ask them what they thought of the experience, and what it would be like if there were no rules on roads. Talk to them about why we have rules for drivers and bicyclists: when everyone follows the rules, fewer crashes happen. (Reminder: use the word ‘crash’ or ‘collision’, not “accident.”)
6. Start the race!
7. After the race, ask them why riding slowly is more difficult than riding fast? Talk about how there are times when we must maintain control of our bikes when riding slowly. For example: riding through a narrow passageway.

Catch the Ball

This game reinforces the ability to ride with one hand while maintaining control of the bicycle.

1. The instructor stands in the middle of the blacktop area.
2. Students ride clockwise in a large circle around the instructor
3. The instructor tosses a tennis ball to any rider’s right hand as they circle.
4. Riders try to catch the ball with their right hand, and toss it back to the instructor. If a rider drops the ball, they are eliminated.
5. As riders are eliminated, the remaining riders form a smaller circle. The game becomes harder as tosses become shorter and riders have less time to react when catching the ball.
6. The difficulty level can be varied by either throwing the ball to the same spot so riders know when it will be their turn, or by throwing to a random rider.

Variation: Change direction (counterclockwise) so students are catching the ball with their left hand.

CAMPUS SUPPORT GUIDE

To properly implement this curriculum, it is vital to secure the support of the school, teachers, and parents. Everyone has an essential role to play. Learning how to ride a bike is a childhood milestone. It gives kids a burst of freedom and joy that will stick with them well into adulthood. This is a chance for both parents and staff to be a part of this defining moment!



Administration

Getting support starts with the school administration. Consider giving a short presentation to key staff on the value of the program and its positive impacts throughout student's lives. You can use the attached info sheet as a starting point. Once you have their buy in, it will be easier to get support from teachers and parents.



Teachers

If available during these lessons, classroom teachers will be invaluable in both helping maintain students' focus and assisting in the Learner's Course where students may be struggling. You and the school principal should discuss the program with classroom teachers at least one month in advance of the first lesson, and share the attached handout. This will give adequate time to get their students excited, and recruit parent volunteers. Remind teachers that this is a chance for them to connect with their students in a new way: teaching them a valuable skill while having fun together outside!



Parents

Students' parents make great volunteers help on the Learner's Course, and lead the Group Ride. A great way to recruit parents is to frame this as an opportunity for them to help their student achieve a childhood milestone, all in a safe environment at school. Work with the school to send out an invitation to participate (see [Parent Notification Flier](#)) in this big moment several weeks in advance. Remind them to bring their bikes as well so that they can demonstrate skills to the learners. Consider having them arrive 20-30 minutes before the lesson to help you set up.

Volunteer Duties

To teach these lessons as written, we strongly recommend securing at least 3 assistants: two to run the Learner's Course, and one to lead the Group Ride. If you can get more assistants, even better! More assistants will allow a better ratio of instructors to students. These assistants can be classroom teachers, other school staff, or parent and community volunteers. They will help you by:

- Assisting with lesson setup.
- Assisting with helmet and bike distribution and fitting.
- Helping fix any minor mechanical issues before the lesson.
- Providing 1:1 mentorship of new riders on the Learner's Course.
- Leading the Group Ride.
- If you can get more than 3 assistants, they can serve as pedestrians on many of the Skills Courses, giving students a more real-world experience of traffic scenarios.
- Assisting with lesson cleanup.



Freedom to Ride

Bicycle Skills Curriculum

Info Sheet

Introduction

Learning to ride a bicycle is a key milestone of childhood. It not only fosters confidence and promotes a healthy, active lifestyle, but also gives kids the ability to explore their world—and have fun while doing so! MOVE designed this curriculum to give kids the skills they need to pedal the streets in their community safely. We hope that by learning these skills, students and families will be more likely to consider the bicycle as a viable way to get to school, run errands, and get anywhere they need to go.

Philosophy

Historically, bicycle education has focused on a rules-first approach, teaching kids skills because “it is the law.” While this is undoubtedly true, our goal is to reframe the teaching process. Kids should learn how to ride safely because it gives them freedom and independence. Riding safely means having more fun. Teaching your students these skills with this positive philosophy will not only help them see the benefits of safe riding, but will also make them more conscious and active members of the community.

Structure

This curriculum is built around 8 lessons that will teach your students how to confidently and safely navigate their world under their own power. Each of these lessons are each designed to be completed during a single PE class period.

Your school’s PE teacher will lead the lesson, ideally with the help of a minimum of 3 volunteer assistants. These can include the classroom teacher, school staff, and/or parent and community volunteers. The more adults who can help with these lessons, the better! Especially for those learning to ride, having 1:1 instruction will help them become more confident in their ability to explore the world under their own power.



MATERIALS GUIDE

To teach all of this curriculum, you will need the equipment listed below. If you want to just see the equipment needed for a specific lesson, reference that lesson plan.

- 1 bicycle and helmet for every student (see below)
- 204 small cones
- 54 big cones
- 4 stop signs
- 4 yield signs
- Directional arrows
- Sidewalk chalk
- 8 tennis balls cut in half
- 2 racquetballs cut in half
- 4 sand bags
- 30 safety vests
- 1 bicycle pump
- 1 allen wrench multi-tool
- 1 adjustable open-ended wrench
- 1 bottle of chain lube and rags

Bicycles and Helmets

Students can either bring their own bicycle and/or helmet from home or you can use a fleet of bicycles and helmets provided in a trailer by the school or local partner. If you don't have enough bicycles and helmets, students can take turns. If students will be sharing helmets, you will need the following additional materials:

- Hair nets
- Trash can for hair nets

If you are using a bicycles provided by the school or a local partner:

- Designate an assistant arrive 20-30 minutes ahead of the lesson to help you stage the bicycles. We suggest staging bicycles of similar sizes near each other.
- Designate an assistant to stay 20-30 minutes after the lesson to help you pack up all the bicycles and equipment.
- If the bicycles are arriving via a trailer, see the next page for a diagram of how the bicycles and equipment should be loaded back up after each lesson.

Trailer Organization

Packing a bike trailer is a puzzle. It will all fit in there but you have to put the pieces in right. Here we'll go over some basic rules to help you get everything loaded properly. All cones and other equipment should be loaded into the back of the trailer before the first bicycle goes in.

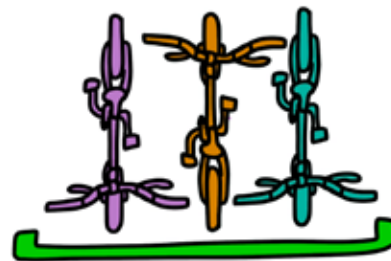
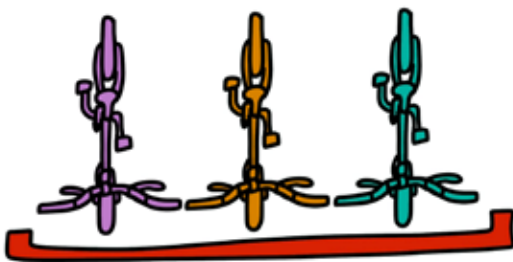
Alternating Bike Placement

The key to fitting all the bikes in smoothly, is alternating floor/hook placement. First, hang one bike on each wall, using hooks that are directly across from each other at the back of the trailer. Then load one bike with both wheels on the floor. Next, repeat with two bikes hanging on the next set of hooks in the trailer. This makes it easier to get bikes into the trailer and lets you stack them closer together.



Alternating Bike Direction

As you load the bikes in, switch the direction that each bike is facing. For bikes on the floor of the trailer, this means having the handlebars facing the opposite direction as the previous floor bike. For bikes on the hooks, this means alternating between hanging by the front wheel, or by the back wheel. This helps ensure that handlebars don't come into contact with each other, allowing you to pack the trailer tighter.



VOLUNTEER GUIDE

Thank you for helping us teach our students how to ride! You aren't just teaching them how to pedal safely, but giving them the freedom to explore under their own power. The lesson will last approximately 60 minutes. We ask that you arrive 20 minutes early to prepare for the class.

If a bicycle will not be provided by the school, please bring your own so that you can demonstrate skills to students.

You will be assigned to one of three courses:

1 Learner's Course

Here you will help take students through the basics of riding a bicycle. These students will be new to riding. We break it down into focusing on three core skills:



Braking

Slowing down and stopping



Balancing

Riding on two wheels



Pedaling

Moving under your own power

As the students learn each of the skills, walk around the group answering questions and demonstrating to students where necessary. Here are a few tips:

- It is important to avoid holding students' seats and handlebars. They will learn best if you show them how it is done on your bike, then let them try it on their own.
- Remind students to look forward, not down at their feet. Their bike will naturally go where they are looking, so this will help them maintain a straight line while riding.
- As scary as it may seem, remind students that the faster they go, the easier it is to balance.
- If a student is working really hard and not getting it, take a break and tell them they're doing a great job!
- If students complain about their hands being tired, remind them to relax their grip.

2 Group Ride

Here you will lead those students who are waiting for their turn on the Skills Course on a ride around the outside of the lesson area. When starting out, remind the students to maintain 1-2 bike lengths between them. Periodically, you will call out skills like “stopping” or “left turn/ right turn” for the students to practice. The instructor leading the class will brief you on the particular skills that you should be calling out based on the particular lesson.

3 Skills Course

This is the core of the lesson. Here you will help the PE teacher guide students through an obstacle course as they practice key skills. Depending on the lesson, you may be asked to:

- Space students out as they enter the Course.
- Act as a pedestrian at a simulated crosswalk, randomly crossing in front of students so they can practice yielding or stopping.
- Stand on a particular part of the course and hold up a random number of fingers for students to identify over their shoulder. This simulates “scanning” over their shoulder for traffic coming from behind.

Have fun!

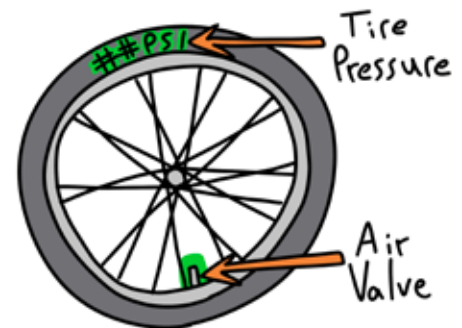
You are giving kids the freedom
to explore their world
under their own power.

MAINTENANCE GUIDE

If your school is providing a fleet of bicycles for students to use, it is crucial to keep them in good shape. Properly functioning bicycles means fewer mechanical issues that derail the fun! Here is the regular maintenance that you should perform on your bikes before each lesson:

Tires

- Check to ensure that all of the bikes have adequate air pressure in the tires. They should feel firm when squeezed. If any tires feel soft, pump them up to the pressure recommended on the side of the tire. It will usually be between 35 and 65 psi.
- If any bikes have flat tires, replace the tube or contact your community partner/local bike shop for repairs.



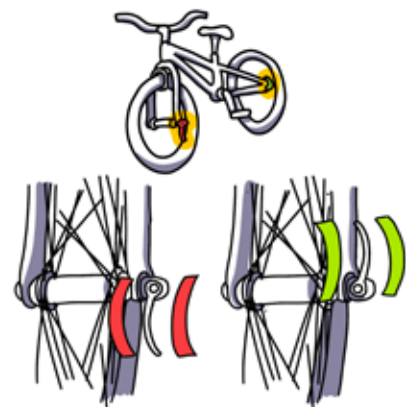
Chains

- Lube the chains on all the bicycles. This is done by putting a drop of oil on each link in the chain, backpedaling the chain several times, and then wiping off the excess oil.



Quick Releases/Axles

- Check to make sure that the wheels are secure on all of the bikes. Holding the bike in one hand, wiggle each wheel back and forth. There shouldn't be any play. If there is, try one of the following:
 - On many bicycles, there is a lever (quick release) on the hub of the wheel that holds it in tight. Flipping the lever into the tightened position should take a little bit of force. If it flips up too easily, or doesn't stay closed, tighten the nut on the other side of the hub and then close the lever.
 - Some bicycles may have wheels that are held in place by bolts or a thru-axle instead of a quick release. Use your large adjustable wrench (axle bolts) or allen wrench (thru-axle) to tighten.



If any more complex mechanicals pop up during this regular maintenance or during a lesson, place that bike aside, and either take it to your local bike shop, or contact your community partner to come asses and fix.