ENGAGING YOUTH IN URBAN BIKING AND BIKE SHARE



A Toolkit From Philadelphia

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INTRODUCTION

Dear Reader,

Welcome to the Engaging Youth in Urban Biking and Bike Share Toolkit!

Using the case study of Philadelphia's Indego bike share program, this Toolkit is an exploration of the relationship between bike share programs and youth in cities, providing stories, inspiration, and guidance for other cities.

The City of Philadelphia's bike share program, Indego, has made equity, diversity, and inclusion central priorities thanks to support from the Better Bike Share Partnership, made possible by the JPB Foundation (see page 5 for more info).

Bike share systems that are concerned with questions of equity, diversity, and inclusion must explore ways to work with young people in the communities they serve. Young people are the heart of communities, and the future of bike share, both from a ridership and workforce perspective. In this Toolkit, you will find stories, ideas, and strategies from Philadelphia for meaningful engagement between bike share systems and young people, including workforce development partnerships, a Youth Bike Share Ambassador program, age-inclusive community outreach, and more.

If the bike share systems spreading through our cities are to be sustainable, equitable, and accessible to diverse residents into the future, it is important that they work closely with young people now. This is an attempt to start the conversation about youth and bike share—we are excited to see it grow and develop.



Happy riding!

Bicycle Coalition of Greater Philadelphia Neighborhood Bike Works City of Philadelphia Office of Transportation and Infrastructure Systems Better Bike Share Partnership

This toolkit is made possible by the Better Bike Share Partnership, an initiative funded by the JPB Foundation.



About the Better Bike Share Partnership

In April 2015, the City of Philadelphia launched the Indego Bike Share Program with the goal of creating a bike share system that is used and valued by a diverse cross-section of Philadelphians.

The Better Bike Share Partnership is a collaborative effort between Philadelphia's Office of Transportation and Infrastructure Systems (OTIS), the Bicycle Coalition of Greater Philadelphia (BCGP), the National Association of City Transportation Officials (NACTO), People for Bikes, and Bicycle Transit Systems. Its goal is to create a socially equitable and replicable bike share model for Philadelphia—and beyond. The Better Bike Share Partnership is made possible by the JPB Foundation. With the launch of Philadelphia's bike share system in April 2015, the City of Philadelphia, Indego Bike Share Program, and the Bicycle Coalition are working together to address barriers to bike share use among low income communities and communities of color through a variety of strategies. As we do our work locally in Philadelphia, NACTO and People for Bikes are developing best practices to make bike share better and more equitable across the country.

An important theme that emerged from our Better Bike Share Partnership work in Philadelphia was the importance of engaging youth. Hence, this toolkit.



HOW TO USE THIS TOOKIT

PARENTS

Biking is a wonderful family activity. Communities with bike share have even more access to this healthy and fun form of transportation and recreation. Parents and those who want to teach the children and youth in their lives about the joys of bicycling and how to bike safely can use this guide to do just that! Start with drills from the bicycle rodeo (page 45) and refer to the sections on ride safety before you hit the streets (Suggested pages: Helmet safety, page 49, ABC Quick Check, page 32, Routing, page 26). Parents and adults using bike share can teach their kids about how bike sharing works using the lesson on page 43.

TEACHERS AND SCHOOL STAFF

If you are a teacher or work at a school and want to start a bicycle program, this toolkit will be of great use to you! Check out the story on page 12 for information on how other schools have organized biking programs. If your city has a bike share system, students 16 and older are often eligible to ride with parent permission; if you work with younger students, they can benefit from learning the ropes of riding before they reach the age of riding bike share. Use the "Starting a Youth Bicycle Program" to brush up on safety standards, leading a ride, and other tips. Make sure to contact local bicycle organizations and Safe Routes to School programs in your area for assistance, too!

YOUTH LEADERS

If your city is launching a Bike Share system, you and your peers as youth leaders are key players in this exciting process! We have found that youth voice has a special power in spreading awareness and creating change. To learn how youth in Philadelphia played a critical role in our Bike Share program, start with the 'Connecting Youth and Community to Bike Share' stories starting on page 8. Rather than act as a road map, these stories are meant to inspire your creativity and foster your own leadership skills. Imagine what you could accomplish in your own city! Once you have some ideas of your own, scroll on down to the Resources section on page 58, and reach out to us at NBW if you would like to consult!

BIKE SHARE OPERATORS

Bike share operators have a lot to juggle—getting a system up and running, maintaining the bikes, providing customer service, marketing their system, and more. If you work at a Bike Share operator, it may feel overwhelming to figure out how to incorporate youth into the work you are doing. Check out page 9 to see how a Youth Bike Share Ambassador program could support your marketing and community engagement goals, and see the sidebar on one young person's experience with long-term employment at Bicycle Transit Systems. Read the "Power Corps" story on page 13 to see how strategic partnerships with city agencies that work with young people can support your outreach and marketing work, too!

COMMUNITY BIKE SHOPS

Whether or not your Community Bike Shop is youth-focused, use this toolkit to get some ideas about how you might be able to partner with your local bike share program to provide opportunities to youth and their families in your community! You may be able to set up a Youth Bike Share Ambassador program (page 9) or offer opportunities for adult family members to ride with young people you work with (page 14). It may also be worth exploring the "Starting a Youth Bicycle Program" section to see the specifics of how Neighborhood Bike Works leads rides, teaches bike safety, and more.

ADVOCACY GROUPS

Bicycle advocacy nonprofit organizations like the Bicycle Coalition of Greater Philadelphia frequently engage in both advocacy and education work. In Philadelphia, that education work encompasses programs for both youth and adults: Safe Routes Philly, Cadence Youth Cycling, Women Bike PHL, and the Better Bike Share Partnership. Bike share is a powerful tool in the toolbox of bike education practitioners, and can be layered into existing programming! Check out the stories in "Connecting Youth and Community to Bike Share" for inspiration about what this could look like.

CONNECTING Youth & Community to Bike share

In Philadelphia, partnerships between youth and bike share have taken many forms. In this section, you'll hear stories of various events and strategies we have used to try to connect young people to bike share in Philadelphia. You'll read about Youth Bike Share Ambassador program, a young person employed at a bike share operator, intergenerational bike rides to urban farms, a high school bike club, and more. Use these stories as a jumping-off-point and an inspiration—maybe your partnerships won't look exactly like Philly's, but what stories will YOU tell about how you connected youth and bike share?



FEATURE STORIES

Youth Bike Share Ambassadors

Farmers' Market Ride

Schools — CAPA Bike Club

PowerCorpsPHL

Family Ride

YOUTH BIKE ENGAGEMENT: A TOOLKIT FROM PHILADELPHIA

Youth Bike Share Ambassadors

Philadelphia's bike share program, Indego, has prioritized equity and inclusion from the start as part of the Better Bike Share Partnership. As part of this effort, youth have been engaged in various ways in Indego, including as Youth Bike Share Ambassadors.

The birth of the Youth Bike Share Ambassador program expanded the Better Bike Share Partnership by looping in a local youth-focused community bike project, Neighborhood Bike Works, to organize young people on the front lines of outreach to lower income neighborhoods. Youth from Neighborhood Bike Works advanced tier of programming were eligible to become Youth Bike Share Ambassadors after a series of trainings and networking events.

Our first visit to the Bicycle Transit Systems (bike share operator) warehouse allowed NBW's advanced youth mechanics the opportunity to learn about the Bike Share system, help build many of the Indego bikes before the launch, and rub elbows with Indego staff. A hands-on introduction like this provided a comfortable environment for both the NBW youth and the Indego staff to build relationships that ultimately led to multiple youth securing longterm employment within the Bike Share system. See more about long-term employment in the sidebar about Yarrow!





YARROW was one of the NBW teens in the Leadership and Advanced Mechanics Course that succeeded at using the Youth Bike Share Ambassador program as a stepping stone to long term employment.

"My work with NBW helped me get a long term job with BTS because as part of the Leadership and Advanced Mechanics Course, my Smart goal was to get a job as a bike mechanic by the date of graduation. NBW helped me so much in finding out about the job, creating my resume, and connecting me with people there. NBW helped me feel confident in applying for that position."

Yarrow reflected on how valuable this first exposure was to forming her professional standards in the bicycle industry and beyond:

"I enjoyed the people I was working with and how much a part of the team I was. I never felt put down for being less experienced, female, or younger. Since I was there from the beginning I learned right along with everyone else as the program was developing. We were all figuring it out together."

As an avid traveler, last fall Yarrow took off to explore the country. She took her YBSA training with her, working and volunteering for bicycle-centric organizations in Tucson and New Orleans. She kept in touch with her BTS co-workers while she was away, who said she was welcome to "come back anytime." We are delighted to hear that Yarrow will be joining BTS again this spring, as they build and launch a whole new fleet of Indego bikes to be shared on the streets of Philadelphia! Following their training, Youth Bike Share Ambassadors were employed to staff a number of outreach events. We immediately saw the incredible value our youth had in raising hype about Indego among their community members. The YBSA's shared a natural enthusiasm for the Bike Share System that pulled people in and made them want to get involved. Zarif, 14, shares one particularly memorable encounter: "There was this one lady that we got to make so happy because we let her test ride the Indego bike. She hadn't ridden a bike in so long but since we brought extra helmets. She got to try it out. She was so happy."

After our first year of the YBSA program, we are excited to report great success in both extending access and knowledge of Philadelphia's Bike Share system to communities that had been harder for us to engage previously, as well as the impact on the YBSA's themselves. Malik, 17, reflects: "Being a Youth Bike Share Ambassador helped me grow because it helped me talk to people. I find that I am more capable of talking to people freely and confidently now."

Moving into our second year, we are excited to incorporate valuable feedback from the participating YBSA's to expand the program, involving more engaging activities and services for community members including youthled group rides on Indego bikes, and mobile mechanic pop-ups to offer free tune ups to kids! Ultimately, we have designed and will continue to adapt this program to meet the unique needs and interests of Philadelphia's cycling community. We encourage you to make the same considerations to create a program that incorporates your city's passions, priorities, and unique flavor!





Farmers' Market Rides

In 2015, the Bicycle Coalition of Greater Philadelphia's Better Bike Share Partnership team had a unique opportunity to partner with the Food Trust and Cadence Youth Cycling team to lead rides from the Food Trust's Common Ground Marketplace to various urban farms in North Philadelphia.

The Food Trust is a Philadelphia-based nonprofit working to ensure that everyone has access to affordable, nutritious food and information to make healthy decisions. Their Common Ground Marketplace was a "multifaceted market" in North Philly which provided resources such as mental health check-ups to community members alongside fresh food.

Cadence Youth Cycling is a program of the Bicycle Coalition of Greater Philadelphia fostering healthy habits, independence, and leadership, one ride at a time. High school students learn about teamwork, perseverance and goal-setting through the sport of cycling. The Bicycle Coalition also works to connect these young people to volunteering and leadership development opportunities as part of their experience with the program.

Involving youth from the Cadence Youth Cycling team in Better Bike Share outreach at Common Ground Marketplace was a win-win. In this case, the youth had a lot of experience with riding in groups and were confident urban cyclists. This allowed us to rely upon their experience and expertise to safely lead tours with people who were newer to biking in the city. We kept a casual conversational pace and the youth talked about their experiences with cycling which made the rides a lot more fun.

The youth also stood at the Indego table at the market between tours and talked to people in the community about bike share.

"Our all-stars in Cadence Youth Cycling have had an amazing experience by volunteering their time to the Common Ground Marketplace. They offered a vast amount of support in helping to support the group rides to local urban farms. They helped keep everyone safe, learned a lot, and gained a lot of experience in helping the community!"



-Cy Maramangalam, Program Manager, Cadence Youth Cycling

Schools — CAPA Bike Club

Schools are a great resource and potential entry-point into communities for a bike share system. This is can be particularly true when it comes to underserved communities as public schools are often in a unique position to know about the needs of their students. In most U.S. cities, bike share users must be at least 16 years old to use the system, and this keeps most high school freshmen and sophomores from accessing the system. However, there are still positive ways to formally engage high school students. The Better Bike Share Partnership's work with Kensington High School for the Creative and Performing Arts (KCAPA) is one example of a successful partnership between Bike Share and a high school.

Kensington High School for the Creative and Performing Arts

KCAPA High School is located in North Philadelphia. The majority of the students identify as Latino (60%), with the next largest majority of students identifying as African-American (28.8%), and all students are categorized as Economically Disadvantaged, according to the School District of Philadelphia.

The Partnership

The Better Bike Share Partnership's (BBSP) work with KCAPA came about thanks to BBSP's connection to Safe Routes Philly (SRP). The National Center for Safe Routes to School has programs based in different cities across the country that promote biking and walking as fun, healthy forms of transportation. The SRP Coordinator, Waffiyyah Murray, is based out of the Bicycle Coalition of Greater Philadelphia (BCGP) along with some BBSP staff. A Physical Education teacher at KCAPA reached out to Waffiyyah because they were interested in having some bike-focused activities at the school. Students had expressed interest in biking, but didn't have access



to helmets, locks, or bikes. That's where the BBSP was able to come in. We provided a bike safety class for the students followed by monthly group rides.

There are a few logistical challenges that come with connecting high school students to Bike Share. In addition to the age limit, this type of work requires there to be at least one Bike Share station within walking distance of the school. If the primary component of this partnership is group rides, then you also need to have places for the students to bike to.

Luckily, KCAPA is just a ten-minute walk away from the nearest Bike Share station and within reasonable biking distance of multiple parks as well as a waterfront. We meet at KCAPA once a month, after school, and walk to the Bike Share station together before starting our ride. BBSP staff at BCGP provide helmets for the all the riders and lead the ride along with a KCAPA teacher. The students seem to have a lot of fun and we try to take their feedback into account when planning the next month's ride. The students will also get a tour of Bicycle Transit System's (the operator of Indego) warehouse to introduce them to the bicycle industry as a potential career path.

KCAPA is the first high school that SRP and BBSP have worked with on this level. Now that we've established a replicable model, however, we look forward to recreating it at other high schools in the future.

PowerCorpsPHL

It's possible that your city will have a number of "youthserving" organizations, but each of those organizations could have a different definition of "youth." There are many ways to partner with different youth-serving organizations and they will vary depending on the youth population being served. The Better Bike Share Partnership's work with PowerCorpsPHL, a program that admits 18–26 year olds, is one example of a partnership between Bike Share and an older youth-serving organization.

About PowerCorpsPHL:

PowerCorpsPHL is a City-run AmeriCorps program that launched in September 2013. The program is designed to support then-Mayor Michael Nutter's environmental stewardship initiatives, as well as the City of Philadelphia's youth violence prevention and workforce development priorities. PowerCorpsPHL enrolls 100+ youth annually in a program that provides participants the opportunity to develop the necessary skills to become environmental stewards, secure meaningful work, and become civically engaged members of society.

The Partnership:

PowerCorpsPHL and Indego were a natural fit. Not only do both programs promote environmental sustainability, but PowerCorpsPHL's focus on workforce development lines up with the values of BBSP. BBSP sees workforce development as one of many important tools to address the barriers to, and increase the use of, bike share systems in underserved communities.

The partnership became tangible when Jaleel Williford and Chilon Carroll, two PowerCorpsPHL alumni, were hired by BBSP to work on Indego's first Street Team doing outreach work before the system had launched. Then,



in April 2015, PowerCorpsPHL members participated in Indego's launch event. They were one of the many community groups who joined in on a massive group ride to deliver the new bikes to their stations across the city.

During the 2015 season, BBSP launched a pilot program with two of the 2015 PowerCorpsPHL crews. Eighteen corps members participated in the program and received discounted passes to help them get to their training program work sites. During the job placement assistance process, participants are encouraged to use Indego as a transportation option.

In November 2015, the participants got a behind-thescenes tour of Indego's warehouse and the BBSP team led an Indego Street Skills session and group ride. The session reviewed rules of the road and strategies for safely riding in the city. Following the session, 15 corps members, and a few BBSP staff, pedaled together to nearby Penn Treaty Park, where some of the corps members mentioned they'd recently worked on repainting railings and more. Since then, corps members have continued to regularly use their discounted passes to their work sites and BBSP is looking toward more engagement with this important partner.

Family Ride



All-ages rides—with youth on youth bikes and adults on bike share bikes—can be a great strategy to engage both youth and adults in bike programming together. It can be a way to help adults try out bike share who might otherwise not, and allow young people to see how bike share works even when they are too young to ride themselves yet.

In the summer of 2015, Bicycle Coalition of Greater Philadelphia Safe Routes Philly coordinator Waffiyyah Murray worked with the McDaniel Middle School summer camp in South Philadelphia on bike safety and encouragement activities, teaching bike safety for the 5th-8th grade students in attendance. As a culminating event for the series, Waffiyyah worked with the Bicycle Coalition's Better Bike Share team to hold a group ride with the camp, from 21st and Tasker in South Philly to the nearby Schuylkill River Trail.

Over the course of several weeks of camp, "Youth participated in bike safety lessons where they learned bike safety tips such as proper helmet fitting, bike ABC's—how to check the air, brakes, and chain on your bike before riding—as well as how to uphold the 3 B's of biking - be Responsible, Be Visible, Be Predictable," Murray said. "We also did a bike rodeo, which is a bike obstacle course on bike safety techniques including starting, maneuvering, balancing, and hand signals. Youth were given helmets from Indego to keep them safe while biking, and information about Indego and how it works to take home and share."

Murray noted that the reason the ride went so well was because of the relationship-building work and safety activities she had done leading up to it. Even at the orientation at the very beginning of the camp, at the orientation, she had a table where she was able to engage parents in talking about Indego and the bike activities she had planned for their children, offer Indego test rides for parents, and give them a heads up about the ride opportunity coming at the end of the camp. Students brought home additional information about Indego and about the ride to their families over the course of the camp, so that parents could get used to the idea and hopefully decide to attend the ride.

For this ride, the Bicycle Coalition provided youth bikes they owned for anyone that didn't have a bike -- and some youth also brought their own. It was important to check all the bikes that youth brought for basic safety before setting off. Murray's main tip about ride logistics when you have both youth and adults who are new to riding was this: "Make sure you have enough staff! Make sure you're thinking about the staff-to-everyone ratio, not just the staff-to-youth ratio, when some of the parents and camp counselors are new riders, too."

STARTING A YOUTH BICYCLE PROGRAM

This section is a guide to riding a bicycle safely with youth in the city. Riding in an urban environment is different from riding on trails or for sport. In the city, a bicycle is a legal vehicle, treated the same as a car. We've developed this section to present the framework that whether you are starting a youth ride club or doing a one-time ride, there are important considerations.



NOTE:

The following pages refer to bicycle laws specific to Philadelphia. We recommend that your group conduct research on local cycling laws for your city or town before you get started with riding with youth in your city.

Developing a Ride Program That Works for You

Getting youth out on bikes can be a rewarding experience. It also requires planning and preparation. Whether you plan to ride with a group of youth on one fun adventure or you are in a position to develop a ride program engaging youth on bike rides for an extended period of time, the following pages will provide you with useful tools and important considerations.

First and foremost, developing and designing an event or program that works for you and meets the needs of your youth is key. We recommend having paid staff from your organization take on the responsibility of your ride program and dedicate the time to prepare and plan accordingly. Additionally, having the support of trained adult volunteers can help provide extra supervision, engagement, and coaching for young participants.

Here are some important factors to consider for the success of your program.

- Liability
- Parent/Guardian Consent & Permission including basic health information (ie. Allergies) and Emergency Contact information
- Age range of youth participants
- Proficiency of youth participants (particular to biking)
- After-school vs. weekend programming
- Ride destinations and route planning
- Knowing your city and potential hazards
- · Ratio of adults to youth on every ride
- Bikes! Borrowed used, bought new, or owned by participants, these are guaranteed to need attention.



The following pages will walk you through some key elements to help you prepare for your ride program.

Neighborhood Bike Works Snapshot

Neighborhood Bike Works is a non-profit organization located in West Philadelphia and has been running youth bike educational programs since 1996. Each year we serve approximately 500 youth between the ages of 8-18 through out-of-school time programming. New youth sign up for our entrylevel programs through an application waiver that must be filled out and signed by a parent/guardian. Once enrolled, youth participants learn the basics particular to bike repair, maintenance, and ride safety. All beginnerlevel youth must pass a Safety Rodeo course with us before attending a bike ride. We have full-time and part-time staff who manage administrative tasks to support programs and dedicated staff instructors who are trained to work with youth from diverse backgrounds. There are always two trained staff on bike rides with 6 or more youth as well as an additional 1-3 adult volunteers who accompany larger rides. We offer many ongoing program opportunities to youth who wish to continue building skills, learning more advanced mechanics, and cycling for recreation or sport.



Notes



Expectations for Staff

The staff of your ride program are ultimately responsible for the youth participants. Before starting a ride event or program, be sure to provide staff with appropriate training and clear expectations of their responsibilities. Here's a quick list of recommended trainings and expectations:

- Clearances required in accordance with PAHB435 including Pennsylvania State Criminal Record Check, Pennsylvania Child Abuse History Clearance, and FBI Clearance for residents who have lived outside of Pennsylvania at anytime in the previous 10 years.
- First Aid & CPR: The American Red Cross or the American Heart Association often offer these trainings in cities across the country, but be sure to check what other local resources exist in your area.
- Positive Youth Development: There are many great resources on the Internet that help folks learn best practices in youth work. Here are a couple that we recommend:
 - National Clearinghouse on Families & Youth—Online Training http://ncfy.acf.hhs.gov/online-training
 - Community Network for Youth Development—Youth Development Guide https://s3.amazonaws.com/sparkaction-pdfs-site/YD+Guide.pdf
- Set a good example: In the classroom or on a ride, it's important that staff lead in a positive way. Staff are ultimately responsible for the safety and well-being of the group and this includes physical and emotional safety. Be considerate that some youth may be feeling anxious, scared, or uncomfortable when on a ride. Be sure to set an example as a courteous bicyclists especially when sharing the road with motorists and pedestrians.
- Be prepared: Make sure to have a working cell phone for emergencies, proper clothing for the weather, gear, basic tools, water bottle, and a safe bike.
- Wear a helmet: Make sure that it is properly fit and adjusted.
- Practice safe riding skills: Familiarize yourself with basic rules of the road and any specific local laws such as
 - ride in the bike lane or on the right side of the road if there is no bike lane,
 - use proper hand signals,
 - · stop at yellow and red traffic lights as well as stop signs, and
 - communicate verbally with others in your group as needed.
- Set group standards that everyone agrees to: Prepare for the unexpected! Prior to a ride, be sure to identify possible scenarios and come up with a plan of action. What will your group do if...
 - Someone gets a flat
 - The group gets split up at a traffic light
 - There is a double parked delivery truck in the bike lane
 - A participant cannot keep up with the group
- Facilitate a process of learning with your youth: Engage youth in lessons on what they can do to get ready for a bike ride. Refer to the lesson plans in this section for more information on how to help youth prepare for a ride.

Volunteer Guide

Enthusiastic volunteers with a love of riding will be a fantastic asset to your ride event or program. Be sure to provide them with an orientation to your organization and training for program activities. We encourage you use best practices for volunteer recruitment. It is best to research laws in your state for volunteers who work with youth such as requirements around background clearances. For example, in the state of Pennsylvania, volunteers whose assignment brings them into direct contact, in any way, with youth to have all clearances required in accordance with PAHB435 including Pennsylvania State Criminal Record Check, Pennsylvania Child Abuse History Clearance, and FBI Clearance for residents who have lived outside of Pennsylvania at anytime in the previous 10 years.

Setting clear standards and expectations is important as well. Refer to the list of expectations for staff on page ?? and use it as a guide for your volunteers.

Additionally, the section titled Urban Riding Basics on page ?? could be used as a training tool to make sure that staff and volunteers are all on the same page.

What Volunteers Should Bring

- Helmet
- Clothing appropriate for the length and destination of the ride
- Weather-appropriate gear: rain jacket, warm layers, sunscreen, sunglasses, etc.
- Water bottle
- Healthy snack
- A bike you are comfortable putting miles on
- Spare tube for your bike's tires
- Basic repair tools
- · Any unique tools specific to your bike

Helpful Hints for Helpful Volunteers

- Help youth conduct an ABC Quick Check on their bikes before the ride starts (p. ?)
- Bring a backpack or panniers to help carry extra water bottles, first aid kit, or snacks
- Keep riders safe by helping the group get through intersections, blocking traffic, or holding up the front of the group if separated
- Encouraging coaching
 - Get to know your youth
 - Mentor youth on cycling tips (gears, hydration, clothing, etc.)
 - Cheer youth on when getting up a steep hill
 - Encourage them to push themselves beyond what they think is possible



All volunteers must represent themselves as safe and well- mannered mentors. We recommend recruiting committed adults who have desire to inspire youth through bicycling.





Urban Riding Basics

Regardless of one's age, all bike riders should learn and be reminded of important laws and techniques for becoming a more mindful and responsible bike rider. We recommend that adults receive training in Urban Riding Basics through this toolkit or seek out similar courses in your area. Also, adults should be prepared to teach and frequently remind youth of these guidelines.

Laws

- 1 A bicycle is a legal vehicle. Bicycles traveling on roadways have all the general rights and duties of drivers of vehicles. That means ride with traffic, obey all traffic signals and use hand signals to indicate, turning, slowing or stopping (see page 37).
- 2 Sidewalk riding is illegal in Philadelphia if you are over 12 years of age. You must walk your bike on the sidewalk. It is also unsafe. Cyclists double their chance of a crash by riding on the sidewalk (This is important to emphasize, since many people who ride on the sidewalk think it is safer!).
- 3 Ride with lights from dusk until dawn. You are required by law to have a front white light and rear red reflector, but we recommend a red light. Flash mode is recommended for the rear. Most lights are not intended to see the road, but to be seen by others.
- 4 It is illegal to wear headphones while riding a bicycle in Philadelphia. It is also very unsafe because you cannot hear your surroundings—all your senses are important when you're riding!

Lane Positioning and Riding Technique

Riding a bicycle in traffic is a dance that you lead. Drivers don't want to hit you; your confidence and communication will help them know how to act courteously toward you. A car is probably going to pass you one way or another—you have the power to make them pass you safely instead of unsafely. It's important to know the basics when you start, but all the details of what to watch for will come over time.

Some points of emphasis:

- **1** Be predictable:
 - Ride in a straight line.
 - Don't weave in and out of parked or moving cars.
 - Use clear hand signals.

⇔TIP

Quiz your students on bicycle laws! Give them 60 seconds to come up with all the bicycle laws they can think of. Afterwards, list actual bicycle laws to compare perception with reality.

- 1 Make eye contact. This allows you to communicate with other vehicles on the road, especially at stop signs and intersections.
- 2 Position yourself properly in the lane.
 - If there is a bike lane, you should (but are not legally required to) ride in it.
 - On streets without a bike lane, ride where you imagine the right wheel of a car to be. The law says you should ride as far to the right as practical—as far to the right as is safe for you. Taking the lane forces motorists to pass with sufficient space between them and you (see page 38 for more on "taking the lane").
- 3 On any street, stay clear of the dooring zone. People getting out of parked cars do not often look for cyclists. We recommend riding with 4 feet between you and parked cars:



Dooring Zone



Taking the Lane

Turning Left

You can always turn like a car. Simply merge to the left, signaling and looking over your shoulder, and then proceed with the left hand turn as you would in a car.

Trolley Tracks

Always cross trolley tracks at a perpendicular angle. Be especially careful if the roads are wet:



Trolley Tracks

Right Hooks

When you approach an intersection in a bike lane, and there is traffic to your left, be aware for cars who might cut you off by turning right:



Right Hooks



Before the First Ride

Now that you have trained your staff and volunteers it is time to start dreaming up your first ride for your youth! Congratulations! The following pages provide important details and lessons to cover with your group before you venture out on your first ride.



Notes



Materials for Each Ride

We recommend that your ride program staff prepares a first aid kit and spare tool kit for each ride. Make sure that each kit is properly equipped with what is necessary for the ride and be sure to recheck each kit on a regular basis since it is more than likely that you will need to replenish supplies like band-aids and inner tubes over the duration of your ride program.

Spare Bike Tool Kit

These are a few of the basics. Be mindful that different bikes may require different tube sizes or an unique tool to remove wheels.

- Hand Pump
- Inner Tubes
- □ Tire Levers
- Patch Kit
- Adjustable Wrench
- 15 mm Wrench
- Chain Tool
- Chain Links
- Zip Ties
- Multi-Tool (with screw drivers and allen keys)
- Check out Park Tool's MTB-2 Bicycle Rescue Tool

First Aid Kit

Source: American Red Cross: http://redcross.org/ prepare/location/home-family/ get-kit/anatomy

- □ 2 absorbent compress dressings (5 " × 9 ")
- 25 adhesive bandages (assorted sizes)
- □ 1 adhesive cloth tape (10 yards x 1 ″)
- □ 5 antibiotic ointment packets (approx. 1 g)
- □ 5 antiseptic wipe packets
- □ 2 packets of aspirin (81 mg each)
- 1 blanket (space blanket)
- □ 1 breathing barrier (with one-way valve)
- □ 1 instant cold compress
- □ 2 pair of non-latex gloves

- □ 2 hydrocortisone ointment packets (approx. 1 g each)
- Scissors
- 2 roller bandages (3 " wide and 4 " wide)
- □ 5 sterile gauze pads (3 " × 3 ")
- □ 5 sterile gauze pads (4″×4″)
- □ Oral thermometer (non-mercury/non-glass)
- □ 2 triangular bandages
- Tweezers
- First aid instruction booklet

⇔TIP

In addition to medical supplies, we recommend carrying an emergency contact list of all riders (youth, staff, and volunteers) as well as an incident report form and pen to document an incident in case of emergency.

NOTE:

If your organization does not already have a policy for what should be included in a first aid kit, the American Red Cross recommends the following for a family of four, and can be adapted to the size of your ride.



In Case of Emergency

It is recommended that all lead staff go through a CPR and First Aid Certification course before running an on-going youth bicycle program. In the case of a crash, staff that are trained in CPR/first aid should respond immediately, following CPR and First Aid protocols learned in training. Treat every crash as if it is severe in that you respond quickly and efficiently to assess the situation.

Staff and volunteers who are not immediately responding to the injured individual should facilitate crowd control by asking all other bystanders to back away from the person who is injured. That person will also retrieve the emergency contact list in the case that they have to call someone on behalf of the injured person.

In the case of a minor injury (cut, bruise, some blood)

- **1** Remember to use precaution by wearing latex gloves.
- 2 Treat the wound using the first aid kit.
- 3 Make sure that the youth is physically okay to continue on the ride.
- 4 Fill out an incident report form (it can later be filed appropriately). Use a form from your organization or develop one that will work for you based on templates found through simple web searches.
- 5 When you have reached your destination, call the youth's parent and let them know about the incident. Assure the parent that their youth is okay and will continue with the ride.

In the case of a truly severe injury not involving a car

- 1 Follow CPR/first aid first response guidelines by assessing the situation.
- 2 If the person looks badly injured (potentially broken bones, a lot of blood, unconscious, etc.) **Call 911.**
- 3 Treat the person as instructed through CPR/First Aid until an ambulance arrives. The staff person who acts as a first responder will then accompany the youth to the hospital.
- 4 Have a second adult call and report the incident directly to the organization's highest ranked staff person. Do not leave a message with another staff member. Either the staff member or the executive director/principal (or similar) will call the parent(s).

🗘 TIP

Find a class and become certified at <u>http://redcross.org/take-</u> <u>a-class</u>. At least one person on each ride should be trained and certified in CPR and first aid.

- 1 The second adult person is now responsible for the rest of the group. They should move all bystanders away from the crash and continue to monitor them. If possible, bring the rest of the group back to your starting location. If not, find a place far away from the incident so that the group does not have the chance to watch it.
- 2 It will be absolutely necessary to process the incident with the rest of the group. Discuss what happened, how they are feeling, etc. Show empathy and understanding, and listen to the youth. This could be a very influential incident on their lives and yours. They should have a space to talk about it and as staff we need to help them feel safe again.

In the case that a car is involved:

- 1 Asses whether the incident is severe or minor and deal with the situation as you would above.
- 2 If a car is involved in the crash, always call 911. Do not admit any fault. Do not discuss the crash until the police arrive.
- 3 Get information from the driver of the vehicle in the crash: name, address, driver's license number, and phone number. In addition, the year, make, model, and license plate number of the vehicle(s) involved. If there are other drivers or witnesses not directly involved in the crash, get the name and phone number from them as well.

Insurance/Legal

- Find out if your organization has insurance that can help youth and families if they need more coverage after a severe crash.
- Staff should never talk about insurance with families. Always refer families to the executive director or your organization's most senior individual. Staff can say, "the primary concern right now is that your child is safe. Let's make sure they are being taken care of right now."
- Staff should never say "it's my fault" or "I should have seen that."

Notes

The route chosen for your ride will determine how successful and fun the ride is. Accept that no route is perfect, and be willing to compromise. When you are looking for a route to take yourself, look out for:

- Streets with heavy bike usage (strength in numbers, and collective wisdom)
- Streets with bike lanes and lower travel speeds
- Trails
- Views

When you're riding in a group, especially a group including youth, consider:

- Direct routes with fewer turns are easiest, but they won't give participants as much of a sense of negotiating traffic as routes with more turns.
- Left turns may be more difficult at tricky intersections (multiple lanes, major crossings without traffic lights, traffic lights without a green arrow).
- Streets with significant potholes or debris in the bike lane can be challenging.
- Streets may have bike lanes, but be aware that cars and trucks may frequently be stopped in the bike lane.
- Depending on your group, hills can be a challenge to beginner riders. Avoid major hills until you feel confident that your group can overcome them!

Strike a balance between exposing students to any and all road conditions, and being realistic about what routes will work well for your group. As your group advances, you may even incorporate route planning techniques into your lessons.

⇔ TIP

To ride safely in the city, you must learn to react to the unpredictable: road conditions, driver behavior, cyclist behavior, weather, and more. Remind youth to constantly scan for traffic, signal their turns, and merge into the travel lane as necessary.

Notes

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Ride Positions

For each group ride, it is essential for staff and volunteers to fill particular roles and positions in the ride line. We recommend that all staff and volunteers are trained in their responsibilities and review these briefly before each ride. Below are descriptions and diagrams of each role that is necessary for a group ride.

Sweep



This staff member is ultimately responsible for everyone on the ride. S/he is positioned as the very last person in the ride line where s/he can look out for the group and individual riders who are having difficulty. This ideally is the most senior staff member on the ride or the person who has the best relationships with the youth.

Lead



This staff member is responsible for knowing the route, carrying the map/cue sheet, and will safely lead the group to the destination while maintaining an appropriate pace and slowing down or stopping the group when separated. S/he is often checking over his/her shoulder to make sure the group is together. The lead is ideally an adult staff member or a volunteer who works with the group of youth on a regular basis.

Anchor









Depending on the group size, it is ideal to have 1-3 anchors spread out in the ride line to help keep the group together through communication and safe riding. When the group is split at a traffic light, the Anchor can move to the rear of the front group or front of the second group to get riders through the intersection safely. The anchor is a good position for volunteers, family members with riding experience, or trained youth assistants.

Another important component to ride positions is coming up with a ride line for your youth participants. Here are a few quick recommendations:

- Place your slowest rider(s) in the front of the line. That way the pace of the group is as fast as your slowest rider and no one will get left behind.
- For youth who are beginners, make sure you place them closest to a staff member or trusted volunteer. It's best to keep an eye on these youth frequently throughout the ride and occasionally check in on them to see how they're feeling.
- With more advanced riders, give them an opportunity to shine as a leader in your group by placing them as an Anchor. Be sure to review the expectations with them well in advance of your actual ride.
- Watch out for group dynamics or interpersonal conflicts. For example, you might have to separate a pair of siblings who don't get along well with each other.



Notes

Preparing Youth for Safety

Planning intentional time for preparation and discussion on how youth can be safe in your ride program is paramount. It is important that each person and each bike is safe before even getting youth on bikes. We recommend that three important lessons be taught to all youth in your ride program: Helmet Safety, ABC Quick Check, and a Safety Rodeo. The following pages present lesson plan ideas for each of these.



Notes



Lesson 1: The Melon Drop

This relatively quick lesson dramatically demonstrates why helmets are necessary. It should be done before any bike riding happens, likely in the first or second session of a ride-based bicycling program.

Sequence of Activities

- Engage students in a conversation about helmets. Ask questions about who wears helmets, why people wear helmets, what might happen if people don't wear helmets. As part of this conversation, discuss bicyclist and driver behaviors. Emphasize that wearing a helmet is one part of injury prevention, and most of their safety depends on riding safely, and safe interaction with other road users.
- 2 Prepare the melon: decorate it with a face and hair. Give it a name anything to personify it! Discuss how a melon has a similar shape and consistency to a human head. Fit the melon with a helmet, and adjust it properly as you would for yourself or your students (see next page).
- 3 Drop the helmet-wearing melon: stand on a surface so the melon can be dropped from approximately six feet above ground. Drop the melon so that the helmet is facing down and will hit the floor first.
- 4 Examine the melon. It may be intact, damaged, or broken. Helmets are incredibly effective, but not 100% effective at preventing head injury. Discuss helmet effectiveness and the severity of injuries when not wearing a helmet.
- 5 Drop the melon without a helmet: repeat the previous drop, but this time the melon does not wear a helmet. Examine the damages.
- 6 Conclude with a discussion about helmet safety. Whenever someone falls and hits their head, they must be closely observed for 24 hours. Helmets are single crash, only, meaning that any time a helmet is in a crash, it needs to be replaced. The naked eye cannot determine whether a helmet is still intact, since damage is often hidden in the styrofoam.

Assessment

In this case, conversation the among students and instructor is sufficient for assessment. Ensure all students are engaged in discussion, and are understanding the purpose of helmets.

This lesson is adapted from

"Demonstrating Bicycle Helmet Effectiveness: A How-To Guide," a lesson published by the National Highway Traffic Safety Association (NHTSA). The full NHTSA lesson is available online.



10 – 15 minutes

O Focus Question

Why are helmets necessary?

Materials

- Melon
- Markers
- Helmet that fits the melon with a Consumer Product Safety Commission (CPSC) sticker
- Cleaning supplies
- Ladder or stool
- Floor covered by tarp

Extension Activity

Helmet Fitting

A helmet is only effective if it fits properly. Ensure that each student's helmet fits properly, and that they are aware of how a helmet should feel when it fits.

- 1 Watch Helmet Fitting with Mr. Cy: www.saferoutesphilly.org/students/videos
- 2 Fit the shell of the helmet.
- 3 Fit the eyes: you should be able to see the front edge of your helmet with your eyes.
- 4 Fit the ears: the straps of the helmet should form a **V** under the ears.
- 5 Fit the mouth: the chin strap of the helmet should fit with two fingers of space.

HELMET TIP

Pennsylvania bicycling law Section 3510 states that certified helmets are mandatory for anyone under 12 operating a bicycle. Really, everyone should wear a helmet while riding a bicycle. At least 70% of bicyclists killed in traffic in 2010 were not wearing helmets. (Stat: Bicycle Helmet Safety Institute website).





Lesson 2: ABC Quick Check

The ABC Quick Check should be done before all rides. It will quickly become second-nature. The purpose of the ABC Quick Check is to ensure that each bike is in safe riding condition. The ABC Quick Check provides an opportunity to talk about most parts of the bike, as necessary. It's best to layer information about these systems; an in-depth lecture about the entire bicycle is not the most effective way for students to learn and retain information about the bicycle systems. This lesson gets taught and re-taught throughout the course of any program.

To do an ABC Quick Check on your own bike, work your way through each portion, as follows:

Air: Check the air pressure in your tires. Most tires are marked with the recommended tire pressure. Having properly inflated tires helps you move more efficiently, and reduces the chance of flat tires. You can roughly check your tire pressure without a gauge, though. Use your thumb to squeeze down on your tire. If you can make even a small indent in the tire by pushing as hard as you can, the tire is likely not inflated enough. Inflate it using a pump with a gauge to the recommended pressure.

Brakes: Ensure that your brakes are working properly. First, check your brake pads. The rubber should be soft and smooth. If there is any metal showing, replace the pads immediately. Second, check your brake levers. Lift the bike so the front wheel is off the ground, and give it a spin. Pull back the front brake lever (left hand, generally). The brakes should stop the wheel from spinning, and you should NOT be able to pull the brake lever all the way back to the handlebar. If it pulls that far back, adjust the brake cable tension. Repeat this process with the back wheel, and the right-hand brake lever.

Chain: Ensure that your chain is in good condition. Make sure that it is connected, and that it will do its job to allow the wheels to spin. Lift up the rear wheel of the bicycle and spin the cranks as if you are pedaling forward. The cranks and wheel should spin freely. Also, check the metal of the chain. It should not be rusty! Be sure to lubricate the chain about once a week.

Quick: How are your quick releases? Quick releases are often found on wheels and seat posts. Quick releases should be in the closed position, and the levers should be out of the way of feet or other moving parts. Quick releases should be difficult but not impossible to open and close by hand. The parts they secure need to be tightly held to the bicycle!

⑦ Time

🗱 TIP

Go to saferoutesphilly.org/ students/videos/ for a video on conducting Bicycle ABCs. Check: Check your bike all over! It should look and feel secure. Pick the bike up about two inches and drop it on the ground. Did anything fall off? Is something rattling? Loose objects should be secured.

Sequence of Activities

- 1 1. Begin with a hypothetical story of what could happen by someone who rode a bike without a safety check. This will engage the students, and it should stick in their minds so they will remember to do their own ABC Quick Checks. Ask questions:
 - What could happen if you were riding downhill and the brakes didn't work?
 - What if a quick release wasn't closed, and a wheel feel off?
 - What other problems could come up?
- 2 Take students through the ABC Quick Check, emphasizing that the ABC Quick Check is how they ensure their bikes are safe to ride, each time they ride.
 - Air
 - Brakes
 - Chain
 - Quick releases
 - Check it over
- 3 Demonstrate an ABC Quick Check on a student's bike, talking through the parts of the check.
- 4 Engage students in a conversation about why the ABC Quick Check is important, and what we can learn from it.



Notes

Lesson 3: Safety Rodeo

A good way to assess your youth participants' riding abilities is through a Safety Rodeo. Think of it as an obstacle course for bikes where students get to practice actual hazards that they might come across in the street, but instead in a safe environment where they can try again if they make mistakes.

This lesson describes how to conduct a Safety Rodeo with a group of 12 youth. For this lesson, we have chosen a sequence of seven skills for which the group will have a chance to practice one at a time. For harder obstacles, allow the group to practice multiple times by repeating the obstacle.

Set up: For an effective Safety Rodeo, you'll need to designate a safe, large space out of the way of traffic. We recommend a school playground area, a park, or an indoor school gymnasium. Be sure to walk through the area to look out for hazards such as broken glass or sharp objects if the space is outdoors. You'll want to use the chalk and the orange cones to create a roadway. We recommend drawing out a line that provides the right edge of the road and the orange cones parallel to the chalk line to designate a bike lane. At certain times, youth will need to leave the "bike lane"on the left side to avoid hazards. The cones can be numbered so that it is clear that youth need to weave around them.



Time 60-90 minutes Focus Question How can you practice safe riding skills? Mech. Difficulty Basic Materials 15-25 Orange cones Chalk 2 Frisbees of different

- 2 Frisbees of different colors
- 2-3 Volunteers

NOTE:

In the "Safety Rodeo" section on page 44 of this toolkit, we provide in depth information about how to conduct a safety rodeo including details on different stations. We recommend that you read this section before planning your rodeo.

Sequence of Activities

- 1 Make sure that each youth has a helmet properly fitted to their head and their bike has been given an ABC quick check.
- 2 Have youth form a single file line with their bikes leaving about a foot of room between each rider.
- 3 Give verbal instruction for each safety rodeo obstacle. The instructor should demonstrate each rodeo obstacle for youth, answering any questions they may have.
 - Starting and Stopping: a simple start to make sure youth learn how to properly start on the bike and travel down the center of the bike lane while coming to a full stop at the end.
 - Avoiding Hazards: youth maneuver around objects learning to keep balance and ride at a pace.
 - Turning and Signaling: have youth practice riding with one hand by repeating "Avoiding hazards" while using hand signals when they intend to move left or right around an object.
 - Looking backward: youth are instructed to look over their left shoulder to prepare themselves for oncoming cars when they have to leave the bike lane to avoid a hazard.
 - Double Parker/ Taking the lane: in this obstacle, youth will use skills they learned in obstacles 2, 3, and 4 in succession in order to avoid an imaginary double-parked vehicle.
 - Stop in the box: allow youth to pick up speed in this last obstacle so that they can learn how to properly use two sets of brakes in case of emergency.
- 4 Set up your volunteers in the middle of the course and at the end of each obstacle. Volunteers' job is to look out for errors that your students make or cheer them on when they've successfully completed the skill. Volunteers can also act as hazards such as a double parker. Have them stand in the middle of the bike lane so that it is clear that youth have to avoid them.
- 5 Have students run through each rodeo obstacle, repeating it once to "master" the skill.
- 6 Make note of youth who have difficulty with specific obstacles. Failing at one obstacle does not necessarily mean that they have not passed the rodeo. For example, a youth who feels uncomfortable taking one hand off their handlebars to give a signal can still shout out verbal direction on an actual ride.

⇔ TIP

If you have not been able to conduct the individual rodeo obstacles described in the "Safety Rodeo" section of this toolkit (page 44), this lesson focuses in on a few of the most important obstacles that youth will have to learn/master before they get out on the rode as a group.

NOTE:

Be extra careful to teach youth the proper way to brake quickly so as no one gets hurt when using only their front brake which may cause them to fly over their handlebars. It's also likely that if they only use their rear brake, they may collide into the person in front of them.

Assessment

Bring the group together and facilitate a discussion on how they did individually and as a group. This is an opportunity for participants to give shout outs to each other and identify areas for improvement.

Suggestion: create a scorecard for each youth and grade them on how they did on each obstacle. Using letter grades (A, B, C, D, F) or numbers (3 = awesome, 0 = needs improvement). If you have time, meet with each youth individually and talk about their grades. Make sure you make a plan and set a goal on how to help that youth improve their skills.

NOTE:

If it becomes clear that you have a participant who cannot ride a bike safely, talk with that youth and their caretaker. It is likely that they will not be able to continue in your ride program at this time, but discuss a plan as to how that youth can practice at home and get involved at another time.

SAFETY Rodeo	SCORECARD: For each obstacle, give youth a score for how they did. 3 = AWESOME, 2 = GOOD, 1 = WEAK, 0 = NEEDS IMPROVEMENT
	STARTING AND STOPPING
	AVOIDING HAZARDS
	TURNING AND SIGNALING
	LOOKING BACKWARD
	DOUBLE PARKER / TAKING THE LANE
	STOP IN THE BOX
Riding Safely as a Group

When in a larger group, there are additional considerations to keep everyone safe. How you ride affects yourself, other traffic on the road, and the rest of your group. This section provides an overview of these situations and lesson plan ideas on how you can place your youth participants in the forefront of thinking about safety as they plan their own rides.



Notes

Verbal Signaling

Whenever you ride, you should use hand signals. On a group ride, it is best to add a vocal component to aid in communication. A few verbal signals to use and encourage students to use:

- Going (starting for the first time, or after a stop)
- Stopping
- Right turn
- Left turn
- Car back (when a car is coming from behind)
- Car up (when a car is up ahead on the street, stopped, or going the opposite direction of the group)
- Trolley tracks
- Pothole or other road hazard (glass, gravel, etc.)
- Car door

Everyone on the ride should use these signals whenever they apply. Verbally signaling actions and hazards helps everyone's awareness and safety. Practice these signals and associated hand signs before beginning the first ride, and practice them throughout.



🌣 TIP

Make a verbal game at traffic lights. The first person who goes through the intersection shouts "Bingo!," and remaining riders who make it through shout "Bongo!" Those who don't make it through shout "Cat!". If the entire group doesn't make it through a light, ride forward a short distance and pull off to the side of the travel lane to wait. You can continue on as soon as the rest of the group makes it through the intersection and catches up.

Navigating Intersections

At intersections, follow the rules of the road, as if you would driving a car. Take note that many youth have never driven a car and might not know the basics.

Taking the Lane

When making a left turn, whether at a stop sign or stop light, situate your group in the center or left hand side of your lane. Each rider should practice looking over their left shoulder for traffic, using their turn signals, and proceeding to the center of the lane when it is clear to do so. Although you may feel vulnerable in the center of the lane, it is safer to make left turns from this position as you will be more visible, and won't be at risk of being cut off by a car turning right.



Stop Signs

Philadelphia is full of intersections bound by stop signs. Legally, bicycles are required to stop at these intersections like any other vehicle. The ride leaders should always come to a complete stop to make sure the intersection is clear for the rest of the group to cautiously proceed. It is important to ride close together, if there is a large gap, a car may try to go through it unsafely.



Yellow Lights

If you are already in an intersection, and the light turns yellow, proceed through. If you have not yet entered the intersection when the light turns yellow, stop. On a group ride, you will always have staff beginning and ending the line. Be sure each staff member (or volunteer) understands that they need to stop at yellow lights, and reinforce that behavior in students. Lead staff (see page 8) should always look back after passing through an intersection to make sure the group gets through safely.

Blocking Traffic

At four-way intersections with stop signs, it may make sense for a volunteer to block cars that would be going "through" the line in order to keep the group together. A smile and a wave combined with a line of biking youth tends to suppress potential road rage.

When you need to make a left through a large intersection, it could make more sense to do a (below).



Notes





Lesson 4: Modeling Traffic

The purpose of this lesson is to demonstrate techniques for riding safely in the city off-bike in a classroom environment. It can work well before a safety rodeo, teaching students skills they will need while riding their bikes, but without worrying about the bikes, themselves. It works best in an outdoor or gym space, but can be adapted to a more traditional classroom setup.

Sequence of Activities

- 1 Discuss the rules of the road with youth, as described in the previous section. Begin by giving youth 60 seconds to brainstorm all the rules of the road they think exist for bikes, then revealing the actual rules of the road, listing them on the board as you go.
- 2 Set up the physical space with a stop sign, using any available object (cone, desk, volunteer—be creative!).
- 3 Lead students through the lane, as if they were on bicycles. Take them through several scenarios they may encounter on the road (see Safety Rodeo section for more specific details on these scenarios).
 - Staying out of the door zone/proper lane positioning
 - Making left turns
 - Right hooks while in the bike lane
 - Others such as, potholes, merging out of a blocked bike lane, stopping for a pedestrian, etc.)

⑦ Time

30 minutes

O Focus Question

How do you ride your bike safely in the city streets?

- Whiteboard & markers
- Something to mark off "lanes" and other road obstacles (chalk, cones, masking tape, or chairs if you are in a classroom)

⇔TIP

Safe Routes Philly's "Riding Safe in the City" video is a great resource for you and your students. Find it here: www.saferoutesphilly.org/ students/videos

Lesson 5: Mapping Somewhere Fun

One of the most effective ways to teach youth about safety is by putting them in a position to identify and plan a safe route. Teaching youth about mapping from point A to B can be a perfect rainy day activity or a reward to plan a ride together as a group. It's also a great way to connect youth to learning how Bike Share stations work (see Lesson 6).

Sequence of Activities

- 1 As a group, decide on a destination within a relative distance of your starting point. You might also want to prepare some options that you feel confident your group can ride to such as an ice cream shop, library, park, museum, or something else that will work for your group. To make a final decision, consider having youth split up into groups to nominate and campaign for their preferred location, then do a final vote.
- 2 Using a local city bike map, mapping software, or the internet, have students plan the route. Are they considering roads with bike lanes or those that have less traffic? Are there other obstacles such as steep hills or challenging left-hand turns that they would like to avoid?
- **3** Once they've chosen their route, have them prepare as usual for the ride (ABC Quick Check, Line Order, Safety Regulations).
- 4 Ride to the chosen destination. Discuss how the ride went.
 - How was the route overall? Was the route too ambitious or too conservative?
 - How long did it take? How long would it have taken if they walked, took transit, or went by car?
 - Was the ride fun?
 - Were there any hazards that they wish they could have avoided? If so, what are some important take-aways when planning a route from a map? How can they plan a route in the future to better assess challenges?
- 5 If there's time, incorporate some time for fun. Explore your new destination.
- 6 Ride back to starting location.

② Time

90 minutes – 2 hours, plus time to enjoy your destination

6 Focus Question

How can you use your bike for everyday transportation?

Materials

- Students bikes and their helmets
- Local bike map or mapping software

⇔ TIP

If conducting this lesson during a rainy day, plan to extend parts of this activity for the time you need. Consider lengthening the process for decision-making and introduce students to tactics for debate, advocacy, negotiation, and consensus.

If you need to shorten this lesson time in order to make a quick decision and get out on a ride, we recommend doing as much preparation as possible to present your group with just 2 or 3 options within a relatively shorter distance so that they can focus on planning the route.

Lesson 6: Mapping Between Bike Share Stations

If Bike Share exists in your city, this lesson is a great way to connect youth to Bike Share even if they are not eligible users yet. It builds about Lesson 5 in that it will teach youth how to plan a ride keeping a time limit in mind as Bike Share trips are typically 30 minutes.

Sequence of Activities

- 1 Before the ride, decide on a destination within a few blocks of a bike share docking station. It can be an ice cream shop, library, park, museum, or something else that will work for your group. Choose the route at your (instructor's) discretion.
- 2 Map the route from the closest bike share docking station near your starting destination to the nearest bike share docking station to the destination.
- 3 Prepare as usual for ride (ABC Quick Check, Line Order, Safety Regulations).
- 4 Ride to nearest bike share docking station.
- 5 Re-group at the bike share docking station. Start a timer and ride to the bike share docking station nearest to the destination. Evaluate how long the trip took.
- 6 Lock up student and staff bikes near the docking station, walk to your destination, and regroup.
- 7 Discuss how the group did with reaching the destination within the allotted time.
 - Did you make it on time?
 - Were you riding too fast or slow?
 - Was the route too ambitious or too conservative?
 - Did external factors keep you from making it to the station on time?
 - What are the consequences of being late in docking a bike?
 - What can you do it you think you'll be running late to your destination on a bike share bike?
 - How can bike share help you or your family get close to a destination?
- 8 Ride back to starting location.

② Time

90-120 minutes

O Focus Question

How can you use your bike for everyday transportation?

Materials

- Students bikes and their helmets
- Local bike map or mapping software

SAFETY RODEO

A safety rodeo is a bicycle skills course that helps youth gain confidence on their bicycle in a secure setting by teaching handling skills like stopping and balancing and reviewing common road scenarios like signaling, turning, and avoiding hazards. The rodeo also features bike and helmet safety inspections.

Why Hold a Safety Rodeo?

For many youth who are already experienced riders a safety rodeo will sharpen their skills and ensure that they can safely ride on city streets. For beginners, a safety rodeo will help students learn the basics of safe riding and identify where they need to improve.

A safety rodeo is essential to any program where a group of people will be riding together. It allows an instructor to evaluate the skills students come in with, and helps students quickly learn skills necessary to safe riding on the road. The instruction at a rodeo will ensure that all of the students in your group are on the same page with safety and bicycle handling skills from the start. Safety Rodeos are also a great one-time event to engage students in safe bicycling behavior and sharpen their riding skills. (See Page 29 for more information on organizing the rodeo based on your unique context).



Notes

Planning a Safety Rodeo

- 1 Find a location. Location is key. You will need a large, flat area that's away from traffic. Empty parking lots, basketball courts, open fields, and school playgrounds tend to work well. If permissible to the facility, a large indoor gymnasium will also work.
- 2 Assign Roles for the event.
 - If you are conducting a rodeo with a small group of children in preparation for a bicycle club or just for fun, it can safety be run with two or three adults, assuming there are not more than 15 students.
 - If you are hosting a one-time event for a large group of children, recruit a committee. It will be helpful to have others assist you or your organization in planning and executing the event. A good way to go about doing that is to reach out to different community members (community-based organizations, local youth programs, parents, etc.). Meet with the new committee to assign roles and discuss logistics. (See the Working with Volunteers section on page 9 for more on working with volunteers).

On the day of the event you will need the following roles:

- **Registration captain**: this person welcomes children, enrolls students in the rodeo and collects parent permission forms and liability waivers.
- At least one volunteer for each rodeo station including helmet fitting and bike safety check. Some stations may need more than one volunteer to ensure that operations run quickly and smoothly.
- Rodeo Captain: this person is not assigned to any one role, but rather ensures that the entire event is running on schedule. Duties include keeping track if time, calling out rotation orders, and handing any sticky situations such as injuries or behavior problems.
- **Photographer (optional)**: it is nice to assign one person to take photos of the event so that the Rodeo Captain does not have this added responsibility.

🗘 TIP

Visit the safety rodeo location before committing to it to make sure it is safe for bicycling. No location will be totally perfect. Come prepared to deal with potholes, debris, and slopes by packing a push broom and cones to mark hazard areas

⇔TIP

Use your imagination! The bicycle rodeo station guide is just a starting point. Add whatever you can manage, and what will work best to make

- **1** Gather required materials:
 - Trip tools (everything that goes on a ride): pump, tubes, adjustable wrench, 15mm wrench, multitool, chain links, chain breaker, zip ties, tire levers, patch kit
 - □ First aid kit (see page 20)
 - Demarcating objects such as Frisbees, tennis balls cut in half or silicone disks.
 - Traffic cones
 - □ Large sidewalk chalk (if your event is outside)
 - Score sheet
 - **C** Rodeo station descriptions for staff and volunteers

Suggested materials:

- Tables and chairs for registration, bicycle inspection, and helmet fitting
- Push broom for cleaning up the space before use
- Refreshments: jugs of water and/or energy bars
- Signs for different stations (if held simultaneously)
- Giveaways or prizes: incentives for participation and completion
- Volunteer packets: an overview of the event and station descriptions
- Extra helmets: in case students show up without helmets or with helmets that don't fit
- □ Kitchen spongers in different colors
- □ Large poster board with a picture of a car
- Poster with stop sign
- 2 Set up. If you are conducting a rodeo with a small group of children and doing one station at a time, you can set up stations shortly before the event or even as you go. If, however, this is a larger event, arrive at least one hour prior to the start of the rodeo to set up registration and mark out the best layout of the space. Some stations require more space than others, so take time to layout your best option before setting up. The following pages illustrate in detail how to set up and run each rodeo station!

NOTE

The safety rodeo should not occur if it is raining, or has rained earlier in the day. Wet roads make for slippery conditions. While youth may eventually be ready to ride on slippery pavement, the safety rodeo should occur in the best, safest bicycling weather.

🗱 TIP

If you conducted a rodeo as part of an ongoing bicycle education program, make sure to reflect on the experience with the youth.

- What did you already know before the rodeo started?
- What did you find to be the most challenging part of the rodeo?
- What are your looking forward to for the next sessions?

NOTE

If youth display a lot of difficulty with rodeo stations, they may not be ready for group riding. You may have to excuse them from the program and offer suggestions for improving skills at home.

Safety Rodeo Stations

Whether you are running your safety rodeo as a one-time event for youth or as part of a bicycle club, you have two options on how to organize the rodeo.

- 1 Run stations simultaneously: This option is necessary if there are more than 10 youth participating. Make sure there is at least one trained staff member or volunteer assigned to each station. Alternatively, you can assign volunteers to groups of youth who travel through each of the stations (this take a bit more training time). Make sure that there is a "rodeo captain" who is keeping track of time and group rotation.
- 2 Run stations one at a time: This option works well for a smaller group of 10 youth or less. If space and time permit, set up stations in advance, but keep the group together and start a new station after youth have ample practice at a station.

Before beginning a rodeo station, each student must pass through three checkpoints: Registration, Bicycle Inspection, and Helmet Check.

Registration

Have a sign-in sheet for parents and youth to check in. If a legal waiver is being used at the event, present the parents with the waiver at the registration station.

Bicycle Inspection

Like any other vehicle, a bicycle must be safe and functional for its driver. Youth participating in the bicycle rodeo and any ride programming must have a safe, properly fitting and functioning bicycle.

The ABC Quick Check

- Air full in both tires. Squeeze the tire as hard as you can with your thumb—it should not be able to make a dent.
- Brake pads hit rim not tire, lever cannot hit handle bar.
- Chain moves freely? Gears work?
- Quick release correctly closed on wheels and seat.
- Quick test ride in a designated area for final check.

NOTE

Parents may tend to buy bicycles for their children that are too large so they can "grow in" to these bikes. Unlike a pair of pants or a shirt, a bicycle that's too large for a child will be unsafe and discouraging to ride. Insist on properly fitting bicycles. Other things to check on all bikes:

- Wheels should spin freely
- Brakes must stop a spinning wheel without the brake levers touching the handlebars
- Handlebars should move freely left and right
- Pedals should spin
- · Cranks should turn and move the chain
- · Gears and shifting are in working order

Things that Shouldn't Move

- Headset: Hold the front wheel steady using your knees, then try to turn the handlebars. The handlebars should not move separately from the wheel. Squeeze the left/front brake lever, with your right hand placed over the headset, rock the front wheel forward and backward. You should not feel a knock or a loose headset.
- Seat: Seat post should be inserted, and the minimum insertion mark should not be visible. When hit from the side, the seat does not move.

IMPORTANT SAFETY NOTE: If a bicycle is deemed unsafe as a result of the safety check and it is not possible to fix the bike before the ride, it should not be ridden.

Bike Fit

Ensure the saddle is an appropriate height for the rider: when one pedal is at the bottom of its rotation, the rider's knee should have a very slight bend. When saddles are too low, legs will not have enough room, thus making pedaling more difficult





Helmet Fitting

The Pennsylvania Department of Transportation strongly recommends that all bicyclists wear an approved helmet whenever they ride. Many states and municipalities have helmet laws for children. In Philadelphia any child under the age of 13 is legally required to wear a helmet. We strongly encourage any youth bicycle organization or club to require helmet use by all participants.

See Melon Drop Lesson on page 11 for more on helmets.

- 1 Inspect the helmet. Make sure the child's helmet is in good condition and not damaged prior to fitting.
- 2 Fit the eyes. Position helmet correctly on the head; the helmet should be level from side to side and cover the forehead. It should rest about two fingers' width above the eyebrows. You should be able to see the front edge of your helmet with your eyes.
- **3** Fit the ears. The straps of the helmet should form a **V** right under the ears. Adjust the side straps. The side straps need to remain level across the forehead and come to a snug V under the ears.
- 4 Fit the mouth. The chinstrap of the helmet should fit with two fingers of space. Adjust the buckle or chinstrap. The chin strap must be comfortable, but also prevent the helmet from moving. A youth should be able to fit two fingers under their chin strap, no more, no fewer.
- 5 Test the fit of the helmet. Instruct the child to shake their head to test the security of the helmet. A properly fitting helmet should not fall off when shaking the head, even when the buckle is undone.
- 6 Do further helmet fitting. Re-evaluate the fit of the helmet after any adjustments are made. It may take awhile to properly fit a helmet, but the work is well worth the effort!



No



No



Yes

NOTE

Helmets must be replaced every five years or after a single crash!

On-bike Rodeo Stations and Skill Progression

The following rodeo stations are all "on bike" and are designed to teach youth new riding skills and also help youth gain confidence in their riding abilities.

• Each station is designated beginner level (blue), intermediate level (green) or advanced level (Burgundy).

■ Beginner Activities ■ Intermediate Activities ■ Advanced Activities

- The instructions for each station describe how to set up the course and the educational objective of the drill.
- For some skill stations, an additional advanced drill is listed. These drills are best used with a group of students who will be riding together, such as a bicycle club. They are not well suited for integrating into a one-day bike rodeo with beginners

Starting, Stopping, and Scanning

Set up: Set up discs or tennis balls to create a 3-foot wide by 40-ft long lane. Place cone(s) at the rider starting location. At the other end draw a large box, large enough for the entire length of a bicycle to fit into, indicating where riders will stop. Place a line of cones or chalk line to demarcate the return alley back to the start of the drill.



⇔ TIP

Make sure youth practice starting with their left and right feet in the starting "power pedal" position.







Starting and Stopping

Objective: Youth will be able to quickly and properly start and stop, both skills that are necessary for riding on the streets and in traffic.

Instructions: Instruct youth to start and stop using the following technique:

Straddle the bicycle with both feet on the ground; Place one of the pedals in the 10 o'clock position (also called "power pedal position") and push down on the pedal with your foot, propelling the bike forward. Once the bike is moving, your other foot finds the second pedal. Pedal to the end of the line, building speed as you pedal. Come a complete stop at the final cone by placing equal pressure on both hand brakes or by pedaling backward if you have pedal brakes (don't worry about stopping in the box at the this stage).

Stop in the Box:

Objective: Youth learn proper stopping control, including how long it takes their bicycle to stop where they want it.

Instructions: Once youth have mastered starting and stopping, challenge them to stop with their entire bicycle inside the box at the end of the course.

Looking Forward:

Objective: Youth will be able to keep their eyes forward while riding.

Instructions: The station leader stands at the end of the drill and holds up different number of fingers as the youth is riding. Participants ride toward instructor and call out how many fingers s/he is holding up as it constantly changes (can be done in loop circle as well).

Looking Backward:

Objective: Youth will be able to scan behind them while continuing to ride straight; this skill is used frequently when changing lanes and moving out of the bike lane to avoid a hazard like a parked car or pothole.

Instructions: The station leader stands at the beginning of the drill. As the rider reaches the midpoint of the drill the instructor yells, "look" and holds up a certain number of fingers. Upon hearing "look" participants briefly look back over one shoulder, calling out the number of fingers the instructor is holding up. After scanning, riders continue straight and stop in the box.

⇔ TIP

Instead of holding up fingers, which can be difficult for children to see, try holding up different colored kitchen sponges.

Additional Drill for Scanning Practice

Telephone:

Set Up: Conduct this drill in a large open space where you can ride in a straight line, uninterrupted by obstacles or traffic.

Objective: Youth will be able to scan behind them while riding in a single file line.

Instructions: Riding as a group in a line, the person in the back says "look" and holds up a number; the rider directly in front of the last rider looks back to see the number being held up, but does not say out loud. Now the second to last rider holds up the same number, and the pattern repeats until the number gets to the front of the line.

Balance and Control

Set up: Draw a narrow lane (3ft wide and at least 60ft long) with chalk, mark out with cones or use existing lines at the space; Place cones at the beginning and end of the drill; Place a line of cones or chalk line to demarcate the return alley back to the start of the drill.



Slow Race

Objective: Youth will be able to balance on their bicycles while traveling at a slow speed. This is applicable to on street or trail riding situations in which a cyclist is behind slow moving vehicles, other cyclists, or pedestrians on a trail.

Instructions: Youth ride from start to finish without putting their feet down; the station leader records participants' times and challenges them to beat their own time or another participant's time by going even slower the next round. For youth who struggle with this skill, instruct them to pedal slowly, slightly move their handlebars (and therefore the front wheel) from side to side, or lift off their seat to maintain balance.

Additional Drill for Balance and Control

Reverse Circle

Set up: Using cones or chalk, create boundaries for a large circle.

Objective: Youth will be able to slow down and change directions while riding in a group.

Instructions: ride in a circle with your group; when the leader calls out to reverse, turn in the other direction without hitting others, putting your foot down, or going out of bounds.

⇔ TIP

If the youth in your group display advanced balance and control skills, try mixing it up for an additional challenge.

- Place cones, discs, or other obstacles on the course and instruct participants to avoid the obstacle while remaining balanced at a slow speed.
- Pair up similarly skilled riders and have them compete for the slowest time.
- Pair up riders and instruct them to ride side-by-side, high fiving each other as many times as possible along the course.

Avoiding Hazards

Set up: Place one or two cones in the middle of a straight path. As riders master avoiding those obstacles, add more cones, approximately 3–4 feet apart along a 40 ft. space.



🗘 TIP

If your group has riders of varying skill levels, create two courses, one with cones spaced further apart and one with cones spaced closer together.

Avoiding hazards:

Objective: Youth will be able to maneuver their bicycles to avoid hazards, while staying within a 3ft lane.

Instructions: Ride in a straight line and avoid a hazard by slowing and steering around the obstacle; return to original straight course after maneuvering around hazard. As more cones appear, ride bike in between the cones, steering the bicycle, leaning, and using breaks as needed to avoid the obstacles.



Turning and Signaling

Set up: First set up a straight path of at least 30 ft. and mark the ending with a cone; next, turn 90 degrees to the right and set up another straight path of 30 ft. and mark that end with a cone; then, turn 90 degrees to your left and set up another straight path of 30 ft. marked with a cone at the end; finally, turn 90 degrees to the right and set up a 15 ft. straight path with a cone at the end. For each straight path, place a cone or write "signal" approximately 10 ft. before the ending cone, marking the pace that the rider should signal, before placing hands back on the handlebars to turn. If practicing box turns, draw a box on the ground with chalk at the second corner of the course.



Right turn/ Left turn *Use regular turn route

Objective: Youth will be able to signal the direction they are going to turn and make right and left turns with both hands on their handlebars. This is an essential skill for youth who plan to ride in the street; they must remain

predictable to vehicles and other cyclists by signaling their next move.

Instructions: First, the instructor reviews the hand signal with youth (see below). To begin the drill, ride in a straight line toward the first cone; signal right before the cone and place hands back on handlebars before making the turn; Ride toward the second cone and signal left before making the turn; Repeat for right turn and then come to a complete stop before traveling back to the beginning of the line.

Notes







Box Turn

Objective: Youth will be able to simulate a box turn by coming to a complete stop and rotating their bicycle the direction they wish to go, before proceeding forward. Box turns are the safest way to make a left turn on a multi-lane street; the technique avoids cutting across lanes of traffic, which not always possible or safe.

Instructions: After practicing basic right and left turns, try a box turn (green arrows on the diagram). Box turns are the safest way to make a left turn on a multi-lane road. Instead of remaining in the traffic lane to make a traditional left turn (blue arrows on diagram), proceed to the far right corner of the intersecting road and stop facing the direction you want to turn; once the instructor gives the green light (simulating a green light), proceed, straight through the "intersection."



Left Turn



Box Turn



Take the Lane

Taking the Lane

Double Parker Set up: Set up chalk lines or cones to resemble a 3-footwide bike lane blocked by a double-parked car. Have a volunteer hold a large poster board picture of a car. (If a large poster is unavailable, have a volunteer hold up colored sponges to signify a car). *Before practicing double parker, review hand signals with riders.

Double Parker Set up: Set up chalk lines or cones to resemble a 3-footwide bike lane blocked by a double-parked car. Have a volunteer hold a large poster board picture of a car. (If a large poster is unavailable, have a volunteer hold up colored sponges to signify a car). *Before practicing double parker, review hand signals with riders.



NOTE

This station is recommended for groups that need to build on-road riding skills. It may be too advanced for a one-day bicycle rodeo.

Double Parker

Objective: Youth will be able to combine the skills of scanning, balancing at a slow speed, signaling, and maneuvering around an obstacle. This drill prepares students for scenarios in which their travel lane is blocked.

Instructions: ride down the "bike lane" toward the "parked car"; slow down if necessary, scan over left shoulder, use left turn signal, and merge into traffic to avoid the obstacle. Merge back into bike lane after avoiding the parked car.





NOTE

The skills used in this drill are the same skills needed for a rider to "take the lane"—transition from the right lane or a bike lane into a lane of traffic in order to make a left turn. The only difference is that the ride remains in the lane of traffic instead of transitioning back to the right lane/ bike lane.

RESOURCES

For more information and inspiration about working with youth and bicycles, check out these resources:

Bicycle Coalition of Greater Philadelphia www.bicyclecoalition.org 1500 Walnut Street Philadelphia, PA 19102 Neighborhood Bike Works www.neighborhoodbikeworks.org 3939 Lancaster Avenue Philadelphia, PA 19104

- Alliance for Walking and Biking: http://www.bikewalkalliance.org
- Better Bike Share Partnership: http://betterbikeshare.org
- Community Bike Organizations Directory (Youth AND non-youth focused): http://www.bikecollectives.org/wiki/index.php?title=Community_Bicycle_Organizations
- League of American Bicyclists: <u>http://www.bikeleague.org</u>
 Can provide insurance for group rides and bicycle education certification
- National Center for Safe Routes to School: http://www.saferoutesinfo.org
- North American Bikeshare Association: http://nabsa.net
- People for Bikes: http://www.peopleforbikes.org
- Safe Routes Philly: http://www.saferoutesphilly.org
- Safe Routes to School National Partnership: http://saferoutespartnership.org
- Youth Bike Organizations Directory: http://www.ibike.org/encouragement/youth-directory.htm
- Youth Bike Summit: http://youthbikesummit.org

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