Middle School Table of Contents

Safe Routes to School
Pedestrian Safety Lessons - Middle School

The pedestrian and bicycle lessons for middle school are a continuation of lessons taught in elementary school. It is important to review basic pedestrian and bicycle safety concepts and skills since some students may not have had previous pedestrian and bicycle education. Starting with the most basic concepts ensures that all students have the same baseline knowledge and can progress to more complex skills when ready. Since pedestrian skills tend to be basic and taught at a young age, most middle school traffic safety programs focus on teaching bicycle safety. While instructors may choose to teach only bicycle safety, it is important to make sure students understand pedestrian safety skills since every child is a pedestrian, but not every child rides a bicycle. Instructors should review the pedestrian lessons to determine which are the most appropriate for their students.

The Pedestrian Safety Lessons introduce students to safe pedestrian behaviors and the concept of traffic. The goal is to teach students the necessary skills to be safe pedestrians whether walking to and from school, to the school bus stop, or other common situations. The lessons begin with skill building exercises and mock street simulations to teach basic pedestrian skills, then progressively applies these skills in various traffic situations. Some lessons end with students performing these skills in a real street situation to put into practice the skills they have learned.

Walking Safely Introduction

BACKGROUND INFORMATION

Whether walking with adult family members or friends, children must learn basic pedestrian safety to prevent injuries and prepare for a lifetime of safer walking. As young people become drivers, these lessons may help them be more aware of pedestrians as they navigate their community's streets. Preventing pedestrian injuries requires a combination of approaches: engineering strategies to improve the physical environment for walking, enforcement strategies to reduce vehicle speeds and increase driver yielding to pedestrians, and safety skills development and education for drivers and pedestrians (Pedestrian Safer Journey, 2017). While lessons covered later in the pedestrian unit will focus on specific pedestrian skills, this introductory lesson is designed to provide an overview and get students thinking about pedestrian safety. In the Pedestrian Safer Journey middle school video, students show off their pedestrian safety skills and build on what they know with a little more about how to cross busy streets.

* Pedestrian Safer Journey videos were developed by the U.S. Department of Transportation's Federal Highway Administration.

Objectives
Students will be able to identify safe places to walk. Students will be able to identify how to cross a street safely. Students will be able to navigate a crosswalk. Students will be able to discuss what each pedestrian signal means. Students will be able to identify some common distractions.

Videos
Pedestrian Safer Journey – Ages 10-14

PEDESTRIAN SAFER JOURNEY – AGES 10-14

http://www.pedbikeinfo.org/pedsaferjourney/mi_en.html

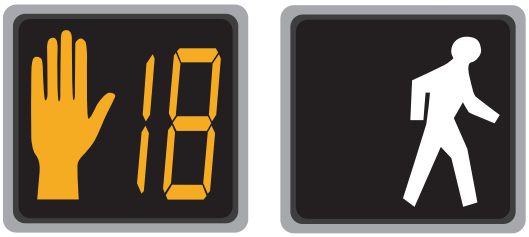
Youtube Videos: https://www.fdot.gov/projects/floridasrts/srts-videos/sixth-eighth-grade-videos

1. WHAT ARE SOME CHARACTERISTICS OF WALKING SAFELY?
   Walk on the sidewalk. If there is no sidewalk, walk on the right side of the street facing traffic. Do not push and shove when walking with others. Pay attention to your surroundings, and don't be distracted while walking.

2. TALKING WITH FRIENDS WHILE WALKING CAN SOMETIMES MAKE IT HARD TO PAY ATTENTION TO TRAFFIC. WHAT ELSE CAN BE A DISTRACTION WHILE WALKING?
Listening to music using ear buds, talking on a cell phone, and texting.

3. YOUR PARENT ASKED YOU TO WALK HOME FROM SCHOOL WITH YOUR YOUNGER BROTHER WHO IS SEVEN YEARS OLD. WHAT SHOULD YOU DO TO HELP KEEP HIM SAFE?
Tell your brother to stay close to you while walking. When crossing the street, take his hand so he waits to cross until it is safe.

4. YOU ARE WALKING, AND BEFORE YOU STEP OFF THE CURB, THE WALK SIGNAL CHANGES FROM THE WALKING PERSON TO THE HAND WITH A NUMBER… YOU SHOULD:
Stop and wait for the next walk signal



5. BEFORE CROSSING A STREET YOU KNOW YOU'RE SUPPOSED TO STOP AND LOOK FOR TRAFFIC, EVEN IF YOU ARE CROSSING AT A CROSSWALK. SINCE DRIVERS MAY NOT ALWAYS STOP FOR YOU, WHY IS IT IMPORTANT FOR YOU TO STOP AND MAKE SURE IT IS SAFE BEFORE CROSSING?
In most places, drivers are supposed to either stop for pedestrians in a crosswalk or slow down and let them pass, but sometimes drivers are distracted or may not see you. Even if they do see you, they may not have time to stop. Do not assume that drivers will stop for you.

6. YOU NEED TO CROSS A STREET AND THERE IS NO CORNER OR INTERSECTION NEARBY. THERE ARE VEHICLES PARKED ON THE STREET THAT MAKE IT HARD FOR YOU TO SEE TRAFFIC AND FOR DRIVERS TO SEE YOU. WHAT DO YOU?
Step to the edge of the parked vehicles and look left-look right-look left again before walking across the street. Continue looking left and right for vehicles as you cross. Before stepping in front of any parked vehicle, look to see if there is a driver inside or the engine is running. Make sure to communicate with the driver before attempting to cross the street.

7. YOU ARE WAITING TO CROSS AT AN INTERSECTION. WHY DO YOU NEED TO LOOK BEHIND YOU AND IN FRONT OF YOU AFTER LOOKING LEFT, RIGHT, LEFT AGAIN FOR TRAFFIC BEFORE STEPPING OFF THE CURB?
Because vehicles and bicyclists could be coming from four different directions at an intersection, you need to look in all of those directions.

8. WHEN IT IS DARK OR NEARLY DARK, WHAT SHOULD YOU WEAR TO HELP OTHERS (DRIVERS) SEE YOU?
Wearing bright clothes and/or reflective materials will make it easier for drivers to see you when it is dark or nearly dark.

Depending on the ability of your students, you may also consider showing the next Pedestrian Safer Journey video (ages 15-18). The video features two friends who reflect on a recent crash where a friend walking to a football game was hit by a fellow student. They talk about what might have gone wrong.

VIDEO: PEDESTRIAN SAFER JOURNEY – AGES 15-18

http://www.pedbikeinfo.org/pedsaferjourney/hs_en.html

Guided Discussion:

Below are some discussion questions suggested by Pedestrian Safer Journey (age 15-18 video). You may use these questions and add additional questions to get students to think more critically about pedestrian safety. The purpose of the discussion is to reinforce key messages from the video, including safe and unsafe pedestrian and driver behaviors, and to give students the opportunity to relate the information to their own lives.

1. WHAT MIGHT THE DRIVER (CONNOR) HAVE DONE DIFFERENTLY THAT MIGHT HAVE PREVENTED THE CRASH?
   Answers could include actions such as:
   - *Ignore his text message alert.*
   - *Pull over to a safe place to read the text message.*

2. WHAT ARE OTHER WAYS THAT DRIVERS GET DISTRACTED?
   Answers could include actions such as:
   - *Changing the radio station*
   - *Talking on the phone*
   - *Talking with car passengers*
   - *Eating*

3. WHAT MIGHT THE PEDESTRIAN (ANTHONY) HAVE DONE DIFFERENTLY THAT MIGHT HAVE AVOIDED THE CRASH?
   Answers could include actions such as:
   - *Wear bright or retro-reflective clothing*
   - *Stop and look for cars again before crossing the street*

4. IN THE VIDEO, THE TWO GIRLS TRY TO ANALYZE WHAT MIGHT HAVE CONTRIBUTED TO THE CRASH, AND THEY DISCUSS FEATURES OF THE WALKING ENVIRONMENT THAT MAY HAVE PLAYED A ROLE. IN GENERAL, WHAT ARE SOME FEATURES THAT HELP TO CREATE A SAFE WALKING ENVIRONMENT?
   Answers could include features such as:
   - *Sidewalks and other places to walk separated from motor vehicles*
   - *Lighting that makes it easier to see and be seen*
   - *Well-marked pedestrian crossings*

5. WHAT WERE SOME THINGS THAT ANTHONY DID RIGHT?
   Answers could include actions such as:
   - *Walked facing traffic*
   - *Didn't use ear buds to listen to music or play games*
   - *Looked both ways when crossing streets*

6. HAVE YOU EVER BEEN INVOLVED IN AN UNSAFE SITUATION AS A PEDESTRIAN, OR AS A DRIVER INTERACTING WITH A PEDESTRIAN? WHAT DID YOU DO? WHY DID YOU MAKE THOSE CHOICES? WHAT COULD OR WOULD YOU DO DIFFERENTLY IF YOU HAD A CHANCE TO DO IT AGAIN?

   Open discussion

7. EVERY STATE HAS A LAW REQUIRING VEHICLES TO EITHER YIELD TO OR STOP FOR PEDESTRIANS IN A CROSSWALK. WHAT IS YOUR STATE'S LAW?

   Answer varies by state. Consult the internet or state driver handbook to find the law.

8. HAVE YOU EVER BEEN IN A SITUATION WHERE A DRIVER DIDN'T YIELD TO YOU OR ANOTHER PEDESTRIAN? WHAT SHOULD PEDESTRIANS DO?

   Answers should include:

   - *While drivers are supposed to stop, pedestrians should not assume that they will do so.*

9. WHY DO YOU THINK SPEED LIMITS IN SCHOOL ZONES AND NEIGHBORHOODS ARE LOWER THAN ON BIGGER ROADS?

   Answers should include:

   - *Pedestrians are likely to be present.*
   - *As vehicle speeds increase, so does the chance of a pedestrian being killed if struck by a vehicle. If a pedestrian is hit by a car at 40 mph, there is an 85% chance of death. This percentage drops to 45% at 30 mph and 5% at 20 mph.*

In 2015, Safe Kids Worldwide conducted a study examining, among other things, the pedestrian safety behaviors of middle and high school students. Below are some key findings of the study and a summary. For the full report, please visit www.safekids.org

Alarming Dangers in School Zones

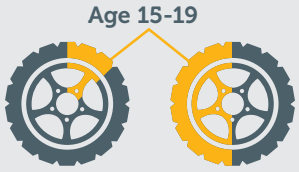
The Facts About Teen Pedestrians

5 /week

There are 5 teen pedestrian deaths every week in the United States.

13%

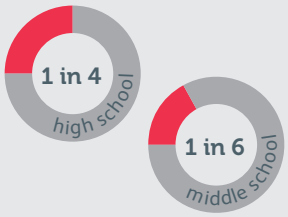
There has been a 13% increase in the pedestrian death rate for 12-19 year olds since 2013.



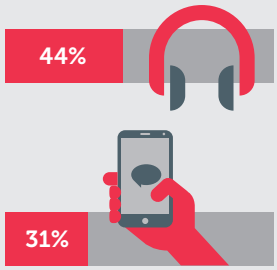
In 2015, while teens ages 15-19 made up 26 percent of all children ages 0-19 years, they made up about half of the pedestrian fatalities.

We observed 39,000 middle and high school students and 56,000 drivers in school zones in 2016.

Distracted walking is on the rise. We observed it in 1 in 4 high school students and 1 in 6 middle school students.

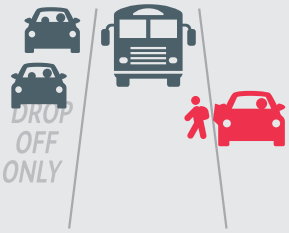


Distracted teens were most likely to be wearing headphones or texting.



Unsafe street crossing behavior was observed in about 80% of students.

Unsafe drop-off or pick-up behavior was observed in nearly 1 in 3 drivers.



What Communities Can Do to Protect Kids on the Move

Install proven interventions, like crosswalks, speed limits, visible signs and traffic lights.

Marked crosswalks were missing in 3 out of 10 observed crossings.

Set and enforce speed limits in school zones at no more than 20 mph.

Low speed limits (≤20 mph) were observed in only about 4 out of 10 school zones.

Educate parents and students about dangerous walking and driving habits (e.g., crossing mid-block, texting or talking on the phone.)

Implement and enforce school drop-off/pick-up policies.

For more information visit safekids.org

SAFE KIDS WORLDWIDE

Executive Summary

In 2015, 284 teens ages 12-19 were killed while walking; that's more than 5 pedestrian deaths every week. Overall, the pedestrian death rate in children ages 19 and under has decreased in the last 20 years. While this is good news, the rate for teens ages 12-19 has not dropped as quickly as that for younger children. Despite the historic 20-year downward trend, in the past two years there has actually been a 13 percent increase in the pedestrian death rate for 12-19 year olds,[1] presenting a renewed challenge for protecting kids on the move.

With the support of FedEx, Safe Kids Worldwide set out in spring 2016 to revisit the issue of pedestrian distraction in teens. We observed the street crossing behavior of more than 39,000 middle and high school students walking to and from school, with a focus on unsafe walking behaviors and distraction by mobile devices. We also made more than 56,000 driver observations during student drop-off/pick-up to assess for distraction and other unsafe driving behaviors. Schools were surveyed regarding policies addressing cell phone and headphone use and driver drop-off/pick-up procedures. Finally, we explored the impact of two simple, inexpensive, real-time ways to increase awareness of the risks and decrease unsafe behavior – road stencils for pedestrians and lawn signs for drivers.

We found that distraction and other forms of unsafe street crossing behavior are persistent risks for students traveling within school zones. Seventeen percent of middle school students and 27 percent of high school students observed were distracted by mobile devices. Distracted teens were wearing headphones (44 percent), texting (31 percent), talking on the phone (18 percent) or a combination of the three (7 percent). Assuming comparability of the 2016 results with our previous study from 2013 "Teens And Distraction: An In-Depth Look at Teens' Walking Behaviors," distracted walking increased from 1 in 5 to more than 1 in 4 among high school students and from 1 in 8 to 1 in 6 for middle school students.[2]

Beyond distraction, we observed that many school zones are not as safe as they could be and that there was a lot of other risky street crossing behavior observed. Only about 4 out of 10 school zones had speed limits of 20 miles per hour (mph) or less and marked crosswalks were missing in 3 out of 10 crossings. Students were observed crossing against the lights, not looking before crossing or not crossing at a designated crossing. In all, 83 percent of middle school students and 76 percent of high school students were observed engaging in at least one of these unsafe street crossing behaviors, suggesting the need to ensure safe crossing environments and continued education regarding the risks of unsafe pedestrian behavior in these age groups.

We found that distraction by mobile devices and other unsafe driving behaviors were also an issue among drivers during student drop-off/pick-up. Approximately 1 in 10 drivers were distracted by mobile devices while arriving or departing from the school and nearly 1 in 3 displayed other unsafe behaviors, such as double parking or stopping in the middle of a crosswalk while dropping off students. We found that school policies governing drop-off/pick-up make a difference in unsafe driving behavior, but only when policies were reported to be enforced. Lower speed limits also reduced the likelihood of unsafe driver behavior.

Finally, while further evaluation is needed, we found that both the road stencils and lawn signs encouraging “Heads Up Phones Down” reduced distracted behavior among pedestrians and drivers.

With child pedestrian deaths on the rise, Safe Kids is asking communities to take action to protect kids on the move.

Communities Can:

- Identify high risk school zones and aggressively pursue proven interventions, like crosswalks, appropriate speed limits, visible signs, crossing guards and traffic lights.
- Educate parents and students about dangerous walking and driving habits, e.g., crossing mid-block, texting or talking on the phone.
- Set and enforce speed limits in school zones at no more than 20 miles per hour.
- Implement and enforce school policies regarding drop-off and pick-up of students.

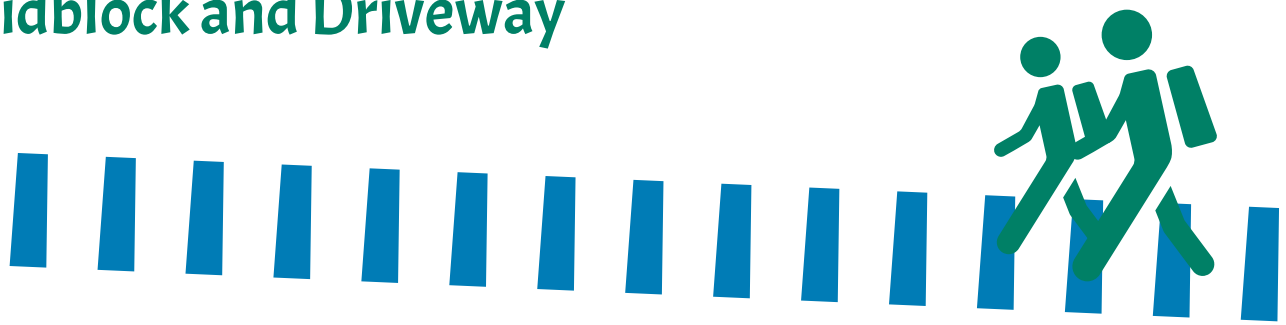
To take action, reach out to your school officials and local elected officials. For more information, visit safekids.org.

Safe Kids Worldwide has many resources available for pedestrian safety such as tip sheets and videos. Visit below for more information or their YouTube channel.

https://www.safekids.org/walkingsafelytips

https://www.youtube.com/user/safekidsusa

Midblock and Driveway



BACKGROUND INFORMATION

Dart-outs into traffic from driveways and at intersections are a leading cause of traffic crashes involving children. Once in motion (playing and running), children tend to stay in motion. This lesson introduces students to the basic components of crossing a street: stopping at an edge, searching left-right-left again before entering the road, and continuing to look while crossing.

Practicing stop and search techniques on a model street teaches children how to make safe decisions when they need to cross the street. Additionally, they need to practice stopping and searching to identify potential traffic before crossing streets when they may be distracted and/or retrieving an object. Remind them how easily you can be distracted from remembering to stop and search.

Objectives
Students will be able to identify edges. Students will be able to stop at the edge and perform the Search: Look Left-Look Right-Look Left again. Students will be able to apply (what they have learned thus far) stopping at an edge, perform the Search: Look Left-Look Right-Look Left again, in order to navigate a model street crossing.

Videos
Driveway, Driveway Review, Driveway with Visual Barrier, Driveway with Visual Barrier Review.

VIDEO: DRIVEWAY

Guided Discussion:

1. WHERE DO YOU THINK THEY MIGHT BE GOING?
2. WHAT DID YOU SEE THEM DO?
   Stop and look.
3. WHERE DID THEY STAND TO LOOK?
   At the edge of the street or roadway.
4. WHAT WERE THEY LOOKING FOR?
   Cars, trucks, etc.
5. DID THEY SEE ANY CARS?
   No moving cars.

6. CARS ARE A TYPE OF VEHICLE. CAN YOU NAME SOME DIFFERENT TYPES OF VEHICLES?
Truck, bus, bicycle, motorhome, motorcycle, etc.

- *Cars and other vehicles traveling on the roadway are called **traffic**.*
- *When **vehicles** are moving on the roadway they are part of **traffic**.*
- *If you are moving on the roadway, you are part of **traffic**.*
- *People walking on the sidewalk or in the roadway are called **pedestrians**.*

7. WHAT DID THEY DO BEFORE THEY BECAME PART OF TRAFFIC?
They stopped at the edge and looked for traffic.

VIDEO: DRIVEWAY REVIEW

Guided Discussion:

1. WHAT DID THEY DO BEFORE HE BECAME PART OF TRAFFIC?
*They stopped at the **edge** and looked for vehicles.*

2. WHY DO YOU THINK THEY LOOKED LEFT FIRST?
The closest lane of traffic is on the left.

3. WHY DO YOU THINK THEY LOOKED LEFT AGAIN BEFORE CROSSING?
Always check the closest lane of traffic just before entering the street or roadway.

4. WHAT DID THEY CONTINUE TO DO AS THEY CROSSED THE STREET?
They kept looking.

5. IS A CAR IN A DRIVEWAY OR ON THE SIDE OF THE STREET PART OF TRAFFIC?
*No, however, parked vehicles can become part of traffic at any moment! Vehicle drivers may have a difficult time seeing **pedestrians**, so it is important to be aware of your surroundings and communicate with drivers*

6. CLARIFY THE TERMS:
Pedestrian, Edge, Vehicle, Traffic, Search: Look Left-Look Right-Look Left again.

VIDEO: DRIVEWAY WITH VISUAL BARRIER

Guided Discussion:

1. WHERE DO YOU THINK THEY MIGHT BE GOING?

2. WHAT DID YOU SEE THEM DO?
They stopped at the edge of a parked vehicle.

3. WHERE DID THEY STAND TO LOOK?
   *At the edge of a parked vehicle, the **visual barrier**.*
   They moved to a new place, the edge of the roadway and stopped to look for traffic.
   - *Cars and other vehicles traveling on the roadway are called **traffic**.*
   - *When **vehicles** are moving on the roadway they are part of **traffic**.*
   - *If you are moving on the roadway, you are part of **traffic**.*
   - *People walking on the sidewalk or in the roadway are called **pedestrians**.*

4. DID THEY SEE ANY TRAFFIC?
   No

5. WHAT DID THEY CONTINUE TO DO AS THEY CROSSED THE STREET?
   They kept looking for traffic.

VIDEO: DRIVEWAY WITH VISUAL BARRIER REVIEW

Guided Discussion:

1. WHERE DID THEY STOP FIRST?
   They stopped at the roadway edge.

2. WHAT DID THEY DO NEXT?
   They moved to the edge of the parked vehicle and stopped to look for traffic. They looked left. They looked right. They looked left.

3. WHY DO YOU THINK THEY LOOKED LEFT AGAIN BEFORE WALKING ACROSS THE STREET?
   Always check the closest lane of traffic just before entering the street.

4. DID THEY SEE ANY TRAFFIC?
   No

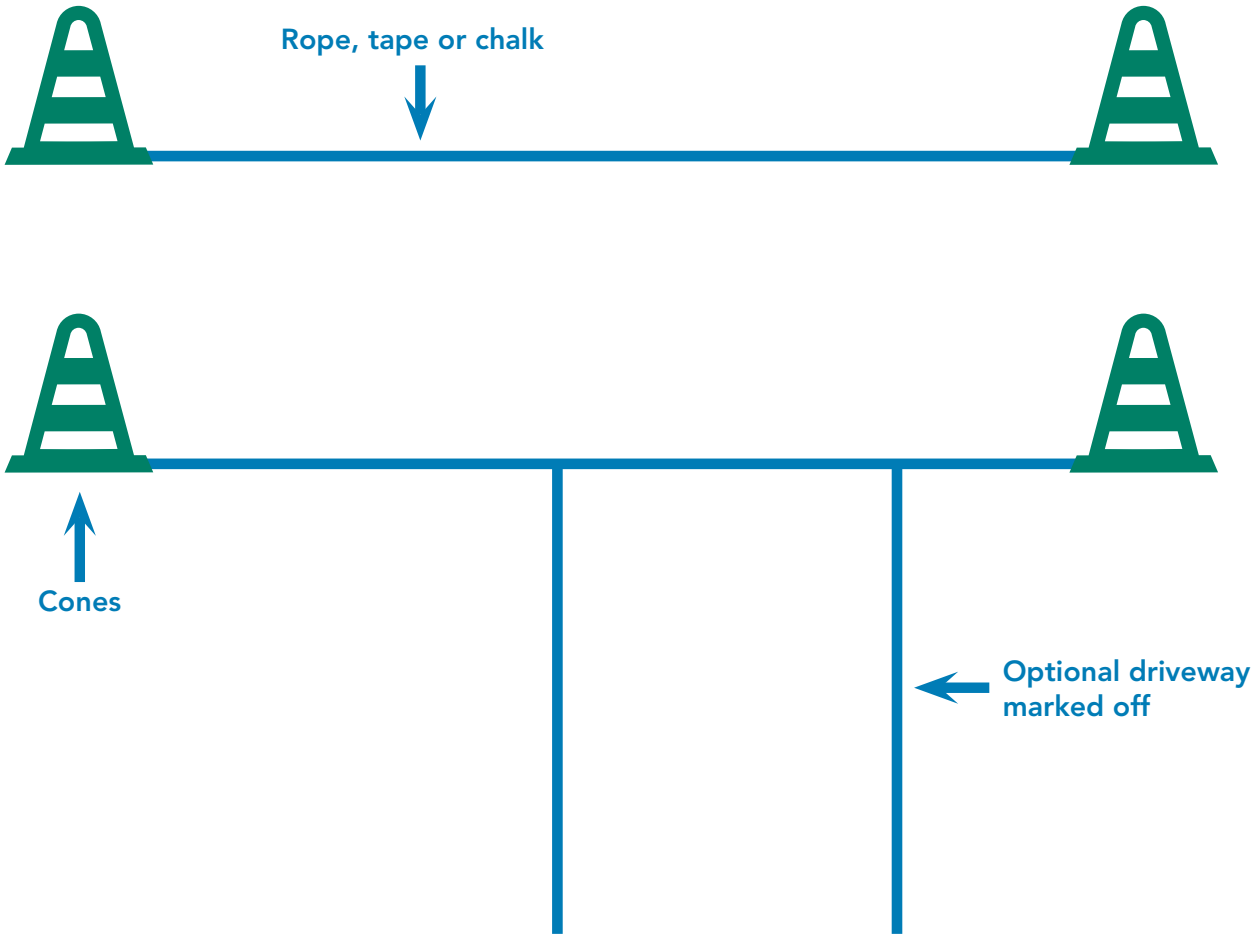
5. WHAT DID THEY CONTINUE TO DO AS THEY CROSSED THE STREET?
   They kept looking for traffic.

6. CLARIFY THE TERMS:
   Traffic, pedestrian, and visual barrier

MODEL STREET CROSSING

Material/Equipment: Ropes, cones, tape, chalk, or chalk spray to mark off mock road.

Set-up: A large open space such as a field, gymnasium, basketball court, etc. With ropes, chalk, chalk spray, etc., mark off a mock road on blacktop or grass area the same width as roads around your school or neighborhood.



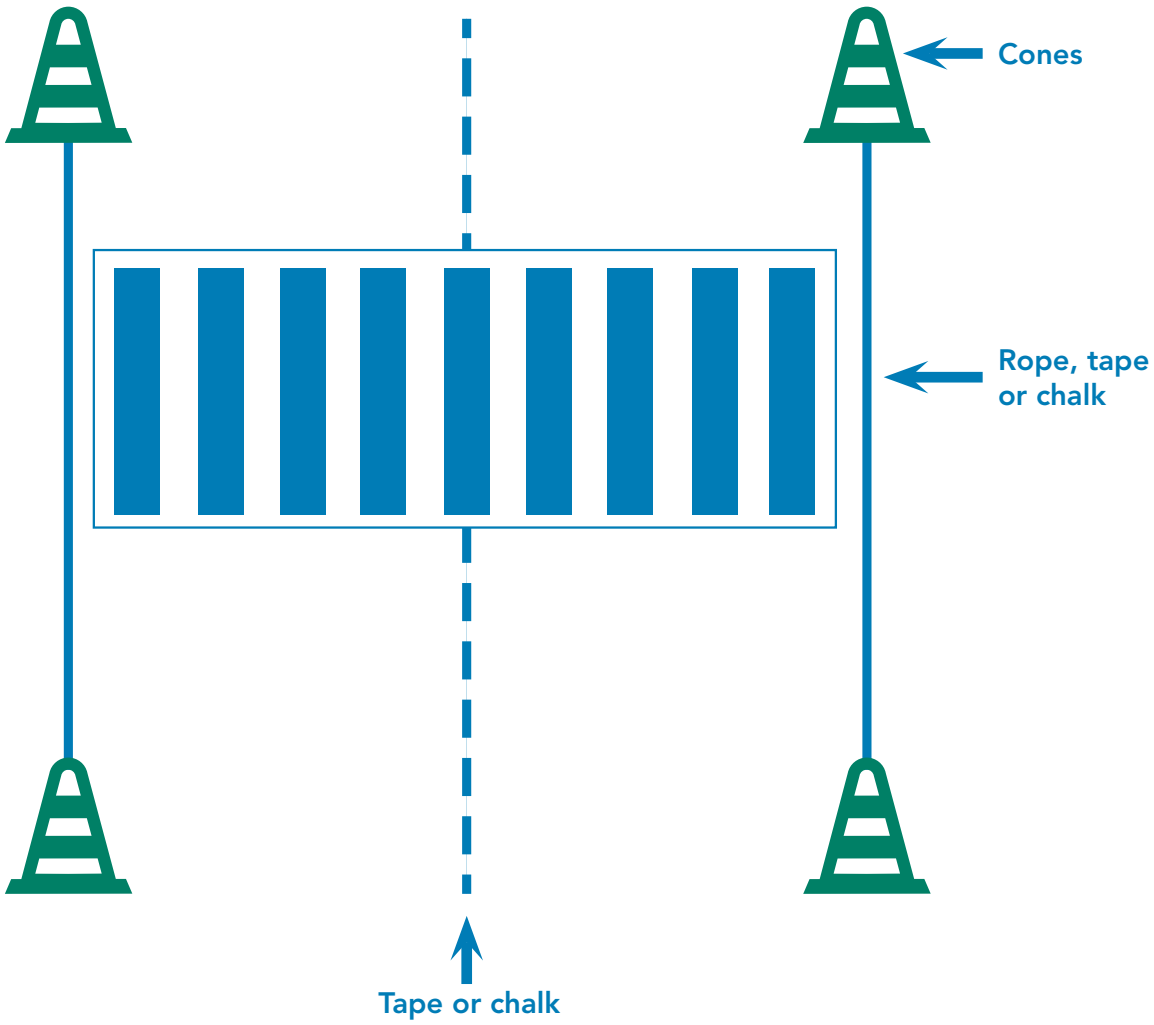
Instructor: While this is a basic skill that most middle-school aged students should already understand, it is important to have them demonstrate a model street crossing. Assemble students near the edge of the road. Explain that we don't want to stop "on" the edge of the road, or right at the edge. Instead, we want to be about one-step away from the edge while we do our search. This allows a buffer space between you and traffic. Ask three or four volunteers to cross the road together. Demonstration takes place and the volunteers stop and stand on the other side. Ask the students who are observing; what did you see (As earlier with the videos.)? Students share "Stop at the edge, Look left-Look right-Look left again. If no cars are coming, walk and keep looking." Ask for four more volunteers. Repeat until all students have crossed the mock road. Alternatively, you could have the class line up near the edge of the road and ask students to perform their own search and cross when ready.

Note: Make sure the students understand it is not a race; they are not supposed to run across the street.

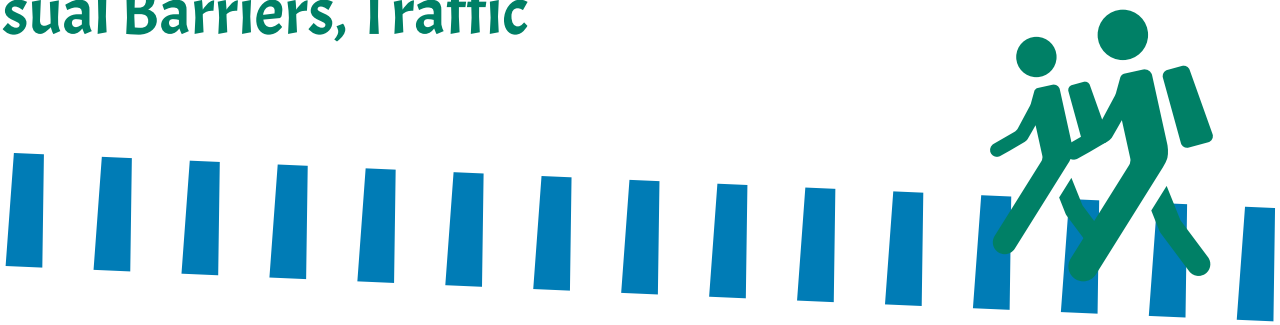
Note about distractions: Remind students the importance of paying attention while walking. Ask them what types of things could distract them while walking (phones, music, games, talking with others, etc.). Ask them why it is important to pay attention and be aware of their surroundings while walking (Distractions take their attention away from what is happening, so they are not able to hear and see potential dangers). Even if you are crossing at an intersection, or in a crosswalk, it is important to always be aware of your surroundings and not assume drivers will yield to you.

Additional set-up using a crosswalk

Setup includes crosswalk rug, something to create sidewalks (rope, tape, chalk, chalk spray, etc.) and optional dashed lines for road (tape, chalk, chalk spray, etc.). For this setup, you may add sidewalks, a center line, and crosswalk.



Visual Barriers, Traffic



BACKGROUND INFORMATION

This lesson continues to teach how to properly cross the street by stopping at the edge, searching left-right-left again, and recognizing visual barriers and what to do when a visual barrier is present, but it also adds the component of traffic.

Note: Sun Glare

Visual barriers such as trees, shrubs, and parked cars are not the only reasons preventing drivers from seeing pedestrians, bicyclists, and other road users. Sun glare, caused by the sun being low on the horizon in the direction of vehicle travel, is responsible for a number of crashes. Many sun glare accidents happen early in the morning or late afternoon when the sun is low on the horizon. Additionally, the switch from daylight-saving time to standard time puts drivers on the road when the sun is low on the horizon. Unfortunately, these times coincide with the morning commute and school travel, which puts pedestrians and bicyclists at higher risk. Pedestrians should always check traffic prior to entering the roadway, and never assume a driver sees them.

Prerequisites
Students must know how to properly stop at the edge and search left-right-left again before crossing a street. See *Midblock and Driveway* Lesson.

Objectives
Students will be able to identify edges, stop at the edge, and perform the Search: Look Left-Look Right-Look Left again, recognize visual barriers that may be hazardous to pedestrians and bicyclists, and perform a model street crossing with visual barriers and traffic.

Videos
Driveway with Traffic; Driveway with Traffic Review; Driveway with Visual Barrier, Traffic; Driveway with Visual Barrier, Traffic Review.

VIDEO: DRIVEWAY WITH TRAFFIC

Guided Discussion:

1. WHERE DO YOU THINK THEY MIGHT BE GOING?

2. WHAT DID YOU SEE THEM DO?
   Moved toward the road and stopped because they saw traffic. Motorcycles, cars and other vehicles moving in the roadway are traffic.

3. WHAT DID THEY DO WHEN THEY SAW TRAFFIC?
   They stepped back.

4. WHY DO YOU THINK THEY DID THAT?
   Allow any ideas. The proper answer will come out in the review.

5. WHAT DID THEY DO AFTER THE TRAFFIC PASSED?
   Moved to the edge of the road, stopped, and looked for traffic. They looked left. They looked right. They looked left.

6. DID THEY SEE ANY TRAFFIC?
   No.

7. WHAT DID THEY DO BEFORE THEY MOVED INTO THE ROADWAY AND BECAME A PART OF TRAFFIC?
   They looked for traffic.

8. WHAT DID THEY CONTINUE TO DO AS THEY MOVED INTO THE STREET?
   They kept looking.

VIDEO: DRIVEWAY WITH TRAFFIC REVIEW

Guided Discussion:

1. WHAT DID THEY DO BEFORE THEY BECAME PART OF TRAFFIC?
   They stopped at the edge of the road and looked for traffic.

2. DID THEY SEE ANY TRAFFIC?
   Yes.

3. WHAT DID THEY DO WHEN THEY SAW THE TRAFFIC?
   They stepped back.

4. WHY DO YOU THINK THEY DID THAT?
   To communicate with the driver that they were not going to cross.

5. WHAT DID THEY DO AFTER THE TRAFFIC PASSED?
   Moved to the edge of the road, stopped, and looked for traffic. They looked left. They looked right. They looked left.

6. WHY DO YOU THINK THEY LOOKED LEFT ONE MORE TIME BEFORE ENTERING THE STREET?
   Always check the closest lane of traffic just before entering the street.

7. WHAT DID THEY CONTINUE TO DO AS THEY CROSSED THE STREET?
   They kept looking.

8. IS A CAR IN A DRIVEWAY OR ON THE SIDE OF THE STREET PART OF TRAFFIC?
   *No, however, parked vehicles can become part of traffic at any moment! Vehicle drivers may have a difficult time seeing **pedestrians**, so it is important to be aware of your surroundings and communicate with drivers*

VIDEO: DRIVEWAY WITH VISUAL BARRIER, TRAFFIC

Guided Discussion:

1. WHERE DO YOU THINK THEY MIGHT BE GOING?

2. WHAT DID YOU SEE THEM DO?
   Stop, look.

3. WHERE DID THEY STAND TO LOOK?
   At the edge.

4. WHAT DID THEY DO NEXT?
   They moved to a new place to look for moving cars.
   Cars moving in the roadway are called traffic.

5. DID THEY SEE ANY TRAFFIC?
   Yes.

6. WHAT DID THEY DO WHEN THEY SAW TRAFFIC?
   They stepped back to the edge of the roadway and waited for it to pass.

7. WHAT DID THEY DO NEXT?
   They moved to the edge of the visual barrier where they could see clearly, to look for traffic.
   They looked left. They looked right. They looked left.

8. WHAT DID THEY DO WHILE THEY CROSSED THE STREET?
   They kept looking for traffic.

VIDEO: DRIVEWAY WITH VISUAL BARRIER, TRAFFIC REVIEW

Guided Discussion:

1. WHERE DID THEY STOP FIRST?
   They stopped at the edge.

2. WHAT DID THEY DO THERE?
   They looked for traffic. They looked left. They looked right. They looked left.

3. WHAT DID THEY DO NEXT?
They moved to a new place to look for moving cars.
Cars moving in the roadway are called traffic.

4. DID THEY SEE ANY TRAFFIC?
Yes.

5. WHAT DID THEY DO WHEN THEY SAW TRAFFIC?
They stepped back to the edge of the roadway and <u>waited</u> for it to pass.

6. WHAT DID THEY DO NEXT?
*They moved to a new edge, the edge of the **visual barrier** to look for traffic.*

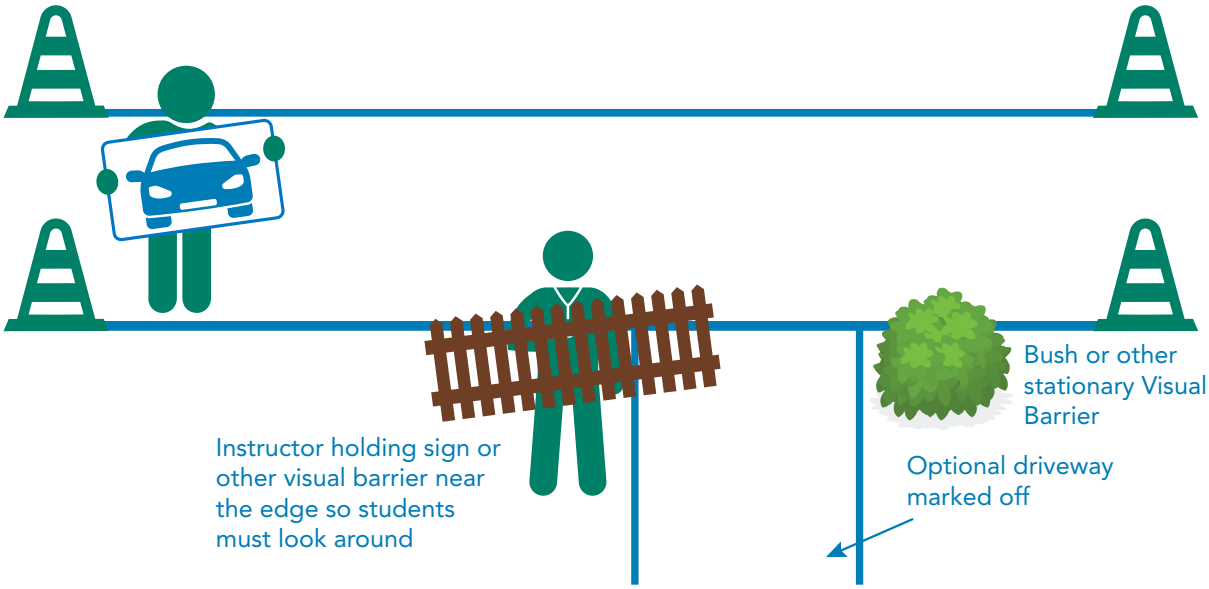
7. WHY DO YOU THINK THEY LOOKED LEFT ONCE AGAIN BEFORE CROSSING?
Always check the closest lane of traffic just before entering the street.

MODEL STREET CROSSING WITH VISUAL BARRIER, TRAFFIC

This activity is the same set-up as the *Model Street Crossing* with the addition of visual barriers and traffic.

Material/Equipment: Ropes, cones, tape, chalk, or chalk spray to mark off mock road and make centerline. Objects to create visual barriers such as signs of a fence, bush, parked vehicle (can be purchased or made by students), or any other item that will obstruct the students' view.

Set-up: A large open space such as a field, gymnasium, basketball court, etc. With ropes, chalk, chalk spray, etc., mark off a mock road on blacktop or grass area the same width as roads around your school or neighborhood. Create visual barriers by placing objects and/or signs near the edge of the road that students must look around. The instructor may also hold a sign near the edge of the road to create a visual barrier.

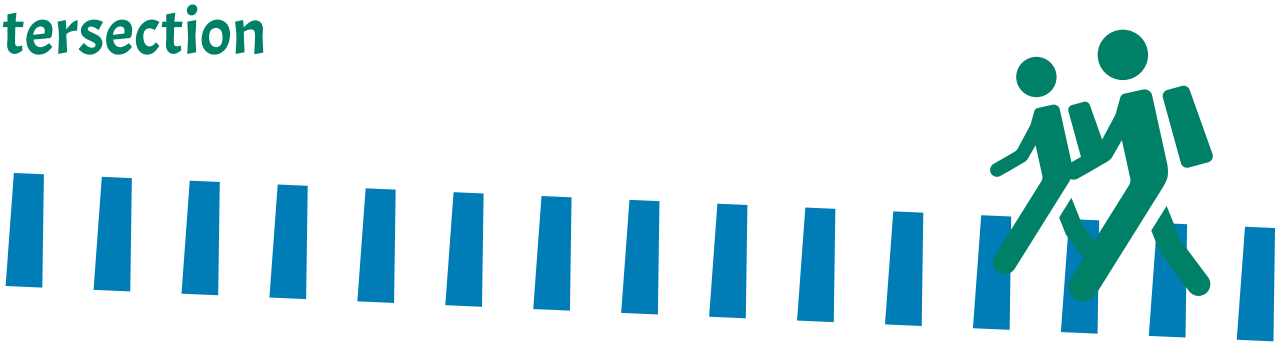


Instructor: Assemble students near the edge of the road. Ask three or four volunteers to cross the street together. Remind students that when there is a visual barrier or something obstructing their view, they must look around the visual barrier so they can do their search before crossing. Students may only need to lean out to see around the visual barrier, but sometimes they may need to step past the first edge (e.g., edge of street) to see around an object like a parked car in the street. If using a parked car or mock car, it is important to discuss that the students must make sure no one is in the car before crossing, or to cross at a different location. Demonstration takes place and the volunteers stop and stand on the other side. Ask the students who are observing; what did you see? (As earlier with the videos.) Students share: Stop at the edge; Look around the Visual Barrier; then Look Left-Right-Left again. If no cars are coming, walk and keep looking. Ask for four more volunteers. Repeat until all students have crossed the mock road.

Addition of "Traffic": Ask Volunteers to move up and down the lanes of the street to simulate vehicles. Volunteers can use vehicle signs or props to make more realistic. Students can now practice the Step Back (three steps) with Visual Barriers if a car is present.

📝***Note:*** When they look Left- Right- Left again, make sure they identify what they are looking for.

Intersection



BACKGROUND INFORMATION

Children have difficulty understanding complicated traffic situations due to lack of experience; therefore, it is especially important for children to be taught the similarities and differences between crossing a street midblock and crossing a street at an intersection. All possible intersection scenarios should be explored with students. The messages conveyed by traffic signs and signals must also be taught to students. Traffic signs, signals, and rules were made up by adults; children often interpret these things differently. For children to learn how to cross an intersection safely, they must also understand the traffic signs, signals, and rules of the road that regulate intersections. The Model Intersection Crossing Activity asks students to cross the road, similar to previous activities, but does so in an intersection setup.

Note: A crosswalk at an intersection is defined as the extension of the sidewalk or the shoulder across the intersection, regardless of whether it is marked or not. Many crosswalks are not marked (no painted lines), so keep this in mind when teaching and watching lesson videos.

VIDEO: INTERSECTION, WALK

Guided Discussion:

1. WHERE DO YOU THINK SHE MIGHT BE GOING?
2. WHAT DID YOU SEE HER DO?
   Stop at the edge of the street to look for traffic.
3. WHERE DID SHE LOOK?
   Allow any answers. The proper answer will come out in the review. The discovery approach is best for this concept.
4. DID SHE SEE ANY TRAFFIC?
   Yes

Prerequisites
Students must know how to properly stop at the edge, search left-right-left again, and to step back when traffic is near. See *Midblock and Driveway and* Visual Barriers, Traffic Lessons.

Objectives
Students will be able to apply what they have previously learned (stopping at the edge and looking left-right-left again) to an intersection scenario, scan forward and behind them for traffic at an intersection, and perform a model intersection crossing with and without traffic.

Videos
Intersection, Walk; Intersection, Walk Review; Intersection, Traffic; and Intersection, Traffic Review

5. WHAT DID SHE DO AS SHE WALKED ACROSS THE ROADWAY?
She kept looking.

VIDEO: INTERSECTION, WALK REVIEW

Guided Discussion:

1. WHEN YOU ARE IN THE ROADWAY YOU ARE PART OF TRAFFIC. WHAT DID SHE DO BEFORE SHE BECAME PART OF TRAFFIC?
*Stop at the edge of the street to look for **traffic**.*

2. WHERE DID SHE LOOK?
She looked left, looked right, looked left. She looked back.

3. WHY DO YOU THINK SHE LOOKED BACK?
*There was a road there. Vehicles can come from behind us when we are near an **intersection**.*

4. WHAT IS AN INTERSECTION?
Any place where roads cross or join other roads.

5. IS A CAR IN A DRIVEWAY OR ON THE SIDE OF THE STREET PART OF TRAFFIC?
*No, however, parked vehicles can become part of traffic at any moment! Vehicle drivers may have a difficult time seeing **pedestrians**, so it is important to be aware of your surroundings and communicate with drivers*

6. WHAT DID SHE CONTINUE TO DO AS SHE CROSSED THE STREET?
She kept looking left, right, left and back.

7. CLARIFY THE TERMS:
Pedestrian, intersection, and traffic

VIDEO: INTERSECTION, TRAFFIC

Guided Discussion:

1. WHERE DO YOU THINK SHE MIGHT BE GOING?

2. WHAT DID YOU SEE HER DO?
Stop at the edge of the street to look for traffic.

3. WHAT DID SHE DO WHEN SHE SAW TRAFFIC?
She stepped back and waited for the car to pass.

4. WHY DO YOU THINK SHE STEPPED BACK?
She wanted to communicate with the driver that she was not going to cross.

5. WHAT DID SHE DO AFTER THE TRAFFIC PASSED?
Walked to the edge, stopped and looked for traffic.

6. WHERE DID SHE LOOK?
Allow any answers. The proper answer will come out in the review. The discovery approach is best for this concept.

7. WHAT DID SHE DO AS SHE WALKED ACROSS THE ROADWAY?
She kept looking.

VIDEO: INTERSECTION, TRAFFIC REVIEW

Guided Discussion:

1. WHEN YOU ARE IN THE ROADWAY YOU ARE PART OF TRAFFIC. WHAT DID SHE DO BEFORE SHE BECAME PART OF TRAFFIC?
*Stopped at the edge of the street to look for **traffic**.*

2. WHERE DID SHE LOOK?
She looked left. She looked right. She looked left. She looked back.

3. WHY DO YOU THINK SHE LOOKED BACK?
*There was a road there. Vehicles can come from behind us when we are near an **intersection**.*

4. WHAT IS AN INTERSECTION?
Any place where roads cross or join other roads.

5. WHAT DID SHE DO WHEN SHE SAW TRAFFIC?
She stepped back and waited for the car to pass.

6. WHY DO YOU THINK SHE STEPPED BACK?
*To **communicate** to the driver that she was not going to cross.*

7. WHAT DID SHE DO AFTER THE TRAFFIC PASSED?
Walked to the edge, stopped and looked for traffic.
She looked left. She looked right. She looked left. She looked back.

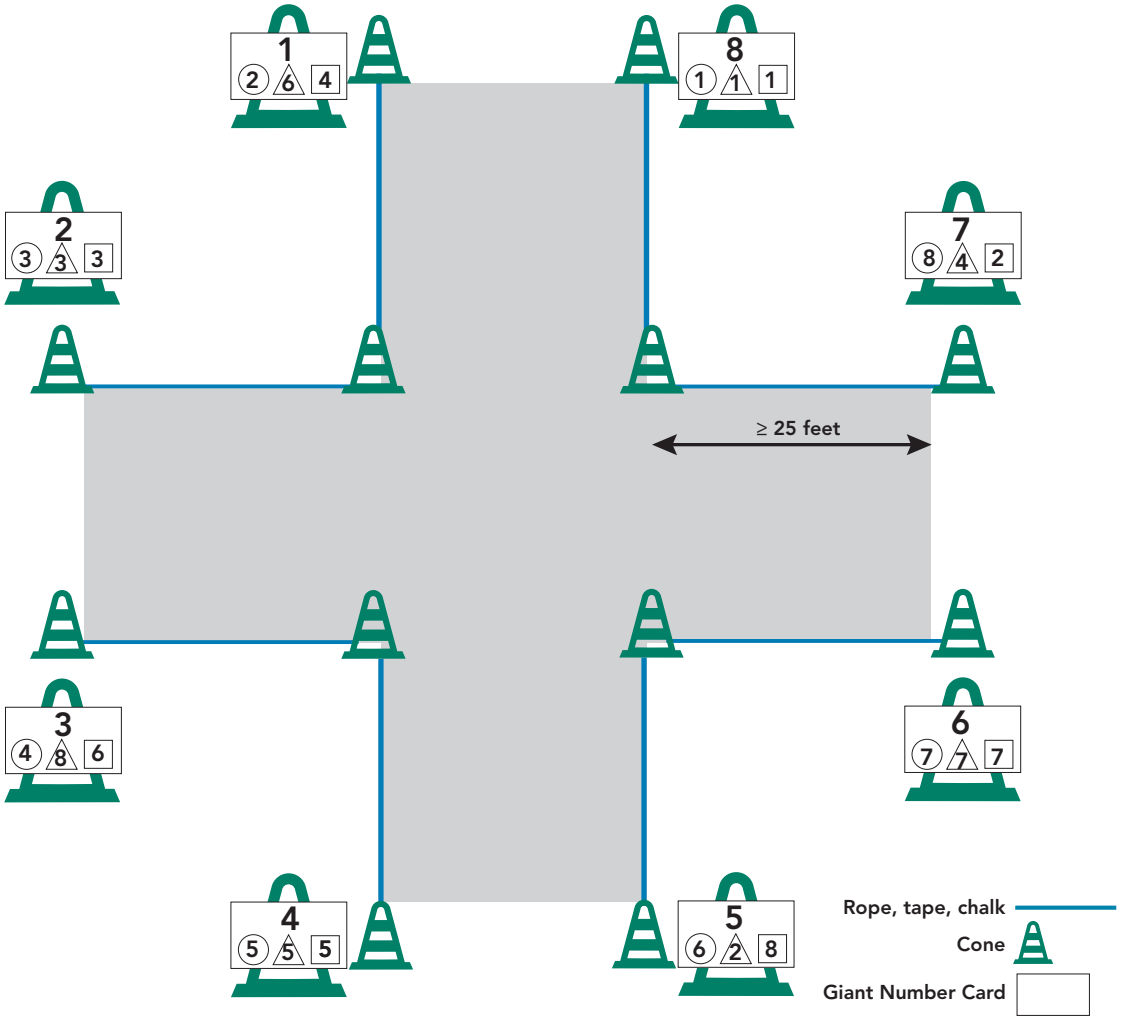
8. WHAT DID SHE DO AS SHE WALKED ACROSS THE ROADWAY?
She kept looking. Left, Right, Left, Back.

9. CLARIFY THE TERMS:
Pedestrian, intersection, communicate, traffic

MODEL INTERSECTION CROSSING

Material/Equipment: Eight giant number cards (GNC) or other items to identify, 12 cones, and ropes/chalk/etc. to create lines for intersection. When adding the visual barrier component, use objects used when doing the previous visual barrier activity (signs of bush, fence, etc.; blanket, large piece of cardboard, etc.). When adding the traffic component, use vehicle signs (car, truck, bus, etc.).

Set-up: Outside on the playground, field, or other large area, arrange cones and rope (at least 50 ft. each) to simulate street corners. Place eight Giant Number Cards (GNC) around the perimeter in a counter-clockwise direction. See Diagram below.



Play a low organized, high movement activity for a few minutes to get the heart and lungs working and blood flowing.

Instructor: Explain to the class that the rope or lines made are edges (like curbs) that make up an intersection. It is also where they need to stop. Demonstrate the stop and search pattern for intersections with your back toward the class: a) Stop at the edge; b) Look left-look right-look left again, and search behind and forward; c) Cross when clear; and d) Keep looking while crossing. As in previous activities, have the students say everything aloud. Assign or have the students choose partners.

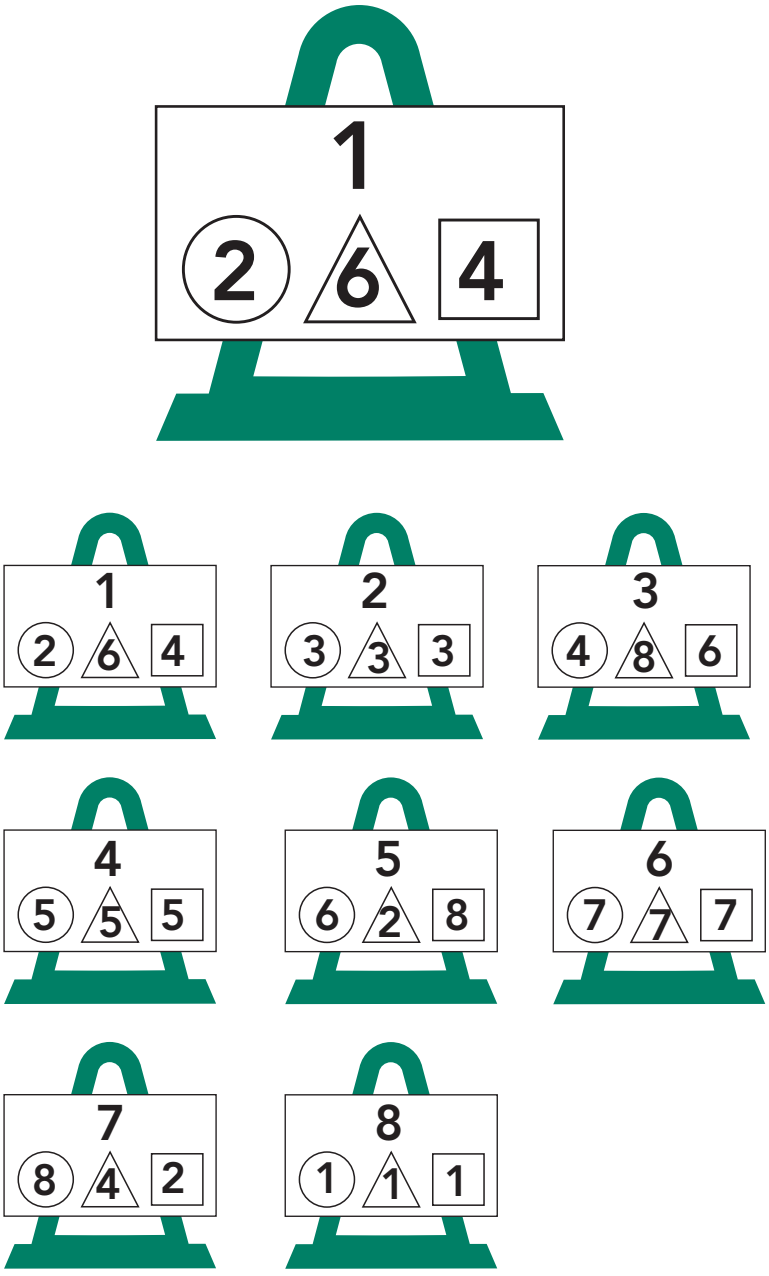
Divide the students into eight groups and send each group to a GNC. Once each group is at their GNC, instruct the students to look at the GNC where they will see three shapes (each with a number inside)

that correspond to a destination. Tell the students that you will hold up a shape, which will guide them to their next destination. For example, using the GNC 1 example below, if you held up a circle, the students at GNC 1 would walk to GNC 2. Once at GNC 2, they would look at the circle, which would instruct them to go to GNC 3, and so on. You may choose to have the students follow one shape for the entire activity (e.g., making loop using the circle 1 to 2, 2 to 3, 3 to 4, etc.), or you may change the shape throughout the activity. To add additional physical activity, you may wish to use activity cards at each destination (e.g., jumping jacks, pushups, sit-ups).

CIRCLE
At GNC #1 the circle reads "2"
At GNC #2 the circle reads "3"
At GNC #3 the circle reads "4"
At GNC #4 the circle reads "5"
At GNC #5 the circle reads "6"
At GNC #6 the circle reads "7"
At GNC #7 the circle reads "8"
At GNC #8 the circle reads "1"

SQUARE
At GNC #1 the square reads "4"
At GNC #2 the square reads "3"
At GNC #3 the square reads "6"
At GNC #4 the square reads "5"
At GNC #5 the square reads "8"
At GNC #6 the square reads "7"
At GNC #7 the square reads "2"
At GNC #8 the square reads "1"

TRIANGLE
At GNC #1 the triangle reads "6"
At GNC #2 the triangle reads "3"
At GNC #3 the triangle reads "8"
At GNC #4 the triangle reads "5"
At GNC #5 the triangle reads "2"
At GNC #6 the triangle reads "7"
At GNC #7 the triangle reads "4"
At GNC #8 the triangle reads "1"



DISTRACTED PEDESTRIAN ACTIVITY

Distractions while walking, bicycling, and driving a motor vehicle are a growing concern. Many distractions have always been present such as talking, eating or drinking, reading, or listening to music, but as technology has advanced, the number of potential distractions increased. It is necessary to teach children safe pedestrian behaviors, but we must also remind them not to be distracted so they can practice those behaviors. Once students have learned how to properly cross the street or use an intersection, you may add the element of distraction to demonstrate how their attention can be compromised.

Instructor: Using the *Model Intersection* set-up, assign or let students get in groups of two or three (depending on how many "distractors" you want to add). One student will be the "distracted pedestrian" and their partner(s) will be the "distractor." Give each "distractor" partner a handout with items to distract the "distracted pedestrian" in their group (see examples below). Instruct the "distracted pedestrians" and their group to go through the *Model Intersection* activity as before, except they will face distractions this time.

One student partner will instruct the "distracted pedestrian" to act out the following tasks as they walk (but not while crossing the street). Once the "distracted pedestrian" is done with each task, the partner waits a few seconds and gives another task. The tasks can be given in order, or asked randomly.

Handout: Potentially Distracting Tasks (You may use some of the tasks below or make your own):

Take a piece of gum out of the pack and chew it.

Put on chap stick.

Change the song on your music player (iPod, mp3 player, phone, etc.).

Type a text message to a friend.

Talk to your friend on the phone.

Take a drink from your water bottle.

Take a bite from an apple.

Dribble/bounce a basketball.

If adding a second "distractor partner," they could ask questions

Handout: Potentially Distracting Questions (You may use some of the questions below or make your own):

What day is today?

What is your favorite color?

What is your full name?

How many fingers am I holding up?

What is the capital of Florida?

What is our school mascot?

Depending on the ability of your students, you can also use a handout with age-appropriate math problems. For example:

2 x 3 = **6**	5 x 3 = **15**	10 x 4 = **40**	1 x 2 = **2**	3 x 7 = **21**
5 x 10 = **50**	9 x 5 = **45**	10 x 10 = **100**	7 x 6 = **42**	9 x 9 = **54**
8 x 10 = **80**	6 x 7 = **42**	8 x 3 = **24**	3 x 2 = **6**	7 x 7 = **49**
4 x 3 = **12**	5 x 5 = **25**	1 x 9 = **9**	10 x 3 = **30**	7 x 9 = **63**
9 x 9 = **81**	10 x 8 = **80**	2 x 9 = **18**	6 x 6 = **36**	1 x 5 = **5**

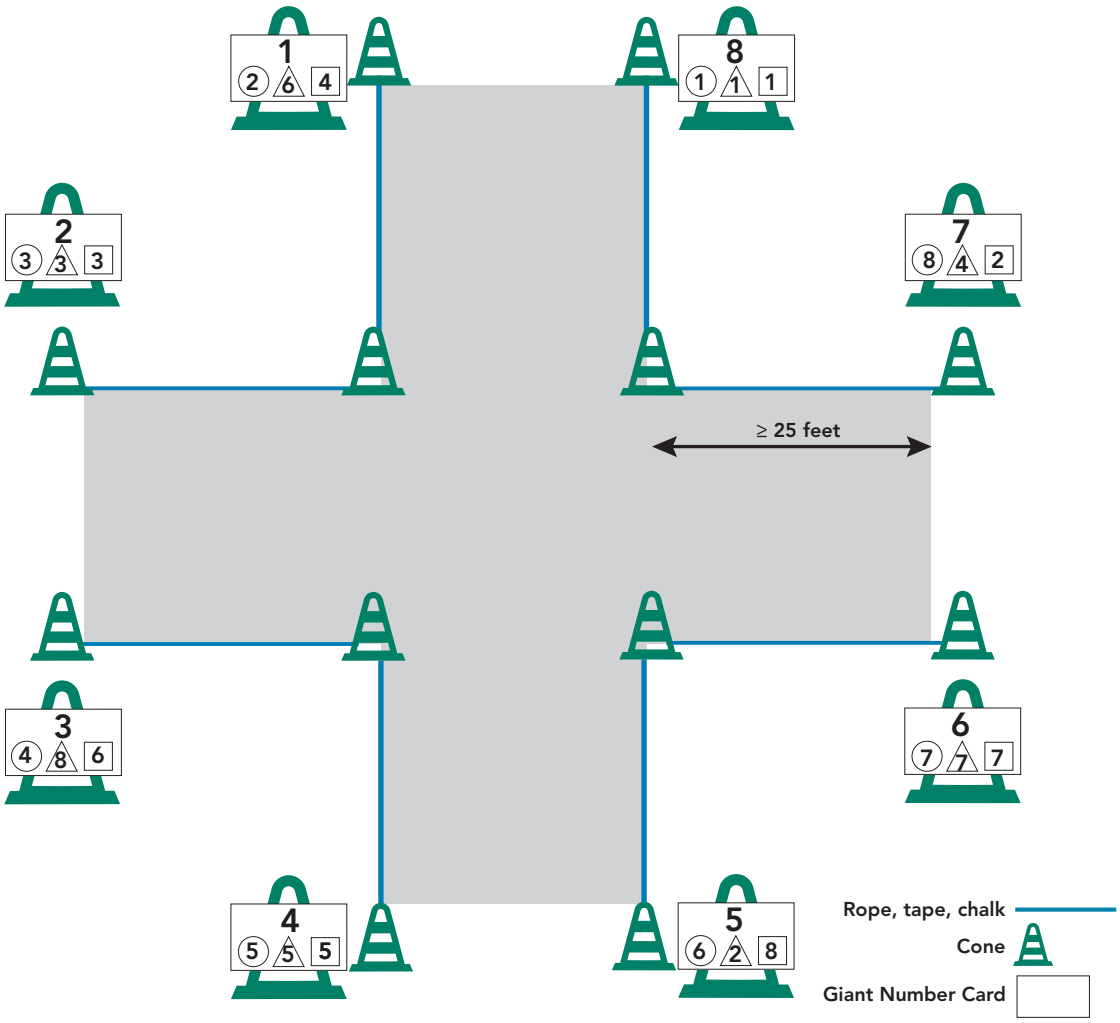
REAL INTERSECTION WALK

Practicing pedestrian safety skills in the environment to which the skills apply is an important part of the learning process. This is the culminating activity for the Intersection lesson. Students will have the opportunity to practice crossing at a real intersection. Secure a low traffic intersection on or around campus. Consider using law enforcement or school resource officer to assist with this activity, especially if using an intersection off campus. Set up the giant numbered cards around the intersection as they are set up for the Model Intersection activity. Adult volunteers should stand beside the GNCs to give guidance and provide security. This activity is conducted the same way as the Model Intersection activity, only now the students are working in a real intersection.

Objectives: To teach students how to apply all the skills they have learned throughout the pedestrian safety unit in a real traffic situation.

Material/Equipment: Four adult group leaders, 8 GNC, Low traffic intersection (could be on school campus or intersection near or adjacent to campus), and 12 traffic cones.

Set-up: Using a low traffic intersection on or around campus, place eight Giant Number Cards (GNC) around the perimeter in a counter-clockwise direction. See Diagram below.

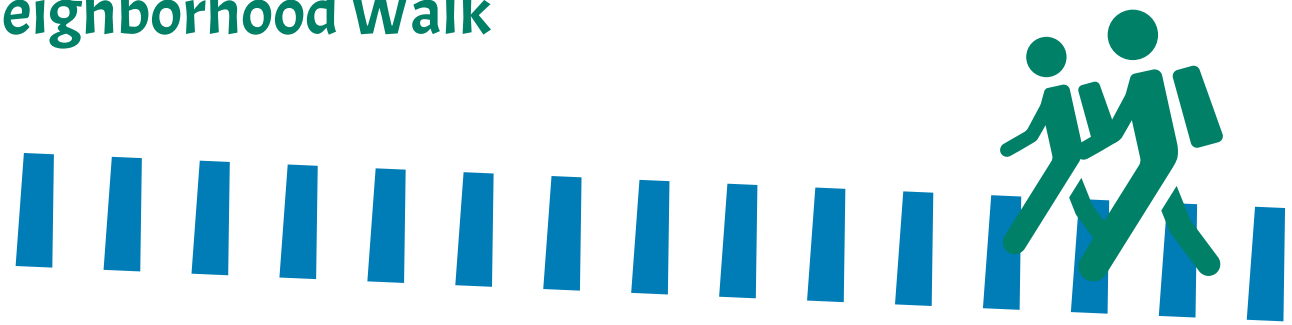


Instructor: Demonstrate the stop and search pattern for intersections with your back toward the class: a) Stop at the edge; b) Look left-look right-look left again, and search behind and forward; c) Cross when clear; and d) Keep looking while crossing. As in previous activities, have the students say everything aloud. Assign or have the students choose partners.

Similar to the Model Intersection Crossing, divide the adult volunteers and students into eight groups and send each group to a GNC. Once each group is at their GNC, instruct the students to look at the GNC where they will see three shapes (each with a number inside) that correspond to a destination. Tell the students that you will hold up a shape, which will guide them to their next destination. For example, using the GNC 1 example below, if you held up a circle, the students at GNC 1 would walk to GNC 2. Once at GNC 2, they would look at the circle, which would instruct them to go to GNC 3, and so on. You may choose to have the students follow one shape for the entire activity (e.g., making loop using the circle 1 to 2, 2 to 3, 3 to 4, etc.), or you may change the shape throughout the activity.

Gather the students together and discuss crossing at an intersection when no vehicles are present, with traffic, and with a visual barrier. Practice the Step Back (three steps) if a car is present. Have the students practice moving out past a visual barrier and stopping at the new edge.

Neighborhood Walk



BACKGROUND INFORMATION

This culminating activity combines all of the learned pedestrian skills. It is important that a neighborhood walk be the final part of a sequence of pedestrian skills activities that the students learn. If you decide to venture off the school property for this activity, you may need field trip permission slips. It is also necessary to have additional parent volunteers, teacher aides, and/or law enforcement (approximately 2 adults per 8-10 students) to assist with the activity.

Prerequisites
Students must know how to properly stop at the edge, search left-right-left again, and to step back when traffic is near. Students must complete all Pedestrian Safety lessons prior to going on a neighborhood walk.

Objectives
Students will be able to demonstrate skills learned throughout all the pedestrian safety lessons.

NEIGHBORHOOD WALK

Material/Equipment: Leader question/discussion cards, cell phones, first aid kit, list of student names and parent phone contact numbers.

Set-up: Identify a safe and varied route for this activity (Between ½ and 1 mile long). The route should be located in a quiet neighborhood adjacent to the school. If this is not possible, conduct the walk on the school campus. Try to include intersections, and visual barriers. Look for a route that has safer features such as an area with sidewalks, crossing guards, good lighting, low traffic, where others are walking, no construction, etc. Plan a few points (control points) along the route to stop and have a discussion about the route.

Instructor: Assemble the class and discuss the purpose of this final activity. Students are to identify surface hazards, visual barriers, potential moving hazards, and discuss why this is or is not a good place to walk.

Divide the class into small groups of 8-10 students with two adults per group (one to lead and one to bring up the rear). Leaders must know the route and be ready to lead discussion on the purpose of the lesson. Discuss how to choose a safe route and what to look for in a good route (choose an area with sidewalks, crossing guards, good lighting, low traffic, where others are walking, avoid construction areas, etc.).

Note: Make sure leaders have walked or bicycled the route before this lesson, have a copy of the questions/discussion card, and have cell phones and contact information (see material list).

At the control point (stopping/waiting site) discussion will take place about the road/sidewalk conditions, traffic etc.

Sample Questions to be asked at each control point.

1. WHAT DID YOU NOTICE AS WE WERE TRAVELING TO THIS PLACE?
   Surface conditions, visual barriers, hazards, problems, people, flowers.

2. WHAT SOUNDS DID YOU HEAR?

3. DID YOU NOTICE SOMETHING THAT ONE OF OUR GROUP MEMBERS DID WELL?
   Identify good behaviors, scanning, signaling, and communicating.

4. CAN YOU SEE THE NEXT CONTROL POINT (POINT OUT A LANDMARK OF THE NEXT PLACE YOU'LL STOP)? HOW SHOULD WE GET THERE? WHAT DO WE DO FIRST? WHAT DO WE NEED TO BE CAREFUL OF?

5. WHEN YOU GET TO THE CONTROL POINT WHAT WILL YOU DO?
   Move off of the roadway and wait patiently for everyone.

You may also fill out the Safe Routes to School Walkability Checklist with your class as you walk through the route. This will help the class evaluate the route based on various conditions such as presence of sidewalks, speed of road, lighting, etc. See checklist link below:

http://www.saferoutesinfo.org/sites/default/files/walkabilitychecklist.pdf

Alternative Activities

1. **Geography: Walk Across Florida** Choose a relatively close city or "hot spot" on the map and begin to learn about this destination. While doing so, have the students keep a walking log and plot their progress on the map. When their destination is reached, reward them with a special party or even a field trip to their chosen location.

2. **Walk on Wednesdays (WoW)** Encourage your students to walk to and from school on Wednesdays and give them extra credit or bonus points for that day. The bonus points will persuade the children to walk to school while building an atmosphere that promotes physical activity and good health. **http://www.walktoschool.org.uk/content/wow_scheme.php**

3. **National "Walk to School Day" in October of each Year** The "Walk to School Day" encourages school children to walk or bike to school. The purpose of this campaign is to increase awareness of physical activity amongst children, reduce air pollution by reducing the number of automobiles around the school and to create safer routes for walking and cycling. For more information, please go to the official National Walk-Bike to School website at: **http://www.walkbiketoschool.org/**

Safe Routes to School
Bicycle Safety Lessons - Fifth Grade

The Bicycle Safety lessons introduce students to bicycle handling, following rules of the road, and interacting with traffic. The unit begins by teaching safety topics such as Helmet Importance and Fit, Seeing and Being Seen, and Rules of the Road, then progressively incorporates on-bike skills such as Balance, Stopping, Hazard Avoidance, Scanning, and Lane Positioning. The unit ends with students performing these skills in a bicycle skills course, a mock intersection, and a real neighborhood street situation.

ADDITIONAL BICYCLE SAFETY LESSONS AND VIDEOS:

In addition to the bicycle safety lessons found in this guide, below are a few additional resources for lessons and videos from national organizations.

Bike Safety Curriculum from Society of Health and Physical Educators (SHAPE) America:

Bikeology is a ready-to-use bicycle-safety curriculum for physical education teachers and recreation specialists working with students in grades 6-12.

This curriculum is aligned with the National Standards for K-12 Physical Education and includes lessons and assessments for the skills and knowledge students need to enjoy a lifetime of safer bicycling. It also includes a guide to share with parents that provides ways in which they can support safe bicycling, including guidance on selecting an appropriate bicycle and helmet for their child.

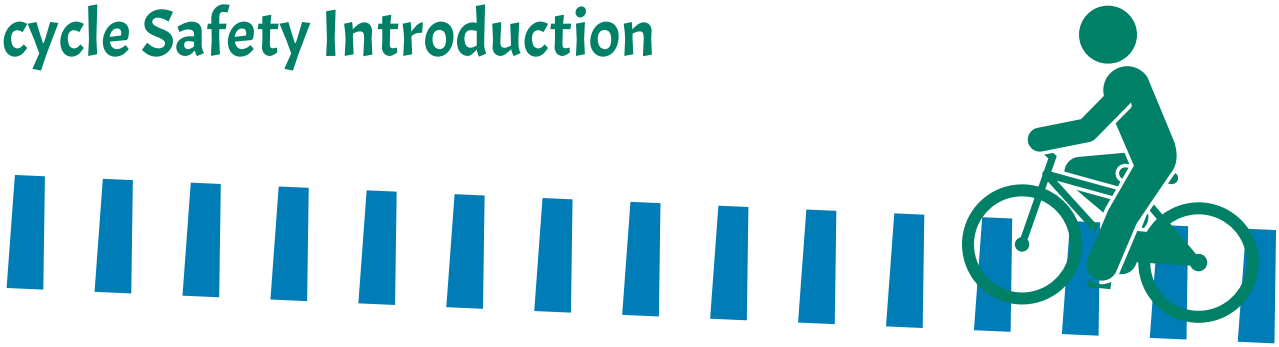
http://www.shapeamerica.org/publications/resources/teachingtools/qualitype/bicycle_curriculum.cfm

League of American Bicyclists Smart Cycling videos:

The online Smart Cycling program is designed to develop knowledge of bicycling safety by using lessons, interactive components, and videos. Videos cover topics such as the different types of bikes and bicycling gear, techniques for improving your ride, rights of bicyclists, and how to ride safely on the road. Many of these videos complement the bicycle skills taught later in this guide such as: starting and stopping, scanning, signaling, ABC Quick Check/Bike Inspection, intersection positioning, traffic laws, bike fit, and bike helmets.

http://www.bikeleague.org/ridesmartvideos

Bicycle Safety Introduction



BACKGROUND INFORMATION

Whether riding with adult family members or friends, children must learn basic bicycle safety to prevent injuries and prepare for a lifetime of safer bicycling. Preventing bicycle-related injuries requires a combination of approaches: engineering strategies to improve the physical environment for bicycling, enforcement strategies to reduce vehicle speeds and increase safe passing by drivers, and safety skills development and education for drivers and bicyclists (Bicycle Safer Journey, 2017). While lessons covered later in the bicycle unit will focus on specific bicycle skills, this introductory lesson is designed to provide an overview and get students thinking about bicycle safety. In the Bicycle Safer Journey elementary video, students will learn how to get ready to ride, pick when and where to ride, and the importance of riding with an adult or older sibling.

* Bicycle Safer Journey videos were developed by the U.S. Department of Transportation's Federal Highway Administration.

Objectives
Students will be able to identify the importance of being predictable while riding a bicycle. Students will understand the importance of wearing a bicycle helmet. Students will be able to plan a safe route prior to riding their bicycle. Students will be able to identify ways that they can be visible to drivers and the importance of being seen.

Videos
Bicycle Safer Journey – Ages 10-14, Bike Safe – Bike Smart

VIDEO: BICYCLE SAFER JOURNEY – AGES 10-14

http://www.pedbikeinfo.org/bicyclesaferjourney/mi_en.html

Guided Discussion:

You may use the following questions from the Bicycle Safer Journey Quiz to guide a discussion about bicycle safety. Depending on the ability of your students, you may ask additional, higher-order questions such as asking students about their experiences while riding a bicycle.

1. YOU ARE PLANNING TO RIDE YOUR BIKE TO A FRIEND'S HOUSE FOR THE FIRST TIME, AND YOU ARE A LITTLE UNSURE OF HOW TO GET THERE. WHAT SHOULD YOU DO?
   Before you ride, talk with your parents to plan a route with the least traffic. Unless you are signaling, keep both hands on the handlebars and do not talk on your phone or text while you are riding. If you need to use your phone, stop and pull off the road or to the side of the sidewalk or trail first.

2. ON YOUR WAY TO SCHOOL, THERE IS A ROAD THAT HAS A LOT OF TRAFFIC. IF YOU DON'T FEEL COMFORTABLE CROSSING IT ON YOUR BIKE, WHAT CAN YOU DO?
Get off your bike and walk across a crosswalk. You also may want to look for routes with less traffic to use in the future.

3. YOU HAVE HEARD THAT BIKES ARE CONSIDERED VEHICLES, BUT WHAT DOES THAT MEAN?
When you are riding your bike on the road, follow the same rules as motor vehicle drivers do. Look for road signs and traffic signals and do what they say, and ride on the right side of the road in the same direction as traffic.

4. WHEN DO YOU NEED TO WEAR A HELMET?
You need to wear a helmet every time you ride, no matter where you're riding or your riding abilities. Unexpected things can happen that you cannot control, like a driver who pulls out in front of you.

5. WHAT DOES BEING PREDICTABLE WHEN RIDING MEAN?
Riding in a straight line (not swerving back and forth), doing what drivers expect you to do and being where drivers expect you to be, and staying focused and paying attention to what's around you.

6. YOU ARE HEADED TO THE STORE ON YOUR BICYCLE. AS YOU COAST DOWN YOUR DRIVEWAY, WHAT DO YOU NEED TO DO?
Stop and look for traffic before leaving the driveway and entering the street. You should already be wearing your helmet. If it is dark outside, be sure you have working lights and reflectors on your bike.

7. YOU KNOW YOU ARE SUPPOSED TO BE VISIBLE AND PREDICTABLE FOR DRIVERS, BUT SHOULDN'T DRIVERS BE WATCHING OUT FOR YOU? WHY DO YOU HAVE TO DO ALL OF THIS STUFF?
It is important for you to do your part to be safe while riding. Don't assume that drivers will see you so stay focused and pay attention to what's around you.

Depending on the ability of your students, you may also consider showing the next Bicycle Safer Journey video (ages 15-18).

VIDEO: BICYCLE SAFER JOURNEY – AGES 15-18
http://www.pedbikeinfo.org/bicyclesaferjourney/hs_en.html

Guided Discussion:

Below are some discussion questions suggested by the Bicycle Safer Journey (age 15-18 video). You may use these questions and add additional questions to get students to think more critically about bicycle safety. The purpose of the discussion is to reinforce key messages from the video, including the importance of being visible, following the rules of the road and being predictable when bicycling. The questions may be assigned as individual work or for discussion in a small group or with the entire class.

1. WHY IS IT IMPORTANT FOR BICYCLISTS TO GO IN THE SAME DIRECTION AS TRAFFIC WHEN RIDING ON THE ROAD?
Answers should include:
   - *Bicycles are considered vehicles. When riding on the road, bicyclists must follow the same rules of the road that drivers do.*
   - *It is part of being predictable. Drivers are not expecting bicyclists to ride facing traffic.*

2. DARK OR NEAR-DARK TIMES OF THE DAY ARE PARTICULARLY RISKY FOR BICYCLING. WHY?
Answers could include:
   - *It may be more difficult for drivers to see bicyclists.*
   - *Heavier commuter traffic sometimes coincide with low light times of day.*
   - *Drivers may not be expecting to encounter bicyclists during these times of day.*

3. HOW CAN BICYCLISTS AND DRIVERS MAKE IT SAFER TO RIDE IN LOW LIGHT CONDITIONS?
Answers should include (but are not limited to):
   - *Bicyclists should use a bike lights and reflectors.*
   - *Bicyclists should wear reflective gear.*
   - *Drivers should watch for bicyclists and give them space when passing (instructors may want to reference their state's law regarding passing).*

4. WHY IS IT IMPORTANT FOR BICYCLISTS TO TAKE THE LANE WHEN APPROACHING AN INTERSECTION OR SOME OTHER TURN, OR WHEN THE LANE NARROWS? TAKING THE LANE IS WHEN A BICYCLIST MOVES TO THE MIDDLE OF A LANE.
Answers could include:
   - *To be more visible to drivers.*
   - *To make sure the bicyclist has enough room when a lane narrows to avoid the possibility of getting forced to the side of the road.*
   - *So that drivers cannot pass a bicyclist who might be about to make a left turn and risk hitting them.*

***Note** to instructor: You may want to ask a knowledgeable student to draw a diagram of these last two situations and explain it to their peers*

5. IF YOU HAD TO CONVINCE A FRIEND TO WEAR A HELMET, WHAT WOULD YOU TELL THEM? WHAT REASONS WOULD YOU GIVE?
Open discussion Conversation should include:
   - *Helmets reduce the risk of brain injury*
   - *A crash can happen regardless of a rider's skill, riding location (like a trail vs a road) or the length of the trip.*

6. IN YOUR OWN COMMUNITY, ARE THERE SOME PLACES YOU GO BY CAR OR TRANSIT, BUT DON'T FEEL COMFORTABLE GOING BY BIKE? FOR DESTINATIONS THAT ARE WITHIN BIKING DISTANCE BUT DON'T FEEL SAFE TO RIDE TO, WHAT WOULD NEED TO CHANGE SO THAT YOU COULD RIDE YOUR BIKE THERE IF YOU WANTED?
Answers could include features such as:
   - *Less traffic*
   - *Slower traffic speeds*
   - *Bike lanes*
   - *Separated path or trail*
   - *Wide shoulders*
   - *Non-freeway route option*

7 HAVE YOU EVER SEEN A RISKY SITUATION INVOLVING A BICYCLIST AND A DRIVER? WHAT DID THE DRIVER DO? WHAT DID THE BICYCLIST DO? WHAT WAS THE RESULT? HOW COULD THE SITUATION HAVE TURNED OUT DIFFERENTLY (EITHER BETTER OR WORSE)?
Open discussion
Conversation should include:

- *Bicyclists are legitimate road users.*
- *Drivers and bicyclists both need to share and follow the rules of the road.*
- *Your state law on passing may also be discussed here.*

Note about sidewalk riding: While the bicycle lessons are designed to teach students how to be safer riding in a variety of situations, many children ride on sidewalks. In Florida, sidewalk riding is legal unless a local ordinance prohibits sidewalk riding (usually in a downtown area or business district). While riding on a sidewalk is often thought of as safer since it separates a bicyclist from traffic, it is important to teach about the potential dangers of sidewalk riding. For example:

- Driveways, side streets, and intersections should be treated with extreme caution since drivers may not always be looking for a bicyclist on the sidewalk. It is important to stop at side streets and intersections before crossing the road, and be cautious of cars pulling in and out of driveways.
- There may be visual barriers obstructing the view of drivers and the bicyclist (e.g., parked cars, bushes, fences).
- Sidewalks may have other users such as pedestrians or other bicyclists.
- Sidewalks may have uneven surfaces or obstructions (e.g., parked cars, utility work, debris).

While no place is completely safe to ride (sidewalk, road, path/trail), it is important to understand the potential dangers of each. Parents should use their judgement of where to have their children ride based on their ability and experience.

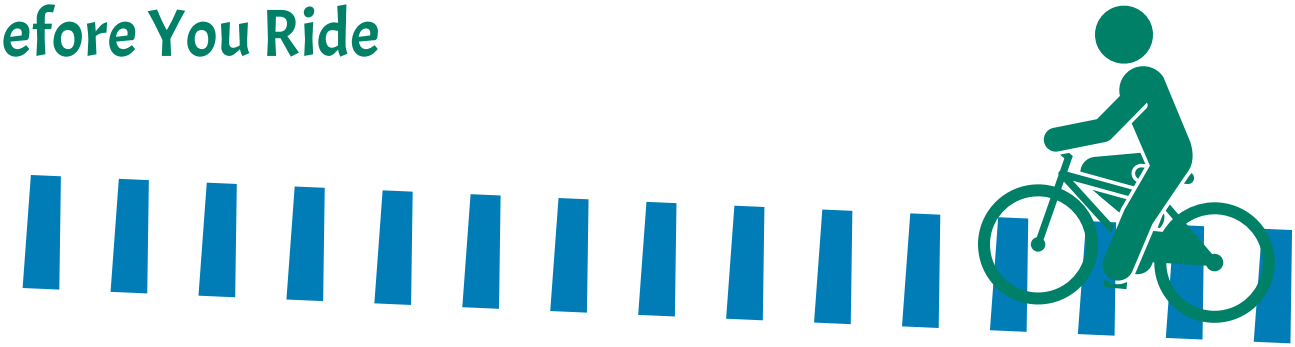
Additional bicycle safety overview video from the National Highway Traffic Safety Administration:

VIDEO: BIKE SAFE – BIKE SMART

This entertaining, yet instructional, nine-minute bicycle safety video uses a visually stimulating, peer-to-peer approach to teach elementary and middle school aged audiences how to Bike Safe Bike Smart. Viewers will learn about: the rules of the road, signaling, riding at night, safe riding practices and risky behaviors that they should avoid. There are also tips for purchasing and correctly fitting a bicycle helmet.

https://youtu.be/uBGW8j__Jsg

Before You Ride



BACKGROUND INFORMATION

Before getting on a bicycle, it is important for students to learn about certain safety topics. This lesson covers helmet fit, bicycle fit, seeing and being seen, bicycle inspection, identifying hazards, parking and locking your bike, and rules of the road. After learning this information, students will be better prepared to begin learning bicycle handling and traffic skills.

Objectives
Students will be able to explain the importance of wearing a helmet and demonstrate how to fit a helmet.

Videos
See videos below and Helmet Fit video.

BICYCLE SAFETY AND HELMETS

Many fatal bicycle crashes are the result of head trauma. Research has shown that wearing a properly fitted bicycle helmet reduces the risk of head, brain, and severe brain injury by up to 88%. Scientists measure how hard something hits with "g-forces." Things that hit hard have a high "g-force" and high potential for damage. Three hundred g's is enough to cause permanent brain damage. Five hundred g's can fracture the skull and cause death. The head of someone who falls from bicycle height to a concrete surface can receive a force of more than 1800 g's. CPSC or SNELL approved helmets can reduce the 1800 g's of bicycle falls to less than 200 g's, which is not enough to fracture the skull or cause permanent brain damage. As students will learn later in this lesson, Florida law requires an approved, properly fitted and securely fastened bicycle helmet for bicyclists and passengers under 16 years old.

*Thompson, D. C., Rivara, F., Thompson R. (1999). Helmets for preventing head and facial injuries in bicyclists. Cochrane Database of Systematic Reviews.

Additional helmet fitting videos from the National Highway Traffic Safety Administration:

Animation of proper helmet fitting:
FITTING A BIKE HELMET
https://youtu.be/hLlXswx0VvQ

Additional helmet fitting practice taught by children:
RIDE SMART IT'S TIME TO START
https://youtu.be/PkVeKrk-WOE

This funky, fast-paced video uses humor, real-life examples, computer graphics and a peer-to-peer approach to teach middle and high school youth about how wearing a bicycle helmet can protect them from serious injuries (including brain injuries) and death. The approximately nine-minute video features a diverse group of teens and pre-teens modeling the newest, coolest looks in helmets and includes the entertaining yet instructional "raw egg drop" demonstration. The video also explains how to correctly fit and position a bicycle helmet and select a helmet that meets Consumer Product Safety Commission (CPSC) standards. It also discusses key rules of the road. The video's target audience is middle-school children (grades 5-9) and can be used by parents, youth groups, medical personnel, traffic safety organizations, educators and injury prevention groups.

Material/Equipment: CPSC-approved bicycle helmets (one for each student), 2 raw eggs or 2 ripe melons (cantaloupe or honeydew), waterproof barrier (plastic bag) and a box full of Styrofoam pieces/ packing peanuts, sturdy chair (do not use a foldable chair), step stool, or other stable object, surgical caps for helmets that are reused (see information about potential of lice later in this activity). You may also hand out or display the NHTSA *Fitting Your Bike Helmet* handout.

Set-up: Classroom, gymnasium, etc. where you can show videos and practice helmet fitting. If choosing to use the videos, you will need computer, projector, and screen. For the Egg Drop/Melon Drop Activity, make sure to have a hard surface (floor, table, etc.) the cardboard box with Styrofoam pieces and two eggs (one in each sealed zip lock plastic bag) and a stable chair or step stool.

VIDEO: HELMET FIT

Guided Discussion:

1. WHAT DID YOU NOTICE ABOUT THESE PEOPLE?
   They are all healthy and happy.

2. WHY DO YOU WEAR A HELMET?
   Protect my brain.

3. HOW FAR ABOVE YOUR EYES SHOULD THE HELMET SIT?
   Two fingers.
   Demonstrate how to position the helmet so that there are only three child-size or two adult-size fingers from the eyebrow to the helmet.

4. USE YOUR FINGERS AND SHOW HOW THE STRAP SHOULD SIT AROUND YOUR EARS.
   Demonstrate making the letter V with two fingers.

5. HOW MUCH ROOM SHOULD YOU HAVE UNDER YOUR CHIN STRAP?
   Two fingers space.
   Pull down with two fingers.

EGG DROP/MELON DROP ACTIVITY

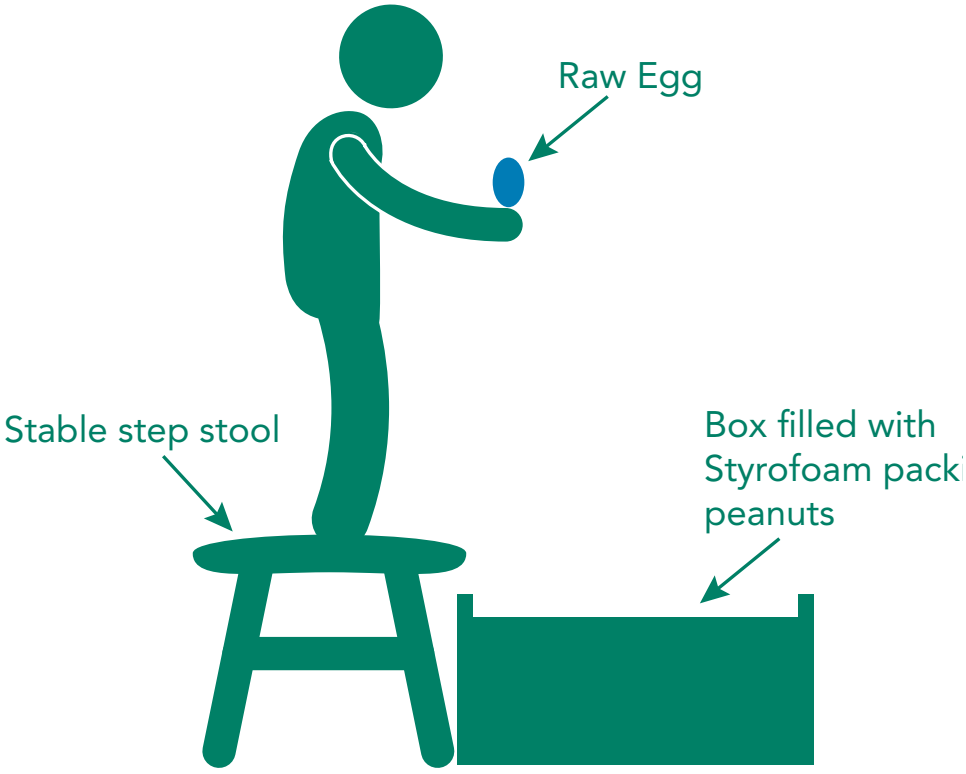
Instructor: Before you have the students practice fitting their helmets, do the Egg Drop demonstration. It is essential that students make the connection that an egg represents the human brain inside the skull (important material within a fragile shell), and that the Styrofoam represents protection like the foam of a helmet. Place the egg in a zip lock plastic bag.

Ask the class to decide how far from a hard surface (floor or concrete) they can drop the egg without breaking it. Let a student drop the egg from that distance. (Be sure to cover the surface with a waterproof barrier and/or put the egg in a zip lock bag.) The egg will break when dropped from a height as low as 3 inches.

Using a second egg, ask the class how high you can drop another egg without it breaking. The higher you drop the egg from, the better, so you may use a step stool or ladder to drop the egg from a higher point. Drop the egg into a box full of Styrofoam pieces. (Be sure the box is a large enough target to hit.) The egg should not break, even if dropped from heights over six feet.

Show the class a bicycle helmet. Explain that it is constructed with an inside crushable liner of Styrofoam, like that in the box, which can reduce force to the head from an impact. Explain that helmets must be replaced if they are ever dropped or involved in a crash.

Variation: Perform the same experiment using a ripe melon. Drop a ripe melon from about six feet onto a hard surface, and it will burst or sustain obvious damage. Then snugly strap a melon into a helmet, and drop it. The melon should still be intact. Be sure to perform this activity on asphalt or concrete. If the helmetless melon does not burst, save it for a few days and the damage will become obvious (similar to how bruises may appear after a few days). Also, the helmet you use should only be used for this demonstration, as it will be damaged in the fall. (Keep it as your "Melon Drop" helmet.)



After the students have watched the helmet fitting video(s) and egg drop demonstration, distribute helmets (and surgical caps if using) to have them see and touch the protective features of the helmet. Discuss that the outer shell keeps the helmet liner intact and creates a smooth skidding surface in the event of a crash. Discuss how the crushable foam inside absorbs the shock of the fall. Give the students time to buckle and unbuckle the chinstrap until they are comfortable doing this. Challenge the students to close their eyes and practice. This will help them when buckling the helmet on their head. Discuss with the students the importance of riding in a responsible manner. While helmets help protect your head, they are not something you want to have to use. If a helmet hits the ground hard, it loses its shock absorbing capabilities and should be replaced. Allow students to choose a partner to help one another put on the helmets. (See the NHTSA *Fitting Your Bike Helmet* handout for further instruction on the proper way to fit a helmet.) Also teach the students the "Two Finger Rule": On the Forehead: Between the bottom of your helmet and your eyebrows, At the Chin Strap: Fit snugly between your strap and chin, and The V: To make sure your straps make a "V" right under your earlobe.

Fitting Your Bike Helmet

Buy it. Fit it. Wear it. EVERY RIDE!

The Proper Helmet Fit

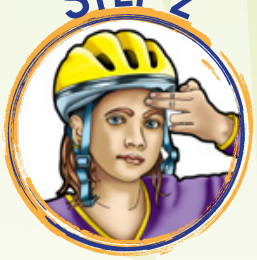
Helmets come in various sizes, just like hats. Size can vary between manufacturers. Follow the steps to fit a helmet properly. It may take time to ensure a proper helmet fit, but your life is worth it. It's usually easier to look in the mirror or have someone else adjust the straps. For the most comprehensive list of helmet sizes according to manufacturers, go the Bicycle Helmet Safety Institute (BHSI) Web site at: www.bhsi.org/.

STEP 1

Size:

Measure your head to find your size. Try on several helmets in your size until one feels right. Now put the helmet level on your head and adjust the sizing pads or fit ring until the helmet is snug.

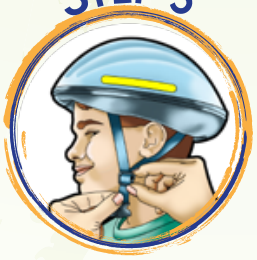
STEP 2



Position:

The helmet should sit level on your head and low on your forehead—one or two finger-widths above your eyebrow.

STEP 3



Side Straps:

Adjust the slider on both straps to form a "V" shape under, and slightly in front of, the ears. Lock the slider if possible.

STEP 4

Buckles:

Center the left buckle under the chin. On most helmets, the straps can be pulled from the back of the helmet to lengthen or shorten the chin straps. This task is easier if you take the helmet off to make these adjustments.

STEP 5

Chin Strap:

Buckle your chin strap. Tighten the strap until it is snug, so that no more than one or two fingers fit under the strap.

STEP 6

Final Fitting:

A. Does your helmet fit right? Open your mouth wide…big yawn! The helmet should pull down on your head. If not, refer back to step 5 and tighten the chin strap.

B. Does your helmet rock back more than two fingers above the eyebrows? If so, unbuckle and shorten the front strap by moving the slider forward. Buckle and retighten the chin strap, and test again.

C. Does your helmet rock forward into your eyes? If so, unbuckle and tighten the back strap by moving the slider back toward the ear. Buckle and retighten the chin strap, and test again.

D. Roll the rubber band down to the buckle. All four straps must go through the rubber band and be close to the buckle to prevent the buckle from slipping.

Replace a Helmet.

Replace your helmet when it has been in a crash; damage is not always visible.

Buy/Fit the Helmet For Now.

Buy a helmet that fits your head now, not a helmet to "grow into."

Ensure Helmet Comfort.

If you buy a helmet that you find comfortable and attractive, you are more likely to wear it. Readjust as necessary to ensure the helmet fits properly each ride.

Cover Your Forehead.

Adjust the helmet fitting based on your helmet first being in the correct position, level on the head and low on your forehead.

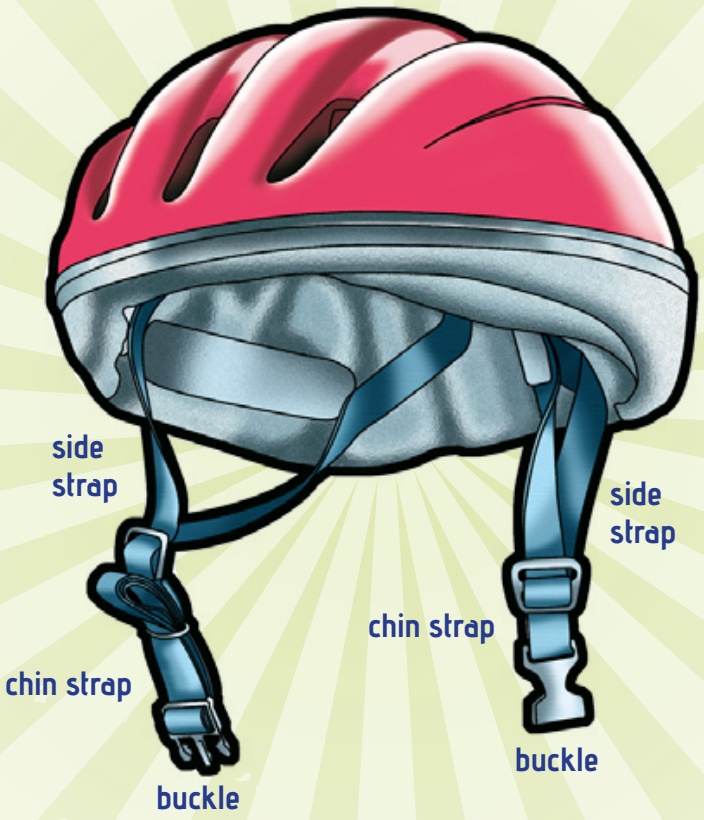
Adjust Straps Until Snug.

Both the side and chin straps need to be snug.

Avoid Helmet Rocking.

Your helmet should not rock forward or backward, or side to side on your head.

If your helmet rocks more than an inch, go back to step 6, and readjust.



Be a "Roll" Model for Safe Behavior

Everyone — adult and child — should wear a bicycle helmet each time they ride. Wearing a helmet each ride can encourage the same smart behavior in others.

Helmet Certification

Bicycle helmets sold in the U.S. must meet the standards issued by the U.S. Consumer Product Safety Commission (CPSC). Look for the certification label inside the helmet.

Helmet Laws

More children ages 5-14 go to emergency rooms for bicycle-related injuries than with any other sport; many are head injuries. As a result, many States and local jurisdictions have child bicycle helmet laws to increase and better ensure the safety of children when bicycling. See: www.helmets.org/mandator.htm.

Like car crashes, bicycle crashes can happen at any time, involving not only children, but adults, many of whom are skilled riders. In fact, middle-age adults represent the average age of bicycle riders killed and injured.

Helmets are the single most effective piece of safety equipment for riders of all ages, if you crash. Everyone should choose to wear a helmet; it just makes sense!

For more information on bicycle safety, visit the National Highway Traffic Safety Administration Web site at:
www.nhtsa.dot.gov/bicycles

ROLL MODEL

NHTSA
www.nhtsa.gov

DOT HS 811 568
April 2012

8019-050212-v2

Head Lice and Cleaning Helmets

The following information is from the Bicycle Helmet Safety Institute

http://bhsi.org/louse.htm
Bicycle Helmet Safety Institute
4611 Seventh Street South
Arlington, VA 22204-1419 USA
Phone: (703) 486-0100

Summary: Head lice can be controlled by using inexpensive surgical caps or by leaving helmets in storage for two weeks while the nits die. Vacuuming and wiping out the helmets is another recommended method. Head lice are a potential problem for bike rental shops who provide helmets to bike renters. They are also a problem for schools who want to use the same set of helmets for students in different classes.

Head lice are gray insects about the size of a sesame seed who are blood-sucking parasites. They thrive only on human heads and hair. Head lice infestations are common throughout the US. They cross all social groups and ethnic communities. Although annoying, head lice do not carry diseases. But the saliva they leave produces intense itching of the scalp, with possible secondary bacterial infections.

The female louse produces about 90 eggs, known as nits, during a one-month lifetime. They look like tiny white dots attached to individual hairs, either near the scalp or nestled behind ears and at the nape of the neck. A louse away from a human head will not live for more than 24 hours, but the nits can survive up to 10 days.

Lice can be a problem any time helmets are swapped around. School outbreaks have been traced to the use of a single batting helmet for softball players.

To control lice in helmets, The National Pediculosis Association recommends vacuuming and wiping out the helmets, noting that a louse can survive less than 24 hours away from a human host, but the nits on a hair left in the helmet could survive up to 10 days. Detachable foam fitting pads and the nylon straps can be washed. Some patients have had good results removing nits by rinsing their hair with white vinegar prior to washing with shampoo or soap.

Although microwave ovens are used for delousing some items, microwaves damage helmet materials, so you should never use one for a helmet. A good alternative if the helmet is not being used immediately is sealing it in a plastic bag for 2 weeks until any louse that hatched from a nit inside the bag would be dead.

One emailer suggests using painter caps under the helmet. They get enough caps for each kid in the class donated by a local paint company. The company gets the advertising, and the kids love the caps. The caps are thin and should not interfere with the fit of the helmet.

The best solution we have heard of for schools is the one the Washington Area Bicyclist Association uses for their education program. They buy surgical caps from Moore Medical, at a cost of 10 cents each. The caps work well, but there are obvious caveats: keep the cap in place and make sure it covers the whole head. The main problem would be heat buildup in hot weather, but the caps are "lightweight but durable spun bound fabric that permits increased airflow, keeping the wearer cool and comfortable during long surgical procedures." WABA reports that the kids barely whimper about putting on the caps, probably because the instructor already has one on when they are introduced.

Another emailer has suggested that use of shower caps under a helmet could prevent the spread of lice. They were thinking of the thin clear plastic ones found in hotel rooms. Those would be hotter and sweatier than the surgical caps.

Spray delousers can be found in a local drugstore. We have not yet heard from anyone using any of these products, and we don't know whether or not they contain any chemicals that could damage a helmet. If you want to use one of those, we recommend contacting the helmet manufacturer to ask if the product is compatible with their materials.

While testing helmets for possible damage from hair products, we tried Lice Shield lice repellant. It was the most repelling smelling stuff among the 25 different products we tested with. If you are thinking about using it, take a whiff before you buy. It did not do damage to the helmets we tested it on, even sprayed directly on the inner liner. But we could not imagine wearing one of those helmets!

For the most up-to-date general info on lice we recommend a visit to the National Pediculosis Association Web site at headlice.org. It is really the definitive source.

TRIANGLE TAG

Background Information: A helmet is one of the most important pieces of protective gear a child can wear. It is estimated that proper helmet use can prevent as much as 85% of deaths caused by bicycle-related head injuries in all age groups. To ensure proper fit, try moving the helmet from side to side and from front to back, after it has been fitted.

Prerequisites: *Helmet Fit*

Objectives: Students will understand how a secure, properly fitted helmet looks and feels when in motion.

Material/Equipment: Helmets

Set-up: After students have properly fitted their helmets, do this activity in a large open space such as a gymnasium, court, or field.

Instructor: After each student has properly fit a helmet, divide them up into groups of four. One person from each group is designated as the "tagger," and another person is designated as the person to be "tagged." The person to be "tagged" and the other two students hold hands and stand in a triangle formation. The person designated as the "tagger" stands outside of this group.

The group moves in a side-to-side movement as the "tagger" attempts to tag the student designated to be "tagged." The "tagger" cannot go under or over the group.

As the students move around, those helmets that are secure and those that are not will become evident.

- Check two fingers above eyebrows
- Check two fingers space in chin strap
- Check 'V' below ear
- Check for movement on head

If helmets are secure, the students are ready to begin on-bike activities. If you and the students notice some helmets are loose or move around too much, have the student partners adjust the helmets.

SEEING AND BEING SEEN

Background Information:

Many bicycle and pedestrian-related crashes occur because the motor vehicle driver did not see the bicyclist or pedestrian. Bright and light colors, such as white, yellow, orange, neon, and hot pink, are the most visible. Contrasting colors, such as stripes, are also great attention-getters. Children should wear these colors whenever they bike or walk. Additionally, backpacks and helmets should be brightly-colored. Children should generally avoid riding at night or when visibility is low. Those who must travel at such times need to wear bright retro-reflective clothing or other reflective equipment over their clothing (vests, jacket, etc.) and have reflectors and lights on their bikes. (See notes at end of lesson)

Objectives: Students will be able to identify ways that they can make themselves more visible. Students will be able to explain the importance of being visible and identify how to make themselves more visible.

Material/Equipment:

Students wearing an outfit in each of the following categories:

- Bright colors such as neon, yellow, or hot pink
- Light colors such as white
- Contrasting dark with light colors
- Dark colors such as black, navy, brown, forest green, and camouflage

Also, a jacket or vest with retro-reflective strips and other reflective items (wrist/leg bands, head bands, etc.), sunglasses, and flashlight.

Set-up: Classroom where lights can be dimmed/turned off to show differences between bright colors and retro-reflective gear.

Instructor: Ask the class why being visible is important when walking or riding a bicycle? *How can you increase your visibility so drivers and others can see you when you are walking or riding your bicycle?* Dim the lights and have the students close their eyes. Ask your four volunteers to stand side-by-side in a row at the front of the room. Ask the class to open their eyes and say whom they see: First? Second? Last? Ask students which colors are most visible.

Explain to students which colors are most visible. (See below.) Explain to students why it is their responsibility to make sure motorists can see them. Show students retro-reflective material. Turn the lights out, and shine a flashlight on the material to show the class how the material stands out.

Notes:

- Most visible colors—yellow, white, orange, neon, hot pink, bright green; also, contrasting colors and patterns such as hot pink and blue, stripes and polka-dots.
- Least visible colors—dark colors such as black, brown, navy, forest green, and camouflage materials.
- Students should avoid night riding. Those who must walk or ride at dusk or at night need to wear retro-reflective material over clothing, on backpacks, and on helmets. According to Florida Law, a bicycle needs a white light in the front and a red light on the back (also red rear reflector) when ridden at night.
- Retro-reflective materials reflect light back to the light source when shined upon.

To further discuss how to make sure drivers see them while walking or bicycling, you can stand at the front of the class and put on sunglasses. Depending on the shade of the sunglasses, the students will not likely be able to see your eyes. While looking at the class, focus your eyes on a particular student and ask the class who they think you're looking at. Most likely, they will not be able to tell since you are facing the entire class and they cannot see your eyes. This scenario occurs in the real-world while walking or bicycling during the daytime. Ask the students: *Just because you see a driver, and they are looking your way, does that mean they see you?*

Answer: *No, just because a driver is looking our way does not mean they can see us. We need to communicate with a wave or verbally to make sure they see us.*

Note: Sun Glare

Visual barriers such as trees, shrubs, and parked cars are not the only reasons preventing drivers from seeing pedestrians, bicyclists, and other road users. Sun glare, caused by the sun being low on the horizon in the direction of vehicle travel, is responsible for a number of crashes. Many sun glare accidents happen early in the morning or late afternoon when the sun is low on the horizon. Additionally, the switch from daylight-saving time to standard time puts drivers on the road when the sun is low on the horizon. Unfortunately, these times coincide with the morning commute and school travel, which puts pedestrians and bicyclists at higher risk. Pedestrians should always check traffic prior to entering the roadway, and never assume a driver sees them.

FIND THE TWELVE HAZARDS

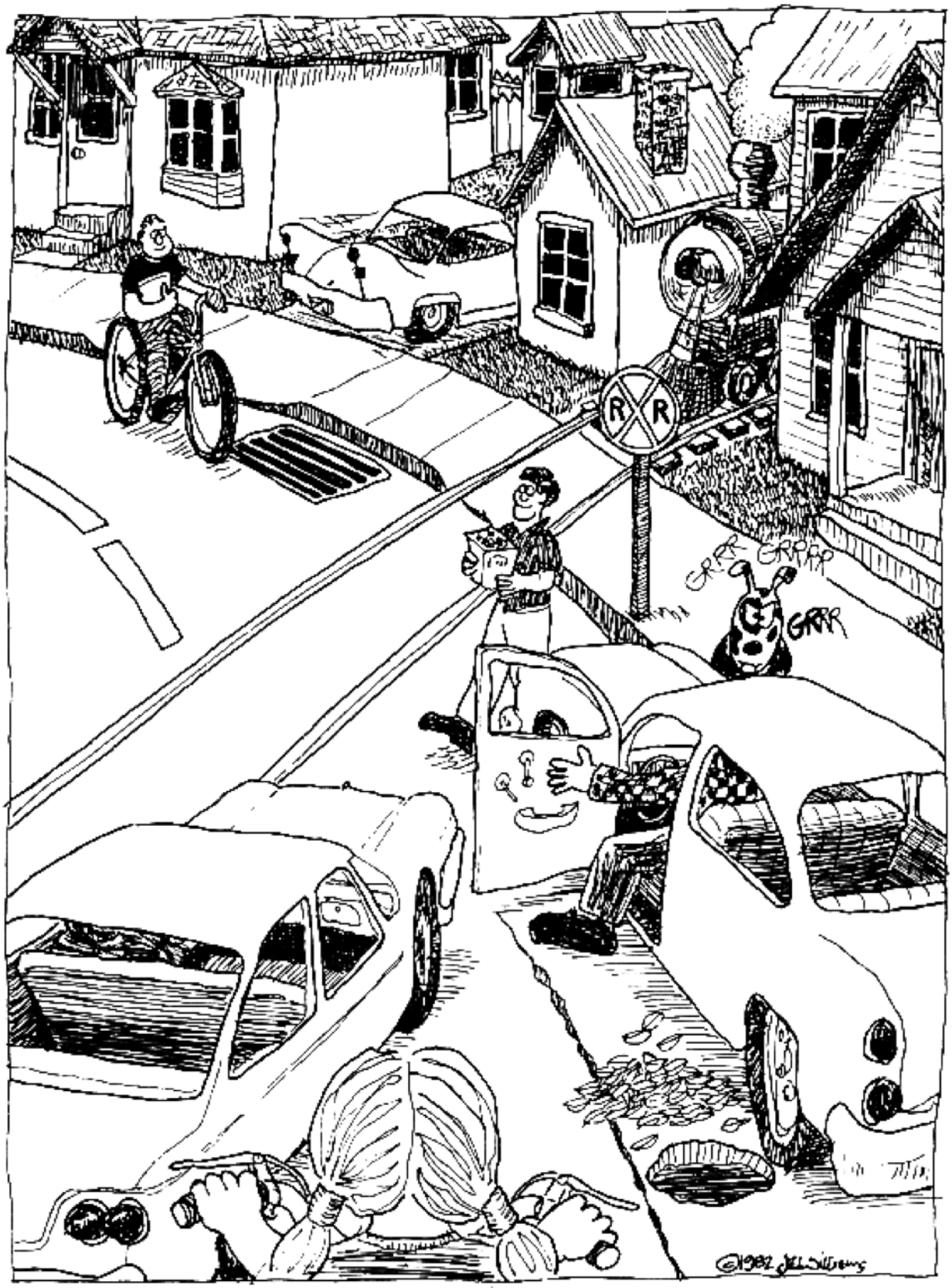
Background Information: This activity will encourage students to think about different hazards and why hazard avoidance is important. Students should also become familiar with the different types of hazards: surface, moving and stationary. This is a good opportunity to discuss how these types of hazards are different, but all potentially dangerous.

Objectives: Students will be able to identify common hazards and what to do when they come across those hazards.

Material/Equipment: 12 Hazards Activity Sheet(s). The *Find the 12 Hazards* Activity Sheet can be printed out, enlarged and laminated so they can be used from class to class and year to year, or you can pull the file up on a screen using a computer and projector. If using laminated sheets, have the students mark hazards using dry erase markers.

Set-up: Classroom, gymnasium, or anywhere where students can get into groups and identify hazards on the *Find the 12 Hazards* Activity Sheet. If choosing to put the 12 Hazards image up on a screen for a class activity, choose a classroom with computer, projector, and screen.

Instructor: Before doing the activity, discuss that there are many different types of hazards while walking and bicycling. They can be put into categories such as stationary hazards, moving hazards, and surface hazards. It is best to have students do this activity in small groups so they can work together in identifying hazards. Break the students into groups of 3-5 and hand out the *Find the 12 Hazards* activity sheets. Instruct them to find at least 12 potential hazards to the bicyclist in the illustration, as well as to think of at least one hazard (not in illustration) they have seen in their own neighborhood. You will notice that some students identify hazards that others did not think of, and they have an engaging discussion. After about 10 minutes, ask each group to share one hazard they identified until all are discussed. It is important to not just identify each hazard, but to also discuss 1) Why it is hazardous and 2) How we can avoid or reduce the risk of each hazard. Use the Instructor Master Answers to guide the discussion. Once all hazards on the sheet have been discussed, ask each group to share one hazard they've seen in their own neighborhood.

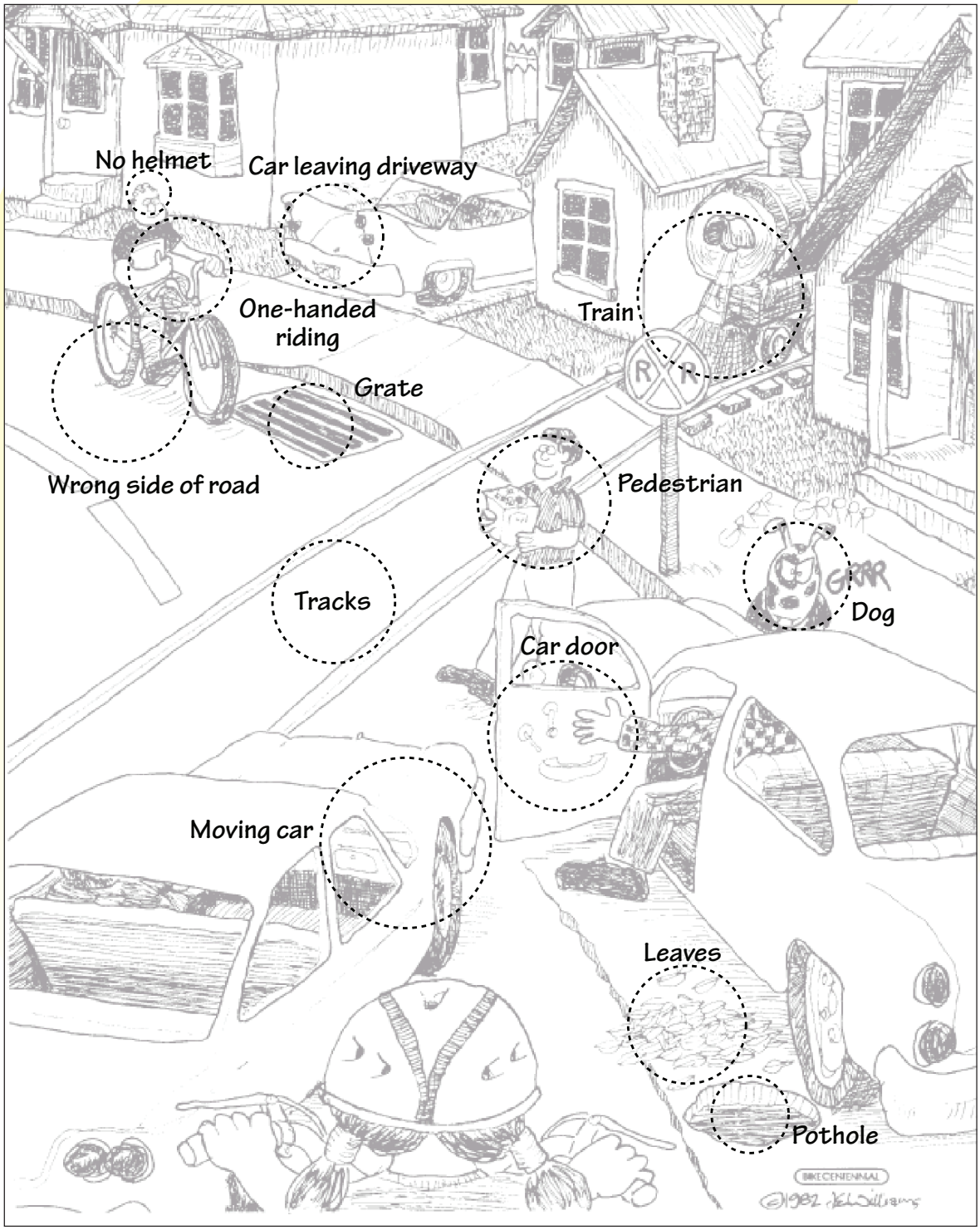


Find the twelve hazards…

JOHN WILLIAMS

Instructor Master Answer Sheets below (from NHTSA)Instructor Master Answer Sheets below (from NHTSA)

Bike Riding Hazards Answer Key



Hazard Explanations

1. Male bicyclist is riding his bicycle against the flow of traffic. The law requires bicyclists to ride with the flow of traffic. This is safer for several reasons:
   a. Motorists look for and expect all traffic to move in one direction and may not see bicyclists riding the wrong way.
   b. Traffic signs and lights face traffic flowing in one direction only. Bicyclists going against traffic will be unable to read and follow traffic signs and signals.
   c. The reaction time of motorists is greatly reduced when bicyclists ride toward vehicles.
2. Male bicyclist is not wearing a helmet. Research shows that up to 90 percent of fatal bicycle crashes are the result of head trauma. A properly worn and certified bicycle helmet cushions and protects the head from injurious impacts with hard surfaces such as asphalt and concrete.
3. Male bicyclist is driving with only one hand on the handle bar. Riding a bicycle with one hand limits the reaction time to hazards and dangerous traffic situations. Bicyclists should always keep both hands on the handle bars except when signaling. Books, packages, and other items should be carried in a backpack or basket.
4. Car backing out of driveway. Bicyclists should stop or slow down at every intersection (including driveways) and watch for traffic. Parked vehicles can begin to move at any time. Look and listen to detect any movement from nearby vehicles. Do not cross in front of or behind an occupied vehicle without communicating your intentions through the use of hand signals and eye contact with the driver.
5. Oncoming train. Stop, look, and listen for oncoming trains and let them pass before crossing the tracks. Use eyes and ears to detect the status of nearby trains. A nearby train will typically send a warning whistle and crossing areas are usually marked clearly with flashing red lights and signs.
6. Railroad tracks. When crossing train tracks, either walk or ride your bicycle across with your wheels perpendicular to the tracks to avoid getting tires caught.
7. Pedestrian crossing street with packages. Bicyclists should always be observant of pedestrians. Pedestrians are often unpredictable, as in this example, and sometimes neglect to search for traffic before entering the street.
8. Opened door of parked car. Bicyclists should always scan parked vehicles for passengers who might open doors. When passing parked cars, allow enough room between the bicycle and vehicles to avoid opening doors. Always scan behind for oncoming traffic before swerving into another lane.
9. Loose dog. If a dog approaches while cycling, yell loudly "No!" or "Go home!" and keep control of your bicycle. If the dog threatens to bite or attack, get off your bicycle, put it between you and the dog, and back away slowly. Do not try to outrun or hit the animal.

10, 11, and 12. Sewer grate, pot hole, and leaves/debris. Bicyclists need to dodge surface hazards without swerving into the path of oncoming traffic. Bicyclists constantly need to search ahead for obstacles and hazards, steering around or dodging them when necessary.

13. Car crossing the path of the girl bicyclist. Motorists sometimes cross in front of bicyclists and then either stop or slow down to turn. This often occurs when the motorist does not see the bicyclist or misjudges the bicyclist's speed. Bicyclists must always BE VISIBLE, BE SEEN. Wear bright-colored clothing, helmet, reflectors, and lights, especially at night. In high-traffic areas, bicyclists should ride slowly to improve their ability to react to the actions of motorists. Cycle defensively and be prepared to use your brakes at all times.

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BICYCLE FIT AND ABC QUICK CHECK/BICYCLE INSPECTION

Background: The first step to having a safe bike is to have one that fits you. A bike that fits you properly helps you stop better, balance better, and conserve your energy. After you find one that fits you, it's just as important to know that all of the parts work. It is very important that you do a bicycle safety inspection every time you ride your bicycle.

Prerequisites: *Helmet Fit*

Objectives: Students will be able to properly fit a bicycle and adjust the bicycle to meet their needs. Students will be able to check a bicycle and make sure that everything is working properly. Students will be able to identify the different parts of a bicycle. Students will be able to identify the steps of the ABC Quick Check.

Material/Equipment: Bike for demonstration.

Set-up: Gather the students around a bicycle that you will use to demonstrate bicycle fit and inspection. It is sometimes useful to elevate the bicycle on a table or bike stand to ensure everyone can see the various components for the inspection.

Note: It may be more effective to teach Bike Fit and the ABC Quick Check/Inspection in the classroom before students get their own bikes. This will keep the students from being distracted by having their hands on a bike. After students see and understand how to be fit to and inspect a bicycle, they will get hands-on practice before they ride.

Bicycle Fit

Ask the class why it is important to have a bicycle that fits you. You may even ask if the students have ever ridden or seen someone ride a bike that did not fit them (too large or too small).

Ask the class why it is important to have a bicycle that fits you? You may even ask if the students have ever ridden or seen someone ride a bike that did not fit them (too large or too small).

Answer: A bicycle that fits you properly helps you stop better, balance better, and conserve your energy. The rider should be able to straddle the top tube of the bicycle frame comfortably while standing flat-footed. There should not be too much or too little room between the rider and the top tube. A general rule is about two to three inches depending on the type of bicycle. The handlebar height should be slightly higher than the saddle and about a cubit (elbow to fingertip) away. If the bicycle is properly adjusted, the rider's weight will be evenly distributed between the pedals, saddle, and handlebars.

Note: If students have good control and balance of the bicycle, you may adjust the saddle (seat) using the quick release to move the seat up or down. Sitting on the saddle, with one foot on a pedal in its lowest position, adjust the saddle height so that the leg on the pedal is nearly extended with only a slight bend at the knee. When in this position, and sitting on the seat, the rider should just barely be able to touch the ground with their toes. While this position is more efficient, it is not appropriate for those who are just learning to bicycle or those who do not have good balance or control while riding. For beginner bicyclists or those with less balance and control, adjust the seat so they can touch the ground with their feet flat.

ABC Quick Check/Inspection

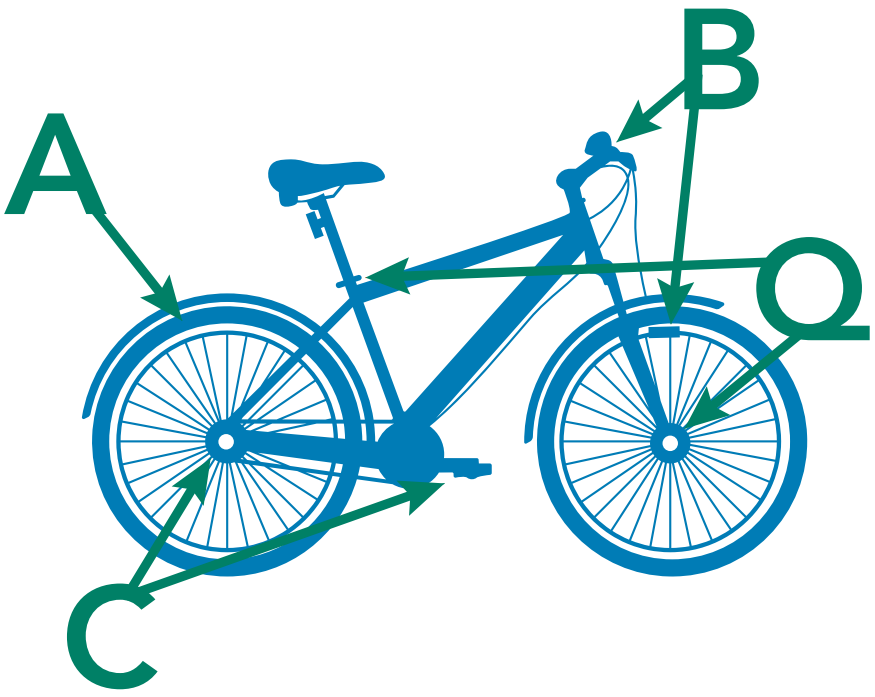
Ask the class why it is important to have a bicycle that works properly.

Answer: Because a bicycle is a machine and every part of the bicycle plays an important role in making it

move and stop. Any part that is broken or not working properly may compromise your safety.

Lead the students through the ABC Quick Check (see below). After you have demonstrated, have the students perform an ABC Quick Check/Inspection of the bikes they will ride. Depending on the number of bikes and students, you may divide the students into groups to maximize their time with practicing the ABC Quick Check.

The ABC Quick Check: A is for Air; B is for Brakes; C is for Cranks, Chain and Cassette; and, Quick Check is for Quick Release(s)



A is for Air

Air is leaving your tires all the time! So pinch the sides of the tires to make sure they have plenty of air. If they appear low, pump them up to the recommended pressure on the side of the tire (or until they are firm).

B is for Brakes

You may be able to ride but can you stop? Push your bike to test your brakes. Does it stop quickly? Your brakes may be foot brakes (coaster brake) or handbrakes. Remember when braking with handbrakes, to squeeze both equally and never only the front brakes (which can cause you to go over the handlebars).

C is for Cranks, Chain, and Cassettes

They're what make your wheels turn when you pedal. Lift the back of your bike and turn your pedals forward. The wheels should turn smoothly and there shouldn't be any odd noises. The chain should not be loose or rusty. Cranks are what the pedals are attached to and turn your chain rings (larger gear near the middle of the bicycle) which spin the chain to turn the cassette (rear gears). The cranks should not be loose, and the chain rings and cassette (gears) should be free of debris, rust, etc.

Quick Check

Check the quick releases on the seat post and wheels to make sure they're secure. Then do an overall "quick check" to make sure the bike is ready to ride. Once you're done with the ABC's look over the rest of your bike and make sure everything looks secure and tight.

Parking and Locking Your Bike

Background Information: Bicycles should be parked and locked in designated bicycle parking areas (i.e., bike racks) which are well lit and secure. Bicycles parked in designated areas will pose fewer hazards to pedestrians. Additionally, properly parked bicycles will be more protected from damage and theft. Students should know where and how to secure their bicycles properly. Local bike shops and police departments can provide information on the level of protection needed in your area. Helmets also need to be stored properly. Helmets in school can be hung on a coat hook by the straps or placed on a shelf. Helmets should not be locked with the bicycle because the sun and rain may damage them.

Objectives: Students will be able secure their bicycles properly. Students will be able to identify places where it is safe and secure to park their bicycle.

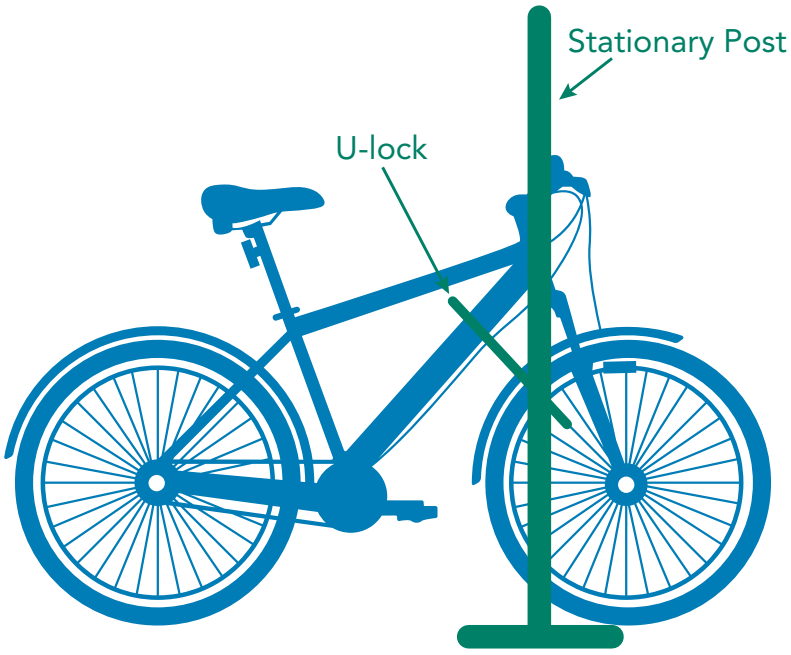
Material/Equipment: Bike and lock for demonstration.

Set-up: Gather the students around a bicycle that you will use to demonstrate parking and locking.

Instructor: Ask students why securing/locking your bike is important. What are some examples of where you could park & lock your bike?

Ask if any student has had a bicycle stolen or knows anyone who has. Discuss where bicycles can be locked at home, at school, or other locations. Mention the importance of locking bicycles to fixed objects, such as bike racks or poles. Demonstrate proper techniques for locking bicycles using the locks that you and students have brought from home. Briefly discuss the advantages and disadvantages of each type of lock. Discuss problems which can arise if bicycles are not parked properly and securely, (i.e., lying on the sidewalk, in the road or in the middle of a driveway). Demonstrate the proper way to use a U-lock, securing the bike frame to a stationary post, pole, fence or a small tree. (It is best to lock the front wheel as well if it is a quick-release wheel). Demonstrate what happens if only the front wheel is locked to a post. (The quick-release allows the front wheel to remain locked while the rest of the bike "leaves"). Discuss where and how students can store their helmets.

Note: It is important to provide a secure and visible place for students to park their bicycles at school.



RULES OF THE ROAD – BICYCLES ARE VEHICLES

Background Information: Many bicyclists, pedestrians, and motorists are not aware of pedestrian and bicyclist traffic laws. They do not know regulations concerning right-of-ways, correct roadway positions, turn signals or lighting requirements. Reviewing the laws teaches students how to act in traffic and helps them anticipate the actions of pedestrians, bicyclists, and motorists.

Objectives: Students will understand the rules of the road and why they must obey them. Students will understand why traffic laws apply to them when they ride their bicycle. Students will understand the importance of being predictable to others.

Material/Equipment: Bicycle Law brochure

Set-up: Classroom

Instructor: Put students in groups of 3-5, and give each group a brochure on the current state laws. Ask each group to "research" one law you will assign to them and present their findings to the class. Law topics include, but are not limited to Legal Status of a Bicyclist/Bicycle, Bicyclists obeying traffic signs/signals, Carrying Passengers, Brakes, Bicycle Helmet, Sidewalk Riding, Lights/reflectors required, Road position/where to ride on the road, and Signaling. Within time restraints, explain each law and have students suggest reasons for its need. For example, explain that anyone under 16 years of age must wear a properly fitted helmet when riding a bicycle. Explain that motorists usually do not look for people moving against the flow of traffic. Bicyclists need to ride with the flow of traffic in order to be seen by motorists. Explain that a bicycle-motor vehicle crash that occurs after dark is more likely to involve serious or fatal injury than one that occurs during daylight hours. Have students suggest reasons why. Then have students suggest other ways bicyclists can increase their visibility. Explain the laws for bike lights and reflectors for night riding. Explain why it is illegal and unsafe for bicyclists to wear headsets/headphones. Discuss other safety tips and laws as time allows.

Note: It can be helpful to have law enforcement such as a School Resource Officer assist with or lead this activity.

Additional Activity: Teachers may wish to have the class make educational posters explaining bicycle laws, and post them around school. Before making the posters, make sure to go over some basic rules, then assign each group a rule of the road to inspire a poster.

From FDOT Alert Today Alive Tomorrow
http://www.alerttodayflorida.com/laws.html

FLORIDA BICYCLE LAWS SYNOPSIS

316.027 Leaving the scene of a crash involving death or injury of a vulnerable road user may be a felony

316.074 Obedience to required traffic control devices The driver of any vehicle shall obey all official traffic control signal devices, placed in accordance with the provisions of this chapter, unless otherwise directed by a police officer *(See 316.075 Traffic control signal devices)*

316.075 Traffic control signal devices — *(See Pedestrian Laws on other side)*

316.081 Driving on right side of roadway Vehicles proceeding at less than normal speed of traffic shall be driven as far right as practicable except when overtaking and passing another vehicle, preparing for a left turn, avoiding an obstacle, or upon a roadway designated for one-way traffic

316.083 Overtaking and passing — Driver overtaking a bicycle must pass bicycle at a distance not less than 3 feet

316.084 When overtaking on the right is permitted— the vehicle overtaken is making a left turn, with unobstructed pavement not occupied by parked vehicles of sufficient width for two or more lines of moving traffic in each direction, or a one-way street

316.085 No vehicle shall be driven to the left side of the center of the roadway unless such left side is clearly visible and is free of oncoming traffic for a sufficient distance ahead to permit such overtaking and passing

316.091 Limited access facilities; interstate highways No person shall operate a bicycle or other human-powered vehicle on the roadway or shoulder of a limited access highway or bridge unless official signs and a designated bicycle lane indicate use is permitted

316.123 Vehicle entering stop or yield intersection– Shall stop at marked stop line, but if none, before entering the crosswalk or, if none, then where the driver has a view of approaching traffic on the intersecting roadway before entering the intersection

316.125 Vehicle entering highway from private road or driveway or emerging from alley, driveway or building — *(See Pedestrian Laws on other side)*

316.130 (15) Shall exercise due care to avoid colliding with any pedestrian or human-powered vehicle

316.151 Required position and method of turning at intersections
316.151 (1)**(a)** Right turn — Both the approach and a right turn shall be made as close as practicable to the right-hand curb or roadway edge

316.151 (1)**(b)** Left turn — A person riding a bicycle is entitled to the full use of the turn lane

316.151 (1)**(c)** A bicyclist may also complete a left turn in two steps

316.155 When signal required— Signal of intent to turn must be given continuously during the last 100 feet, except a bicyclist need not give arm signal continuously

316.157 Method of giving hand and arm signals Signals given from the left side, except that a bicyclist may extend the right arm horizontally for a right turn

316.183 & 316.185 Unlawful speed & Special hazards Speed shall be controlled to avoid colliding with any person, vehicle, or other conveyance or object. Vehicles should be driven at an appropriately reduced speed to avoid collision when: any special hazard exists with respect to pedestrians or other traffic or by reason of weather or highway conditions

316.1925 Careless driving— Drive in careful and prudent manner, having regard for the width, grade, curves, corners, traffic, and all other circumstances, so as not to endanger the life, limb, or property of any person

316.193 Unlawful to operate any vehicle while under the influence of alcohol or drugs

316.1936 Unlawful to possess an open alcoholic beverage while operating a vehicle or as a passenger

316.1995 No use of a motor to drive a vehicle on sidewalk or bicycle path

316.2005 No opening motor vehicle doors unless and until it is safe and does not interfere with the movement of other traffic

316.2065 Bicycle regulations
316.2065 (1) Human powered vehicles have all rights and duties applicable to any other vehicle, except as noted

316.2065 (2) Bicycles must have a permanent and regular seat

316.2065 (3)(a) Not carry more persons than designed or equipped

316.2065 (3)(d) Rider or passenger under 16 must wear helmet

316.2065 (4) May not attach bicycle or rider to any other vehicle except for a trailer designed for such attachment

316.2065 (5)(a) Bicycles traveling at less than the normal speed of traffic shall ride in the lane marked for bicycle use or as far right as practicable except: when overtaking another vehicle proceeding in the same direction, preparing for a left turn, or when reasonably necessary to avoid any condition or potential conflict, including a substandard-width lane, which makes it unsafe to continue along the right-hand curb or edge or within a bicycle lane. For purposes of this subsection, a "substandard-width lane" is a lane that is too narrow for a bicycle and another vehicle to travel safely side by side within the lane

316.2065 (5)(b) May ride near the left-hand curb or edge on a one-way highway with two or more marked traffic lanes

316.2065 (6) May not ride more than two abreast, and may do so only within a single lane and, if traveling at less than normal traffic speed, when it does not impede traffic

316.2065 (7) Use between sunset and sunrise shall be equipped with white lamp on front and a red lamp and reflector on rear; additional lighting permitted

316.2065 (8) No parent or guardian of any minor may authorize or knowingly permit the violation of this section

316.2065 (9) Rider on a sidewalk or crosswalk must observe the duties applicable to a pedestrian

316.2065 (10) Rider on a sidewalk or crosswalk shall yield to pedestrians and give an audible signal before overtaking

316.2065 (11) No roller skates, coaster, toy vehicle, or similar device on roadway except while crossing on a crosswalk

316.2065 (12) Section not applicable to a "play street"

316.2065 (13) Shall be equipped with a brake or brakes

316.2065 (14) Retail bicycles must have an identifying number permanently stamped or cast on its frame

316.2065 (15) May not rent or lease to a child under 16 years unless possesses a bicycle helmet or lessor provides one

316.2065 (18) Failure to wear a helmet or failure of parent or guardian to prevent a child from riding without helmet may not be considered evidence of negligence

316.2065 (19) May not issue citations to persons on private property, except parts open to the public for vehicles

316.2397 Bicycle lights may flash

316.304 Wearing of headsets No wearing a headset, headphone, or other listening device, other than a hearing aid or a headset in conjunction with a cellular telephone that only provides sound through one ear and allows surrounding sounds to be heard

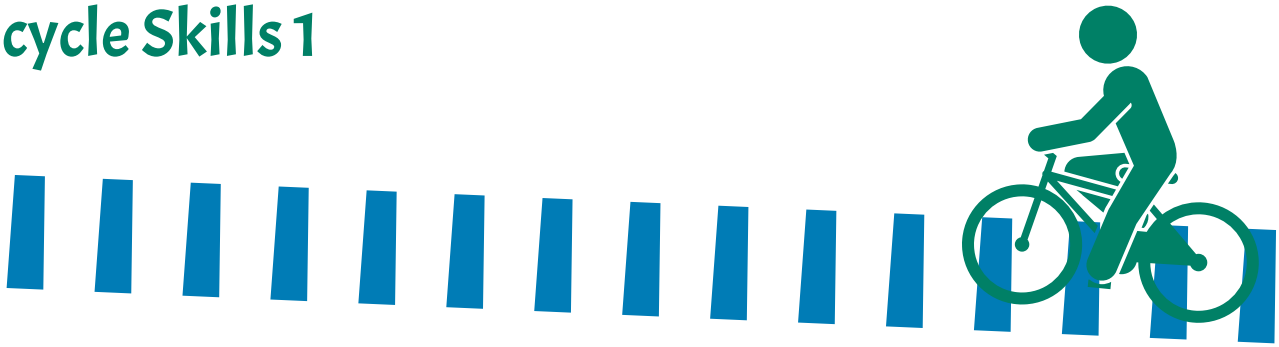
Disclaimer: Statutes cited above are abbreviated.

Complete Florida Statutes text can be found here: http://www.leg.state.fl.us/Statutes (Title XXIII, Chapter 316)

For safety tips and more information, please visit:
www.AlertTodayFlorida.com
www.FloridaBicycle.org

Printed November 2015

Bicycle Skills 1



BACKGROUND INFORMATION

Bicycle Skills 1 is made up of introductory bicycle skills that focus on balance, bicycle handling/control, and basic traffic skill such as stopping and entering a roadway. For more advanced skills see *Bicycle Skills 2 and 3* later in the bicycle lessons.

Note: Students must wear a properly fitted helmet and use the appropriate bicycle size before doing any on-bike skills.

Students should be able to ride a bicycle. If some do not know how, or are not skilled enough, you have a few options. First, you may have them ride through skills on a balance bike (bicycle without pedals). If you do not have a balance bicycle, you can remove the pedals from a standard bicycle and lower the seat all the way down so the student is able to have both feet flat on the ground when sitting. You could also have the students use scooters if you have access to any. Finally, students could go through each course by walking while holding a "handlebar" (e.g., plastic/PVC tubes, foam rods).

Students should go through each individual station at least three times, or until they are capable of performing the skill.

Prerequisites
Helmet Fit, Bicycle Fit, and *ABC Quick Check* (see each activity for specific prerequisite skills)

Objectives
See each activity for specific objectives.

TRAFFIC MIX (WALKING BICYCLES)

Background Information: Many bicyclists are not aware of pedestrian and bicyclist traffic laws. They do not know regulations concerning right-of-ways, correct roadway positions, turn signals or lighting requirements. This station places the students in situations that will allow for their discovery of why traffic regulation is necessary.

Prerequisites: *Bicycle Helmet Fit and Egg Drop Demonstration, Bicycle Fit and ABC Quick Check/Bicycle Inspection.*

Objectives: Students will be able to select the proper bicycle size and conduct the ABC Quick Check. Students will be able to walk their bike and navigate within a defined area without running into other students.

Material/Equipment: Bicycles, helmets, cones, ropes or chalk

📝***Note:*** Students must wear a properly fitted helmet and use the appropriate bike size (See *Helmet Fit* and *Bike Fit* activities).

Set-up: Large open area such as a field, basketball court(s), or secured parking lot. Create a box with the cones and rope or chalk at least 25 x 25 feet.

Instructor: Instruct students to find a partner of similar size, then select an appropriate bicycle and perform an inspection/ABC Quick Check (see *Bike Fit and ABC Quick Bike Check* or refresher below).

Bicycle Fit

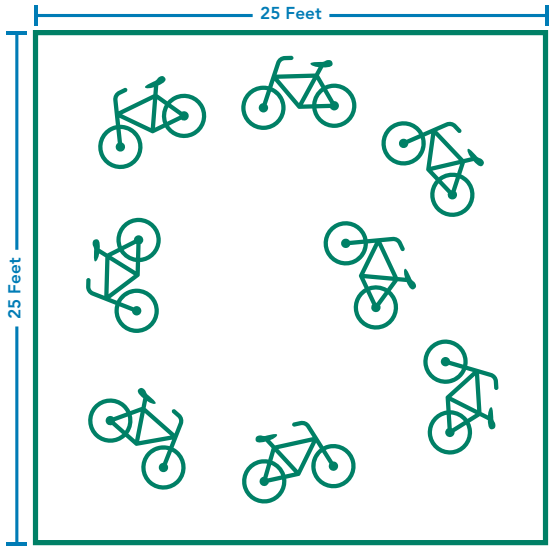
The rider should be able to straddle the top tube of the bicycle frame comfortably while standing flat-footed. There should not be too much or too little room between the rider and the top tube. A general rule is about two to three inches depending on the type of bicycle. The handlebar height should be slightly higher than the saddle (seat) and about a cubit (elbow to fingertip) away. If the bicycle is properly adjusted, the rider's weight will be evenly distributed between the pedals, saddle, and handlebars.

ABC Quick Check/Bike Inspection

After finding a partner and appropriate sized bicycle, ask the groups to perform an ABC Quick Check (Air, Brakes, Cranks/Chain/Cassette, and Quick Releases).

Traffic Mix

The object of this activity is that students move freely about without touching each other or leaving the established boundaries. Call all the students to the center of the defined area, identify the boundaries, and ask students to explore the area within the boundaries by walking around without touching anyone. Partners push their bicycle inside the work area. Each has one hand on the handle bar and the other one on the seat. Instruct them to not follow anyone; but to simply find an empty space and move to it then look for another empty space and continue moving. Keep the students moving and discourage any attempt to follow one another. Encourage the students to jog, and get their heart rate up. To Reinforce the ABC Quick Check, you may stop the movement every 30-45 seconds and discussing one item, then ask them to resume walking or jogging. Students will realize that they need to be aware of all directions and that when everyone moves freely, things can be chaotic. This is a good time to remind students why we have rules of the road (and everyone not moving in all directions on the road). If students were not instructed to keep from following others, you would notice that they naturally develop a more orderly pattern of moving.



STRAIGHT-LINE RIDING

Background Information: The straight-line riding skill is useful as the first bicycle station to assess the skills of students, but to also teach that riding in a straight line is safer since the bicyclist's actions are more predictable (straight line vs. weaving through a lane).

Prerequisites: Students should be able to ride a bicycle, whether assisted with training wheels, using a balance/modified bicycle, having other assistance, or using a scooter.

Objectives: Students will be able to ride in a straight and predictable manner.

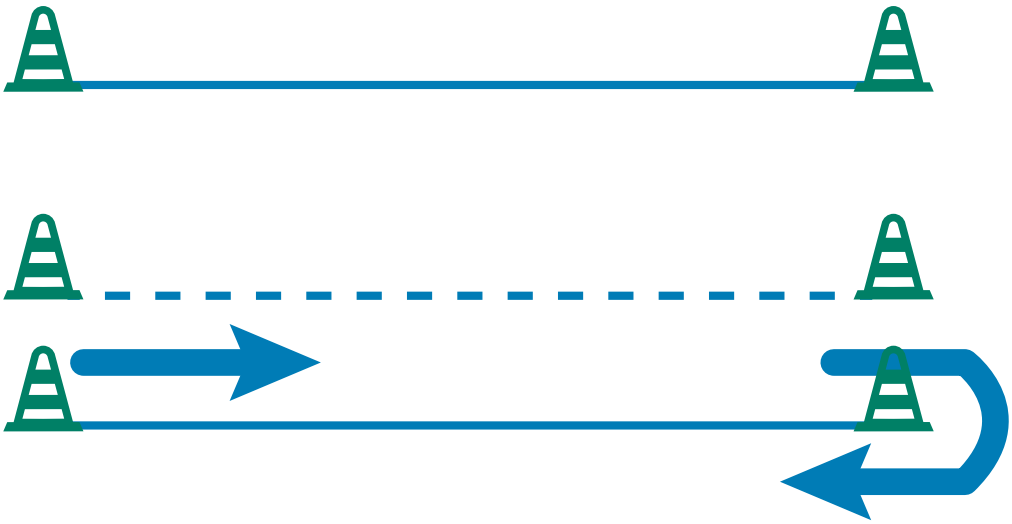
Material/Equipment: Bicycles and helmets, cones, chalk or rope

Note: Students must wear a properly fitted helmet and use the appropriate bike size (See *Helmet Fit* and *Bike Fit* activities).

Set-up: Large open area such as a field, basketball court(s), or secured parking lot. With chalk or rope, make two parallel lines to create a lane similar to what can be found on a real road (10-12 feet wide). Depending on the space you have available, the lane can vary in length, but should be at least 50 feet so that students have enough room to practice maintaining a straight line. Since bicyclists must generally ride to the right of a lane, use chalk or another rope to create a two to three-foot-wide lane to the right. If there are not too many students, you can set up the station like the first illustration below.

If the class is large, you may set up multiple lanes to reduce wait time and allow more students to go at the same time (see multiple lane set-up below the single rider set-up). With chalk or rope, make parallel lines to create lanes of two to three feet wide and at least 50 feet long. If you have access to a running track, it can be a good facility for this skill.

Instructor: Instruct the students to ride the bicycle within the smaller lane to the right of the standard lane and loop back around to the line after going through. Since this is the first station, and the instructor may be assessing the skills of the students, you may instruct the students to go through the station and wait at the end. This prevents them from having to loop back around. Once the students master riding within a narrow lane, instruct them to ride through the lane while taking their left hand off the handlebar a few times. You can verbally instruct them when to remove their left hand, or you may set cones at points along the lane to signal for them to remove their hand. This skill will be used when teaching the stop signal in the *Stopping* Station. If students are unable to remove their hand without losing balance, do not require this step. It is better to maintain balance and control of your bicycle than to take your hand off and potentially crash.



Optional set-up for having multiple students go at the same time. It is a good idea to have a buffer between each lane since students may not have much experience in straight-line riding. Lane size should be based on the ability of the students. Since some are still learning to control a bicycle, make larger lanes for less skilled, and smaller lanes for more advanced riders.

NARROWING LANE

Background Information: While riding a bicycle, there are times where the travel lane narrows, or the bicyclist must control steering and ride in a narrow portion of the lane (e.g., due to debris, drain grates, etc.). This station teaches students to maintain a straight line, keep balance, and maintain a greater level of control in a narrower space.

Prerequisites: *Straight Line Riding*

Objectives: Students will be able to ride in a straight line of a lane that narrows, while maintaining balance and control.

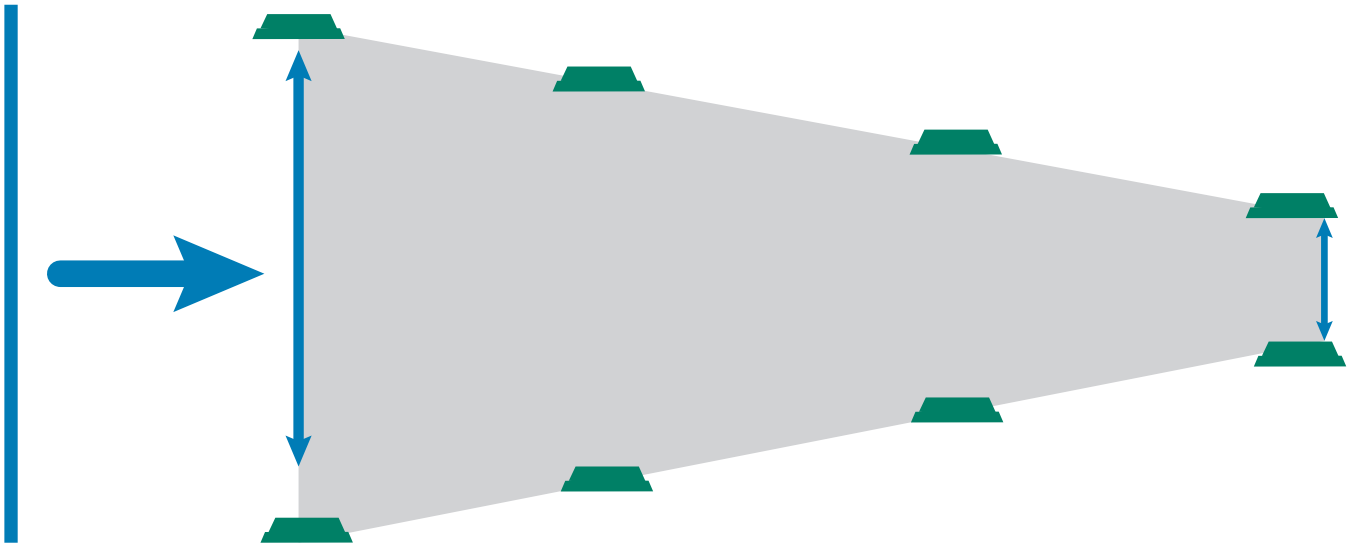
Material/Equipment: Bicycles and helmets, Cones, Chalk or Rope

Note: Students must wear a properly fitted helmet and use the appropriate bike size (See *Helmet Fit* and *Bike Fit* activities).

Set-up: Large open area such as a field, basketball court(s), or secured parking lot. Using cones, set up a lane that narrows from four feet to one foot (or less depending on student ability). Length should be at least 50 feet. Make a start line 15-20 feet behind the first set of cones. Depending on the size of your class, you may wish to make multiple stations so wait time is reduced.

Instructor: Line students up single file at the starting line, and instruct them to go through the narrowing

lane one at a time. When students pass through the end of the lane, have them loop back around to the end of the line. As students become capable of going through the lane, you may narrow the lane to further develop this skill.



HAZARD AVOIDANCE

Background Information: When bicycling, it is important to maintain control of your bicycle and be able to steer around obstacles (e.g., debris, drain grates, etc.). This station further develops the skill of bicycle control, hazard avoidance, and judging distance while maneuvering (as seen in the *Slalom* station), but has the students practice within a narrowed lane similar to if they were riding to the right of a roadway, a bike lane, or even a sidewalk. Since bicyclists may not notice a hazard until it's too late, this skill helps teach students to avoid hazards without swerving too far into the lane.

Prerequisites: *Straight Line Riding, Slalom*

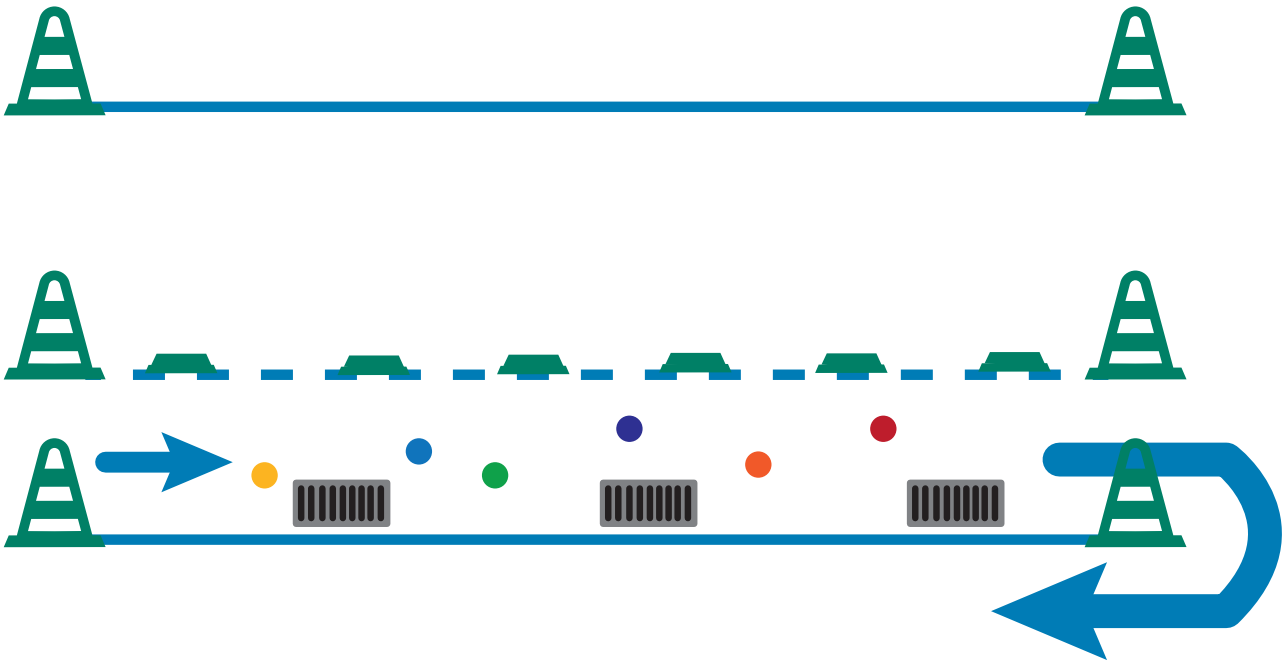
Objectives: Students will be able to ride in a controlled manner while searching and steering around hazards that are in their lane.

Material/Equipment: Bicycles and helmets, Cones, Chalk or rope, something to represent hazards (poly spots, tape, sponges, tennis ball halves, pieces of cardboard, bath mats, etc.)

Note: Students must wear a properly fitted helmet and use the appropriate bike size (See *Helmet Fit* and *Bike Fit* activities).

Set-up: Large open area such as a field, basketball court(s), or secured parking lot. With chalk or rope, make two parallel lines to create a lane similar to what can be found on a real road (e.g., 10-12 feet wide). Depending on the space you have available, the lane can vary in length, but should be at least 50 feet so that students have enough room to practice going around hazards. See similar set-up for the *Straight Line Riding* and *Stopping* drills. Make a start line about 15-20 feet before this skill to give students space to build up some speed. Place items that represent hazards, but are not hazardous, such as poly spots, sponges, pieces of cardboard, mock grates (as seen in the illustration) throughout the course. The number of "hazards" and placement is dependent on the skill level of the students.

Instructor: Instruct students to ride around the hazards without going outside of their lane. When they get to the end, ask them to loop back around to the end of the line. You may also add a stop sign at the end if you would like to add additional practice of the *Stopping* skill.



STOPPING

Background Information: Stopping at the edge of a driveway, at stop signs, and intersections with traffic signs/signals is extremely important and among the first skills of learning to be safe in traffic. A frequent cause of injury to young bicyclists (and pedestrians) is failure to stop. The skill of stopping with control of the bike and looking for "edges," where it is important to stop, begins with the pedestrian skills but continues into the bicycle lessons. This station teaches the proper stopping technique and introduces variables which influence stopping times and distances.

Prerequisites: *Straight Line Riding* (including taking left hand off handlebar to signal if able), Search (Left-right-left again),

Objectives: Students will be able to stop their bicycles in a controlled manner. Students will be able to signal and stop at an edge then search left-right-left again for traffic.

Material/Equipment: Bicycles and helmets, Cones, Chalk or rope, Stop Sign(s)

Note: Students must wear a properly fitted helmet and use the appropriate bike size (See *Helmet Fit* and *Bike Fit* activities).

Set-up: Large open area such as a field, basketball court, or secured parking lot. To reduce wait time and allow more students to go at the same time, you may set up multiple lanes. See the set-up of multiple lanes from the *Straight-line Riding* station (or see below). With chalk or rope, make parallel lines to create lanes of two to three feet wide and at least 40 feet long. If you have access to a running track, it can be a good facility for this skill. At the end of each lane, use chalk to create stopping "zone" three feet from the end of the lane. You will also need to place stop signs at the end of each lane once students are ready for this part of the stopping station. For additional practice, you can set up more than one stop sign in a lane so students stop multiple times when going through the station.

For single-lane drill:

If there are not too many students, you can set up the station like the single-rider illustration below the multiple lane set-up. With chalk or rope, make two parallel lines to create a lane similar to what can be found on a real road (e.g., 10-12 feet wide). Depending on the space you have available, the lane can vary in length, but should be at least 40 feet so that students can practice maintaining a straight line while approaching a stop. Since bicyclists must generally ride to the right of a lane, use chalk or another rope to create a two to three-foot-wide lane to the right. At the end of the lane, use chalk to create stopping "zone" three feet from the end of the lane. Place a stop sign at the end of the lane.

Discussion Questions: What are stop signs, stop bars on the road and traffic signals? Where do you look for them? What do they mean?

Teaching students how to properly stop their bicycle at a stop sign should be taught starting with the skill of basic stopping and progressing up to signaling a stop, stopping at a stop sign, and performing the search (look left-right-left again). Below is one suggestion of how to break down this skill.

Note: You may notice students stopping the bicycle by putting their feet on the ground, but this is unsafe and not an effective way to stop a bicycle. Teach students to use their brakes in a controlled manner. If they are new to bicycling or using brakes, they may apply the brakes too quickly or to forcefully causing a quick stop or skidding of the tires. Instruct students to stop in a controlled manner by anticipating the stop, and evenly applying the brakes so the tires do not skid.

Using the multiple lane set-up, instruct the students to line up single file in groups behind the start line for the lanes (marked with cones, and rope/chalk). Before the students ever ride a bicycle through this set-up, instruct them to walk the bicycles down the lane and to stop at various points when you say stop. The next group of students should go as the previous group goes through the end of the lane. After students get to the end of the lane, they should circle around and go to the back of the line. You may choose to use a "red light/green light" format as an alternative to saying stop as they go through.

Once students have walked their bikes through and become comfortable with the concept of stopping, you may have them jog the bicycles down the lane, stopping when instructed. It will be obvious that it takes longer to stop the bike when moving faster. This is a good point to make when talking about the importance of safely stopping and stopping at a certain point such as a stop bar. The faster a bicycle is going, the longer it takes to stop. Make sure to instruct students to be careful of the pedals when they walk or jog next to their bicycles

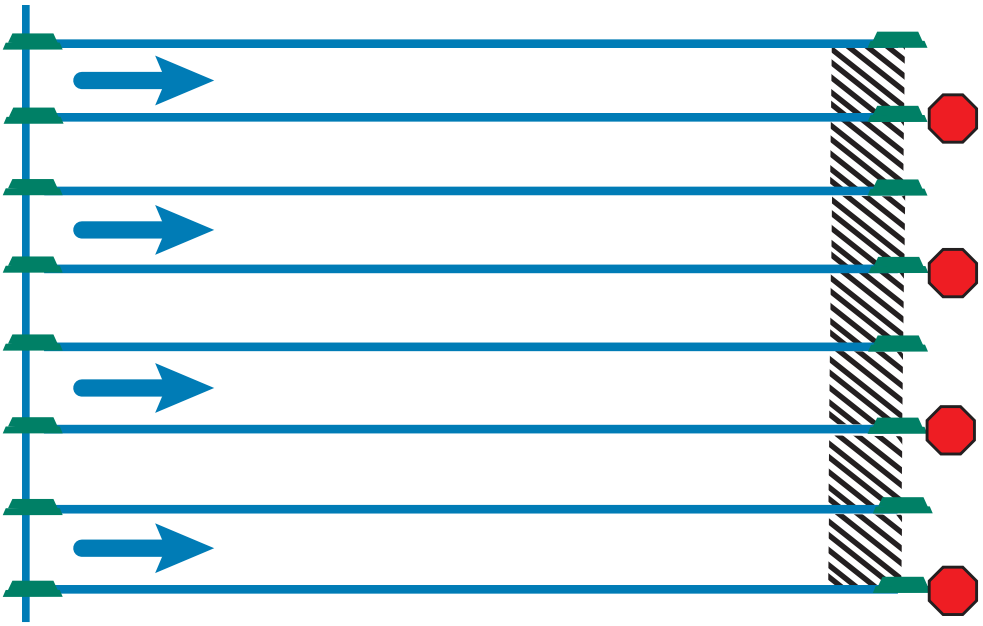
The next step is to have the students ride their bicycles down the lane, stopping when instructed. It is important for students to safely stop in a controlled manner and not skid their tires. Once students have gone through and understand how to properly stop, instruct them to stop their front tire within the stop "zone." This skill is essential so that the students can demonstrate that they can come to a controlled stop at a specific point (e.g., stop bar).

Once the students master stopping in the stop "zone," have them practice signaling their stop if they are able (covered during the *Rules of the Road* lesson) and saying aloud "stopping." It is safest for students to signal, then return their hand to the handlebar so they have more control during the stop. Once students master signaling and stopping within the stop "zone," you can use the second set-up (single lane with stop sign), or you can just add stop signs to the multiple lane set-up. Instruct students to properly signal their stop, perform the search (look left-right-left again), then proceed past the stop sign and circle back to the end of the line.

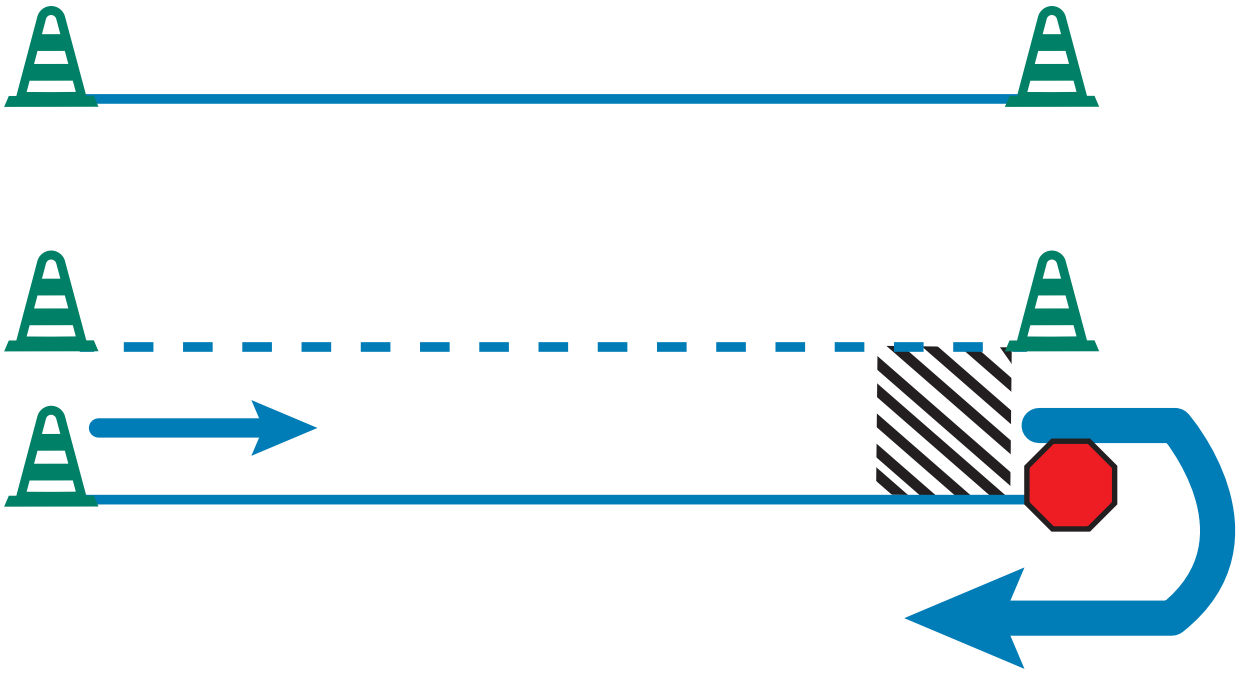
Note: If some students are not able to take their hands off the handlebars to signal, tell them to verbalize their stop. It is better to maintain control of the bicycle than to try to signal and potentially crash.

Set-up for walking-stop and riding-stop:

It is a good idea to have a buffer between each lane since students may not have much experience with controlled stopping.



Optional set-up for stopping at a stop sign using a mock road. You may also choose to use the multiple lane set-up above with multiple stop signs and stop zones.



ENTERING A ROADWAY/DANGEROUS DRIVEWAY

Background Information: A leading cause of bicycle crashes for children is failing to stop before entering the street (e.g., mid-block ride out or driveway ride out). In many cases, the bicyclist's and motorist's vision are obstructed by visual barriers such as parked cars, shrubs, electrical boxes, etc. Students must learn to STOP, then SEARCH left-right-left again before proceeding into traffic. Students look left first because that is the side cars approach closest to the rider, then right, and left again to make sure nothing entered the roadway while looking right.

Prerequisites: *Search* (Left-Right-Left again), *Straight Line Riding*, *Stopping*, *Signaling* (if incorporating signaling into this station)

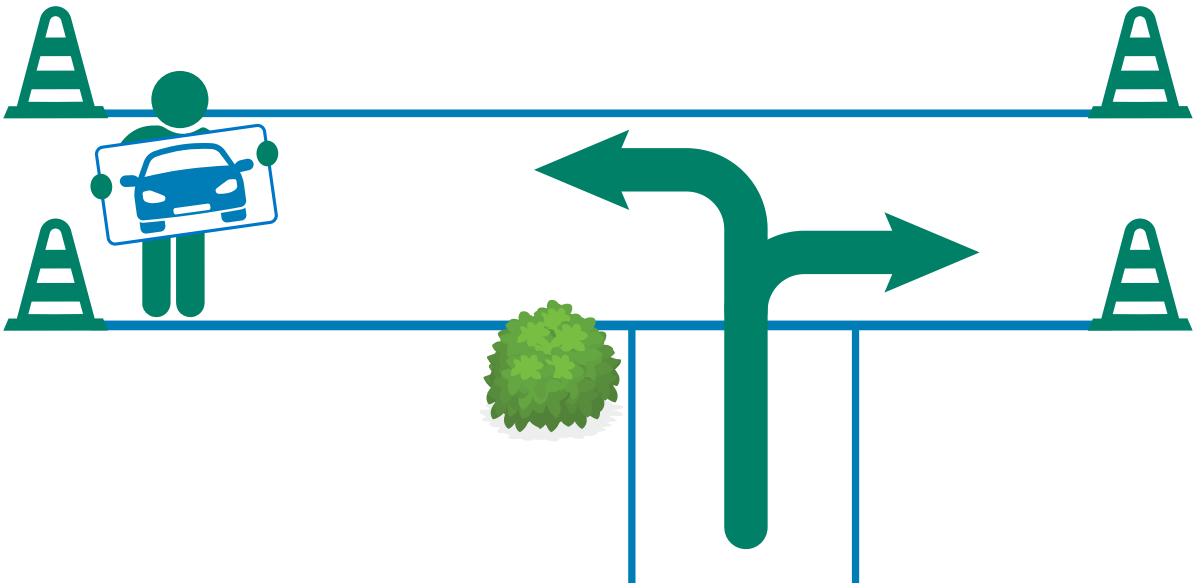
Objectives: Students will be able to stop at the edge of a driveway and perform a proper Search (left-right-left again). Students will be able to look around visual barriers for potential traffic and perform a proper Search before entering the road.

Material/Equipment: Bicycles and helmets, Cones, Rope/chalk, Visual barriers (parked car, cardboard shrubs, electrical boxes, and trashcans)

Note: Students must wear a properly fitted helmet and use the appropriate bike size (See *Helmet Fit* and *Bike Fit* activities).

Set-up: Large open area such as a field, basketball court, or secured parking lot. With chalk or rope, make two parallel lines to create a lane similar to what can be found on a real road (e.g., 10-12 feet wide). Depending on the space you have available, the lane can vary in length, but should be at least 40 feet. Use rope or chalk to create a driveway for the students to walk or ride their bike down to the edge of the road. Place a visual barrier or have someone hold a sign (e.g., bush, fence, etc.) to block the students' view. If you wish to simulate traffic, have someone hold a car sign to the left of the driveway.

Instructor: Line students up at the front of the driveway. You may ask them to walk or ride their bicycles to the edge of the driveway. The objective of this activity is to get the students to stop at the edge of the driveway before riding out into the road. Since there is a visual barrier near the edge of the road, the students will need to stop, and look around the visual barrier to do the search (look left-right-left again) before pulling out of the driveway. Once they perform their search, they may turn left or right (after signaling if incorporating into this station). You may also introduce traffic by using vehicle signs traveling one or both directions in the road.



SNAIL/SLOW RACE

Background Information: The Snail/Slow Race allows students to practice balance and bicycle control, especially when riding in a narrow space.

Prerequisites: *Straight Line Riding, Stopping, Slalom*

Objectives: Students will be able to maintain balance and control of their bicycle while riding within a narrow lane.

Material/Equipment: Bicycles and helmets, Cones, Chalk or Rope

Note: Students must wear a properly fitted helmet and use the appropriate bike size (See *Helmet Fit* and *Bike Fit* activities).

Set-up: Large open area such as a field, basketball court(s), or secured parking lot. With chalk or rope, make parallel lines to create lanes of at least three feet (dependent on the ability of the students). Depending on the space you have available, the lane can vary in length, but should be at least 25-30 feet to allow enough room for the students practice balance and bicycle control. If you have access to a running track, it can be a good facility for this skill. Depending on the size of the class, you may make as many lanes as needed.

Instructor: Using the multiple lane set-up, instruct the students to line up single file in groups behind the start line for the lanes (marked with cones, and rope/chalk) with their front tire on the start line. Tell them this is called the Snail/Slow Race and the last person to the finish line wins the race for that group. The only rules are that they can't put their foot on the ground, turn around, or leave their lane. Depending on the ability of the students, it may be better to make wider lanes so they have more room to go side to side within the lane. As students become more skilled, they are able to maintain balance in a narrower lane. When ready, instruct the first group to go. The winner of each group can go against the winners of other groups in a final round.

Optional Set-up without buffer between lanes:

SKILLS COURSE FOR BICYCLE SKILLS 1

Background information: Once students are capable of performing individual skills it may be helpful to have them go through a skills course where they practice several skills together. This allows students to go through one skill after another while practicing previous skills. Depending on the space you have available, the skill of your students, the time you have available, and other factors, the course you set up may vary. Below is one example of a course that could incorporate some of the skills learned in Bicycle Skills 1.

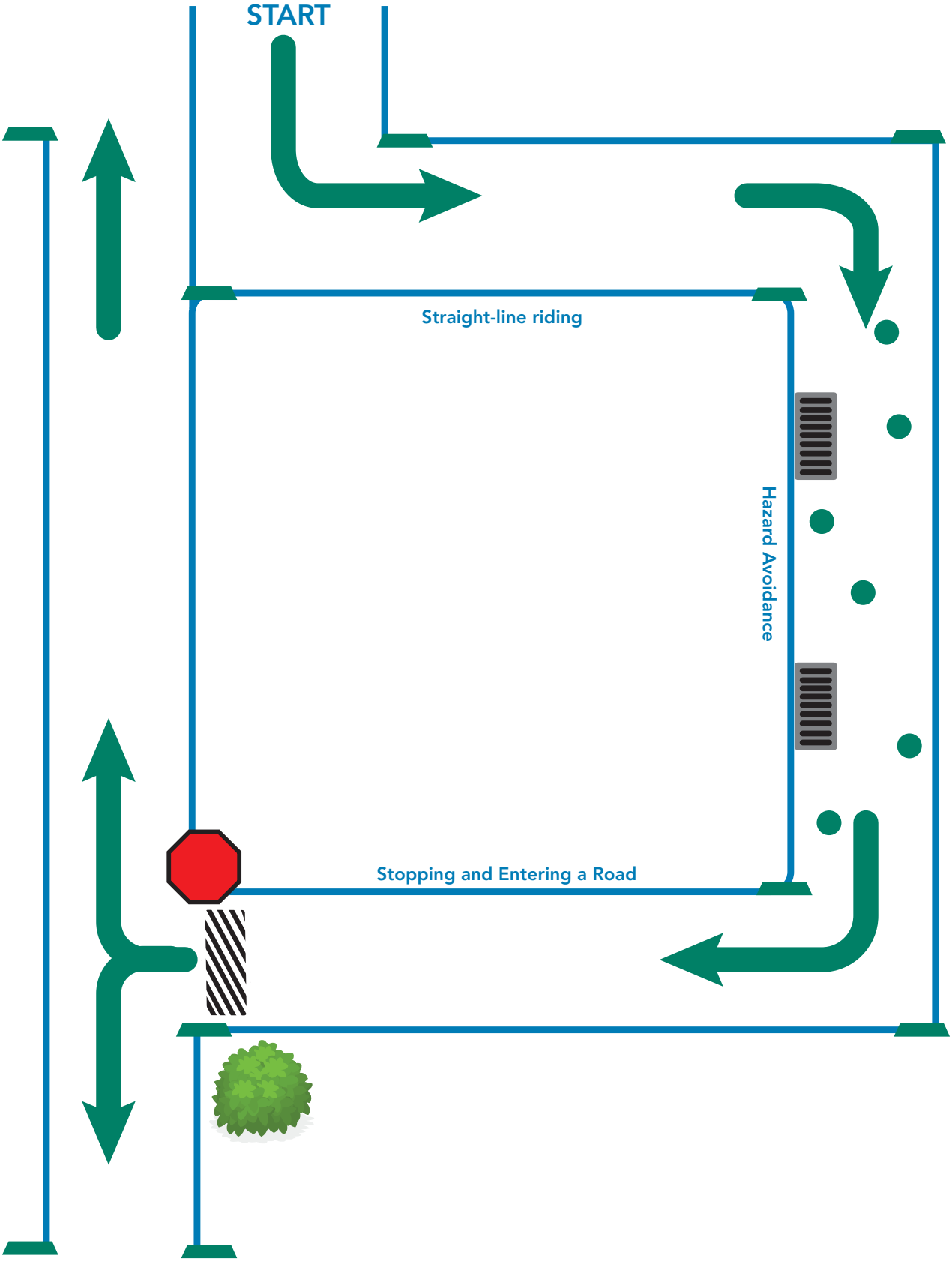
Prerequisites: *Bicycle Skills 1*

Material/Equipment: Rope/chalk to make lines, cones, grates/polys spots/mock hazards, stop sign, optional visual barrier.

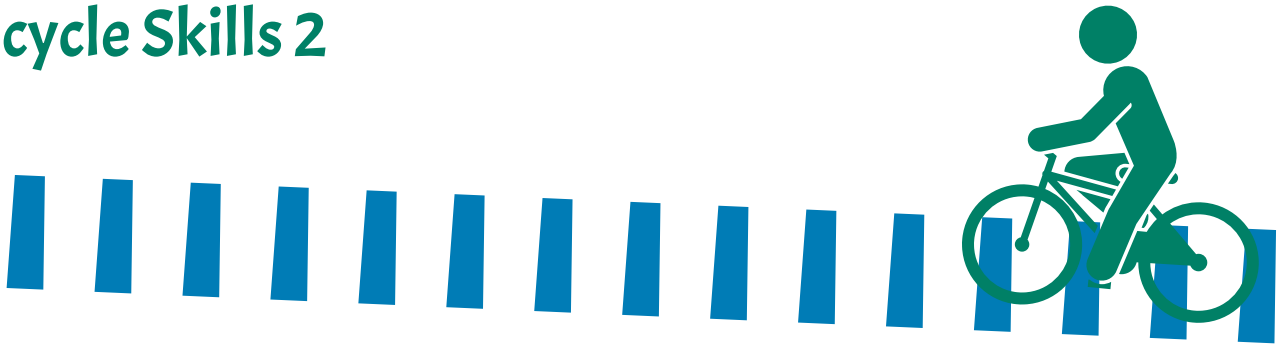
Set-up: Since you will be setting up multiple stations, you will need a large area that can safely accommodate multiple stations set up at once. The sample set-up below incorporates four skills: Straight-line riding, Hazard Avoidance, Stopping, and Entering a Roadway.

Instructor: Have students begin at the START, and go through the course by riding in a straight line, then practicing hazard avoidance, and finally properly stopping at a stop sign. You may choose to use a visual barrier (e.g., bush, fence, parked vehicle sign) to have students walking out to the edge of the visual barrier and performing the search again before entering the roadway. Depending on the space you have available, you may instruct the students to make a right or left turn.

Note: Since the stopping portion of this course requires students to stop, perform a search, and potentially move to the edge of a visual barrier, students may get bunched up at this point. To avoid this, make sure to space students out enough so that as one student is leaving the stop station, the next student arrives shortly after.


START
Straight-line riding
Hazard Avoidance
Stopping and Entering a Road

Bicycle Skills 2



BACKGROUND INFORMATION

Bicycle Skills 2 builds on *Bicycle Skills 1* in that it further develops balance and bicycle handling/control, but adds more complex traffic skills such as hazard avoidance, scanning, and turning. For more advanced skills see *Bicycle Skills 3* later in the bicycle lessons.

Note: Students must wear a properly fitted helmet and use the appropriate bicycle size before doing any on-bike skills.

Students should be able to ride a bicycle. If some do not know how, or are not skilled enough, you have a few options. First, you may have them ride through skills on a balance bike (bicycle without pedals). If you do not have a balance bicycle, you can remove the pedals from a standard bicycle and lower the seat all the way down so the student is able to have both feet flat on the ground when sitting. You could also have the students use scooters if you have access to any.

Students should go through each individual station at least three times, or until they are capable of performing the skill.

Prerequisites
Helmet Fit, Bicycle Fit, ABC Quick Check and *Bicycle Skills 1* (see each activity for specific prerequisite skills)

Objectives
See each activity for specific objectives.

SLALOM

Background Information: When bicycling, it is important to maintain control of your bicycle and be able to steer around obstacles (e.g., debris, drain grates, etc.). This station also helps develop the skill of judging distance while maneuvering.

Prerequisites: Students should be comfortable riding a bicycle in a straight line (*Straight Line Riding*) as well as maneuvering in a narrower space (*Narrowing Lane*).

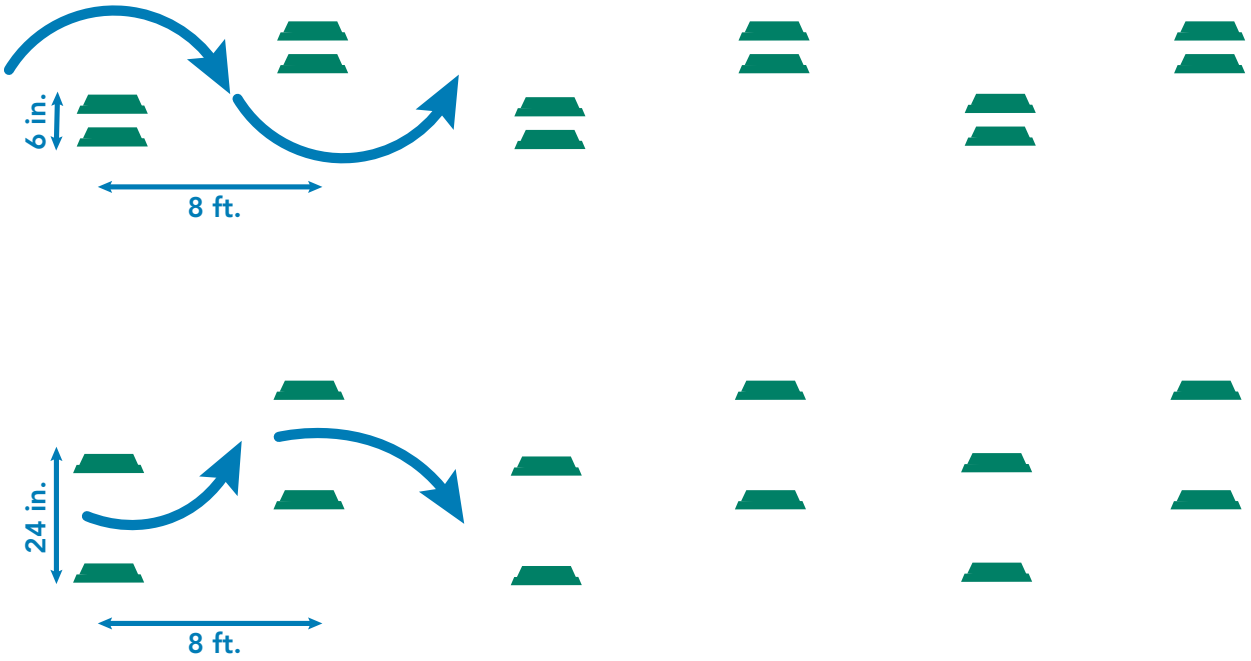
Objectives: Students will be able to ride in a controlled manner while steering around obstacles in their lane.

Material/Equipment: Bicycles and helmets, cones (marker/spot cones) or poly spots

Note: Students must wear a properly fitted helmet and use the appropriate bike size (See *Helmet Fit* and *Bike Fit* activities).

Set-up: Large open area such as a field, basketball court(s), or secured parking lot. Make a straight line with the marker/spot cones or poly spots with eight feet between. Depending on the ability of your students, you may give more or less than eight feet between cones. Then, alternate cones side to side with six inches for the first set-up. Make a start line about 15-20 feet before this skill to give students space to build up some speed. Using marker/spot cones or poly spots for bicycle stations helps reduce the risk of crashes compared to using larger cones.

Instructor: For the first set-up, instruct students to ride around the sets of cones. For the second set up, alternate cones side to side with 24 inches between and instruct students to ride between the sets of cones. The students shouldn't hit any cones/poly spots, and should weave alternately between left and right. It can be helpful to use chalk to draw arrows of the path the students should take to help them visualize where to go.



ROCK DODGE/STEER AROUND

Background Information: Rock dodging is fundamental to defensive riding and can be a difficult maneuver to learn. This is an advanced skill taught as an emergency maneuver to avoid hazards (rocks, road debris, etc.) when there is not time to scan behind and steer around the hazard. Students may be hesitant at first to quickly turn their handlebars, but gradually, and with practice, they can learn the technique "snap" (left) "snap" (right/back straight). As seen below, it is recommended to start off teaching a steer around technique, then progressing to the more advance rock dodge if the students have the ability.

Prerequisites: *Straight Line Riding, Narrowing Lane, Slalom, Hazard Avoidance*

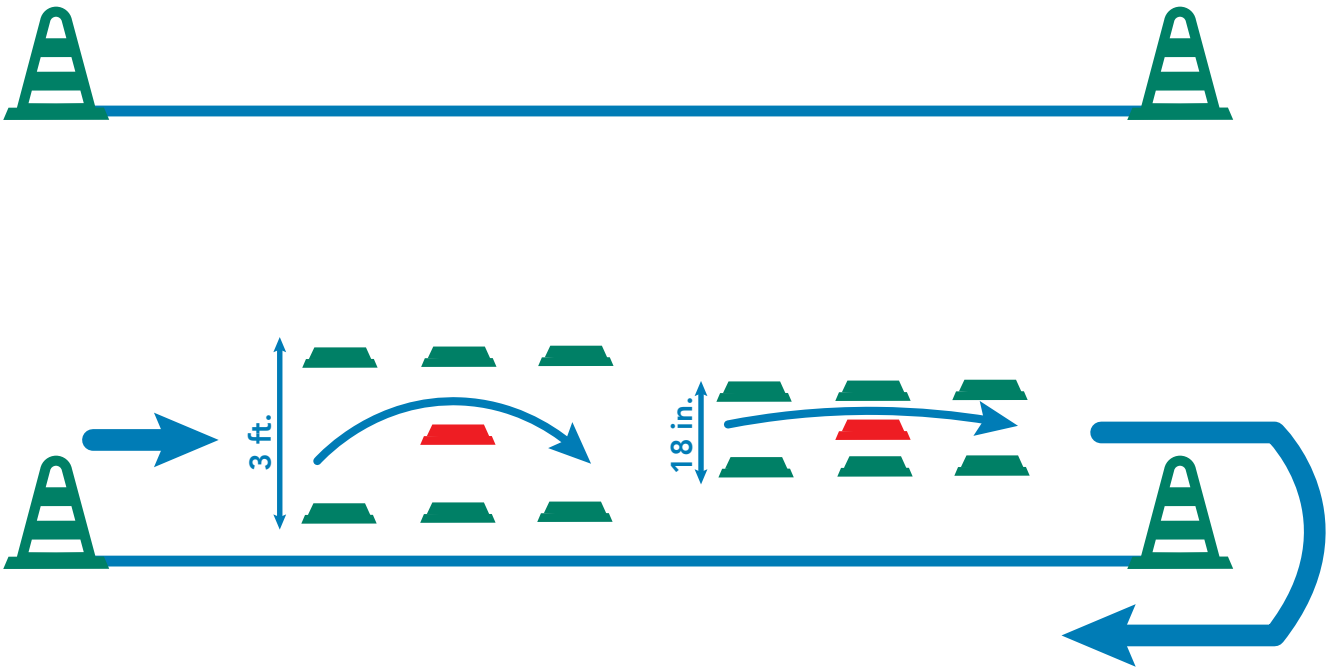
Objectives: Students will be able to ride within a lane in a controlled manner while avoiding hazards in their path.

Material/Equipment: Bicycles and helmets, cones (spot/marker), tennis ball halves, or poly spots. You may want a different color cone/poly spot for the "rock" to make it stand out.

Note: Students must wear a properly fitted helmet and use the appropriate bike size (See *Helmet Fit* and *Bike Fit* activities).

Set-up: Large open area such as a field, basketball court(s), or secured parking lot. Set the cones/poly spots up as in the illustration below with the first rock dodge being three feet wide with the "rock" in the middle. Make a start line about 15-20 feet before this skill to give students space to build up some speed. You may set up multiple lanes (as seen in other drills such as *Stopping* and *Snail/Slow Race*) if your class is large. Once students are capable of dodging the rock in the three foot wide station, adjust the cones/poly spots/tennis ball halves to be 2 feet, and eventually 18 inches wide. For more practice, you may also set up a few rock dodges in a row. It can be helpful to use chalk to draw arrows of the path the students should take to help them visualize where to go.

Instructor: Since the Rock Dodge skill is more advanced, it is best to start off with students practicing a steer around technique. Using the first set-up (three feet wide), instruct students to ride through the rock dodge drill and steer around the rock in the middle. Once students are capable of steering around the rock in the first set up, adjust the cones/poly spots/tennis ball halves to be two feet wide (or 18 inches depending on the skill of the students) so the students have less room to steer around the hazard. The next step of this skill adds the more advanced technique of the rock dodge skills (snap, snap). Show this technique in slow motion, walking the bicycle through the "snaps." As you approach the rock in each set-up, right before the front tire hits the object, snap the handlebar left, then snap it back straight. Next, demonstrate the dodge, riding slowly and identifying what is taking place. Students will see that the "snap, snap" technique causes the front tire to miss the object, while being able to maintain a straight line. The back tire will sometimes hit the object, but the main object is to miss it with the front tire.



TRAFFIC MIX (RIDING BICYCLES)

Background Information: This activity allows the instructor to quickly assess the skills of all the students in a controlled environment. It places the students in situations that allow for their discovery of why traffic rules and laws are important. The intent of this activity is that students move freely about without touching each other or leaving the established boundaries.

Prerequisites: *Straight Line Riding, Slalom, Hazard Avoidance, Tight Turn and Signaling*

Objectives: Students will be able to ride their bicycle within a defined area, stop on command and discover the need for traffic rules.

Material/Equipment: Bicycles, helmets, cones, ropes or chalk

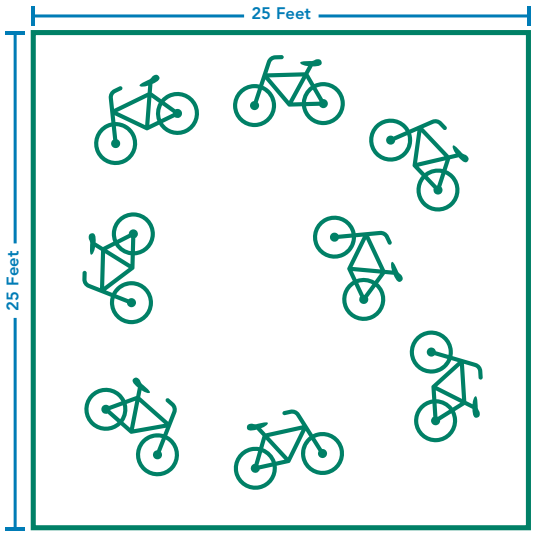
Note: Students must wear a properly fitted helmet and use the appropriate bike size (See *Helmet Fit* and *Bike Fit* activities).

Set-up: Large open area such as a field, basketball court(s), or secured parking lot. Create a box with the cones and rope/chalk at least 40 x 40 feet (depending on the number of students).

Instructor: Call all the students to the center of the defined area, identify the boundaries, introduce how you will signal for them to stop (whistle, voice, megaphone), and tell them that they will begin moving slowly in any direction within the boundaries, being careful NOT to touch or run into anyone or their bicycles. When conducting this activity for the first time, have them walk their bicycles first (as seen in the *Traffic Mix-Walking Bikes* station).

Ask students to line up on the outside corners or edges of the boundaries and allow them to enter the area one or two at a time, moving in any direction, and gradually building up the "traffic mix." Remind them to be cautious and not touch each other. (Remove students that appear to demonstrate inability to follow your instructions and have them wait outside the boundaries as "traffic cops". Not only is it a great management tool but it will also help them recognize why certain actions are hazardous to self and others.)

When the "traffic" is getting difficult to flow, stop the class and ask them why. What would make it easier to keep moving? Should there be rules for traffic? What should the rules be? Now proceed to have students move within the boundaries, following "the rules" of traffic by circulating in a counter clockwise pattern (staying on the right) and stopping on command.



SCANNING

Background Information: A leading cause of bicycle crashes for young bicyclists is making left turns or swerving into traffic without looking back (failing to yield right of way). Many bicyclists have a problem with looking back (scanning) and keeping their bicycle moving in a straight and predictable manner. This station will help bicyclists become more confident and safer, by being able to scan for traffic over their left shoulder in order to be aware of their surroundings and/or position for turns.

Prerequisites: Students should be comfortable riding a bicycle in a straight line (*Straight Line Riding activity*) as well as good balance and control of their bicycle (*Narrowing Lane* and *Slalom* activities)

Objectives: Students will be able to scan for traffic over their left shoulder without swerving in the lane.

Material/Equipment: Bicycles and helmets, Cones, Chalk or rope, Vehicle Signs or something students can identify when scanning (e.g., colored shapes).

Note: Students must wear a properly fitted helmet and use the appropriate bike size (See *Helmet Fit* and *Bike Fit* activities).

Set-up: Large open area such as a field, basketball court, or secured parking lot. With chalk or rope, make two parallel lines to create a lane similar to what can be found on a real road (e.g., 10-12 feet wide). Depending on the space you have available, the lane can vary in length, but should be at least 40 feet so that students can practice maintaining a straight line while scanning. Since bicyclists must generally ride to the right of a lane, use chalk or another rope to create a two to three-foot-wide lane.

Instructor: Before the students do this station, it is important for them to understand their field of view and how to eventually scan on a bicycle without swerving.

Field Of View:

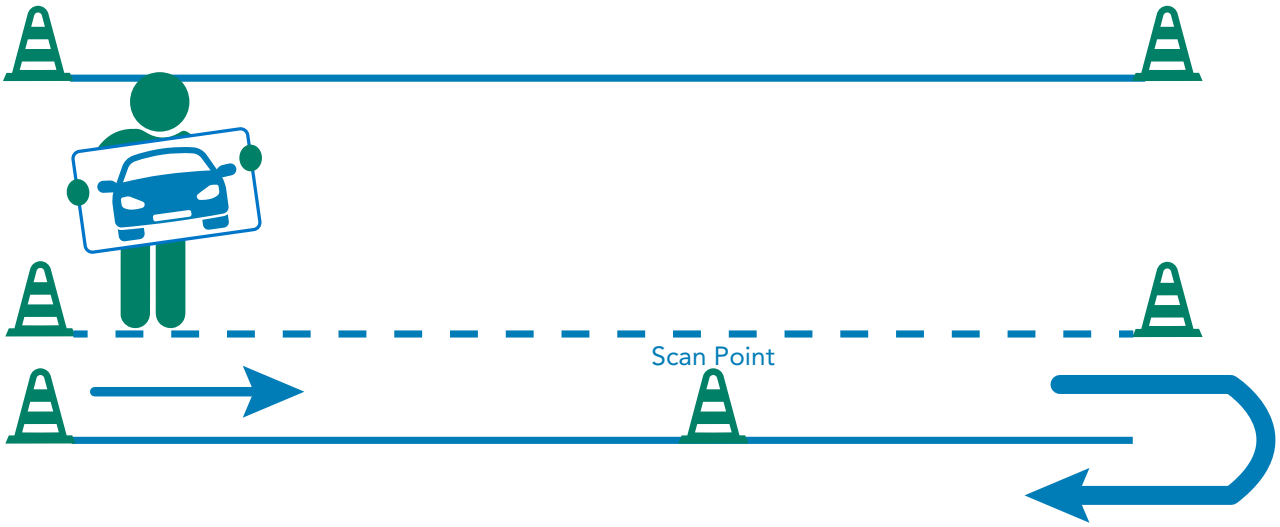
- Stand, looking straight head, with arms outstretched at shoulder height. With head held perfectly still, slowly move outstretched arms out to sides and back to find peripheral vision. Identify objects in view.
- With arms extended at shoulder height, turn head through full range of motion. Isolate the movement; arms and shoulders are still; the head is rotating. Identify objects in view and notice physical discomfort.
- With arms hanging comfortably, knees slightly bent, and feet firmly planted, look back. Allow the hips, torso, and neck to twist.
- Look left and right. Identify objects in view directly behind you. Discuss factors that affect the ability to look back and identify.

Stationary Scan:

- Students are grouped with partners.
- One partner holds the bicycle handlebars stationary in front while their partner stands over the bicycle as if they were riding. Do not have the students sit on the seat because their partner cannot likely hold the bike upright.
- The partner holding the handlebars tells the rider to scan.
- The bicyclist looks over their left shoulder and verbally identifies an object behind them (instructor holding objects or pictures such as football, kite, car sign).
- The objective for the bicyclist is to keep their balance and bicycle straight.
- The students repeat the exercise after switching partners.
- Once the students are confident with the stationary scanning, they can try the active scanning.

Active Scanning Station

- Using the lane set-up, stand in a stationary location holding a mock car sign. Instruct the students to ride through the lane and the person holding the sign calls out "Scan" or "What's behind you" and puts the mock car sign either face up (for which the bicyclists verbally call out "CAR") or face down (the bicyclists identify this by calling out "NO CAR"). You may also place a cone at a certain point for students to scan instead of calling out "Scan." After going through a few times, students should be able to give the correct verbal answer while maintaining a straight line.
- Once students are capable of scanning and maintaining a straight line, have them practice taking one hand off the handlebar (left and right) which will help prepare them for lane positioning and signaling turns in later stations.



TIGHT TURN AND SIGNALING

Background Information: Signaling turns are important skills bicyclists must do legally, but are also courteous and help communicate intentions to others. This station teaches how to maintain control and balance of a bicycle while signaling turns, then going through turns.

Prerequisites: *Straight Line Riding, Narrowing Lane, Slalom, Stopping*

Objectives: Students will be able to maintain control and balance through tight turns. Students will be able to use proper hand signals in order to be more predictable riders.

Material/Equipment: Bicycles and helmets, Cones, Chalk or rope

Note: Students must wear a properly fitted helmet and use the appropriate bike size (See *Helmet Fit* and *Bike Fit* activities).

Set-up: Large open area such as a field, basketball court, or secured parking lot. Using cones, create at least a three to four-foot-wide course that goes straight for 20-25 feet, then turns right 180 degrees to another 20-25-foot straight lane, and finally turns left 180 degrees for the final straight line. Once cones are laid out, use chalk or rope to outline the lanes. You may also teach signaling using a set-up like *Straight-line Riding*.

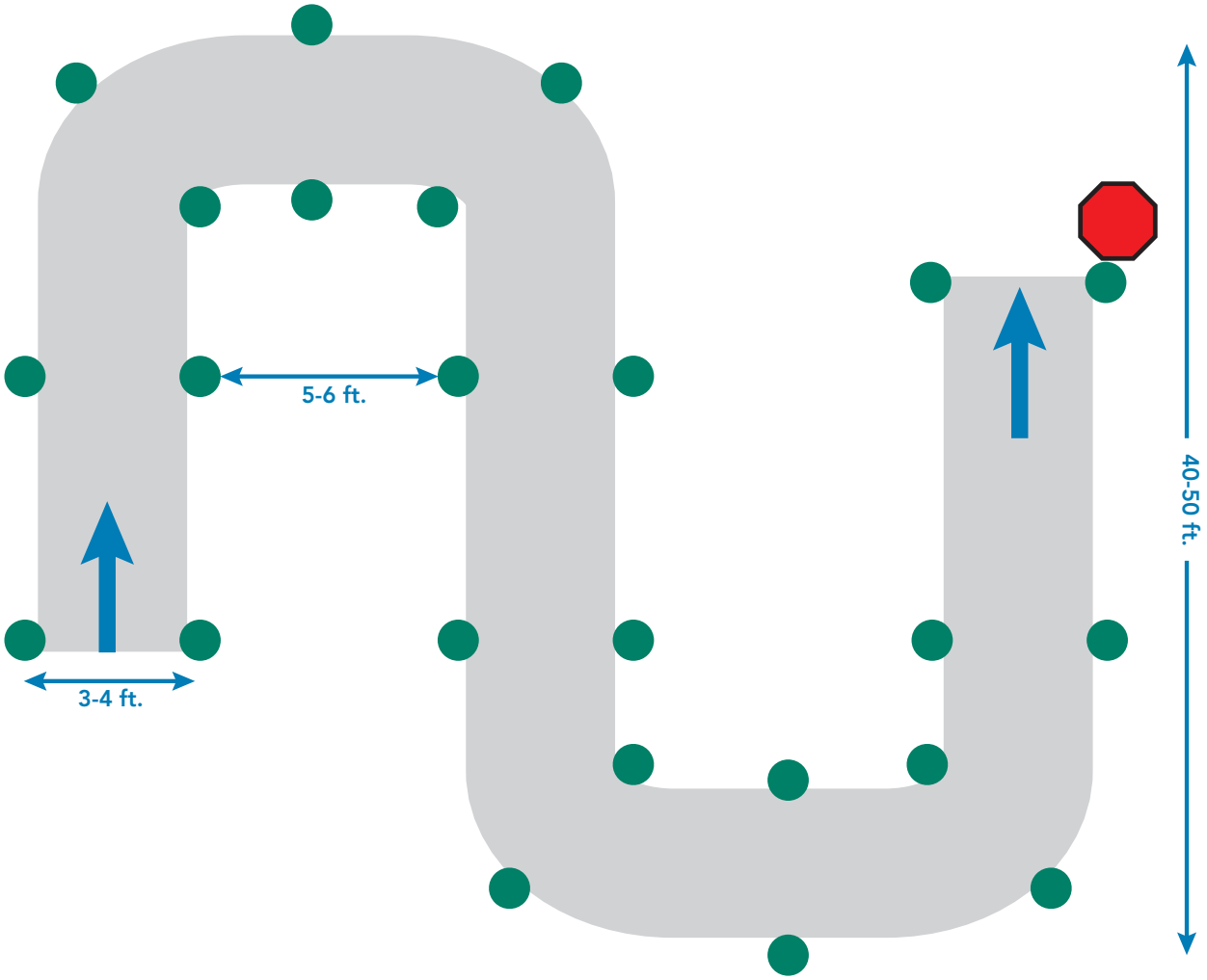
Instructor: Demonstrate and, while sitting on their bicycles, have students practice the hand signal for a right turn (two options: left arm extended with 90-degree bend upright or right arm and hand straight

out to the right), a left turn (left arm and hand straight out to the left), and stopping (left arm extended with 90-degree bend downward). Emphasize to students the importance of signaling their intentions by pointing the way they want to go and holding the signal long enough for a motorist behind them to know what they are doing. Instruct students to call out their signals ("right turn," "left turn, and "stopping").

Instruct students to ride through the lane without going outside the lines or putting their foot down. Once students are comfortable riding through the course, instruct them to signal their turns as well as practice stopping at the end of the course (see below).

Note: If some students are not able to take their hands off the handlebars to signal, tell them to verbalize their turns. It is better to maintain control of the bicycle than to try to signal and potentially crash.

LEFT **RIGHT** **RIGHT** **SLOWING/ STOPPING**



SKILLS COURSE FOR BICYCLE SKILLS 2

Background information: Once students are capable of performing individual skills it is helpful to have them go through a skills course where they practice several skills together. This allows students to go through one skill after another while practicing previous skills. Depending on the space you have available, the skill of your students, the time you have available, and other factors, the course you set up may vary. Below is one example of a course that could incorporate some of the skills learned in Bicycle Skills 1 and 2.

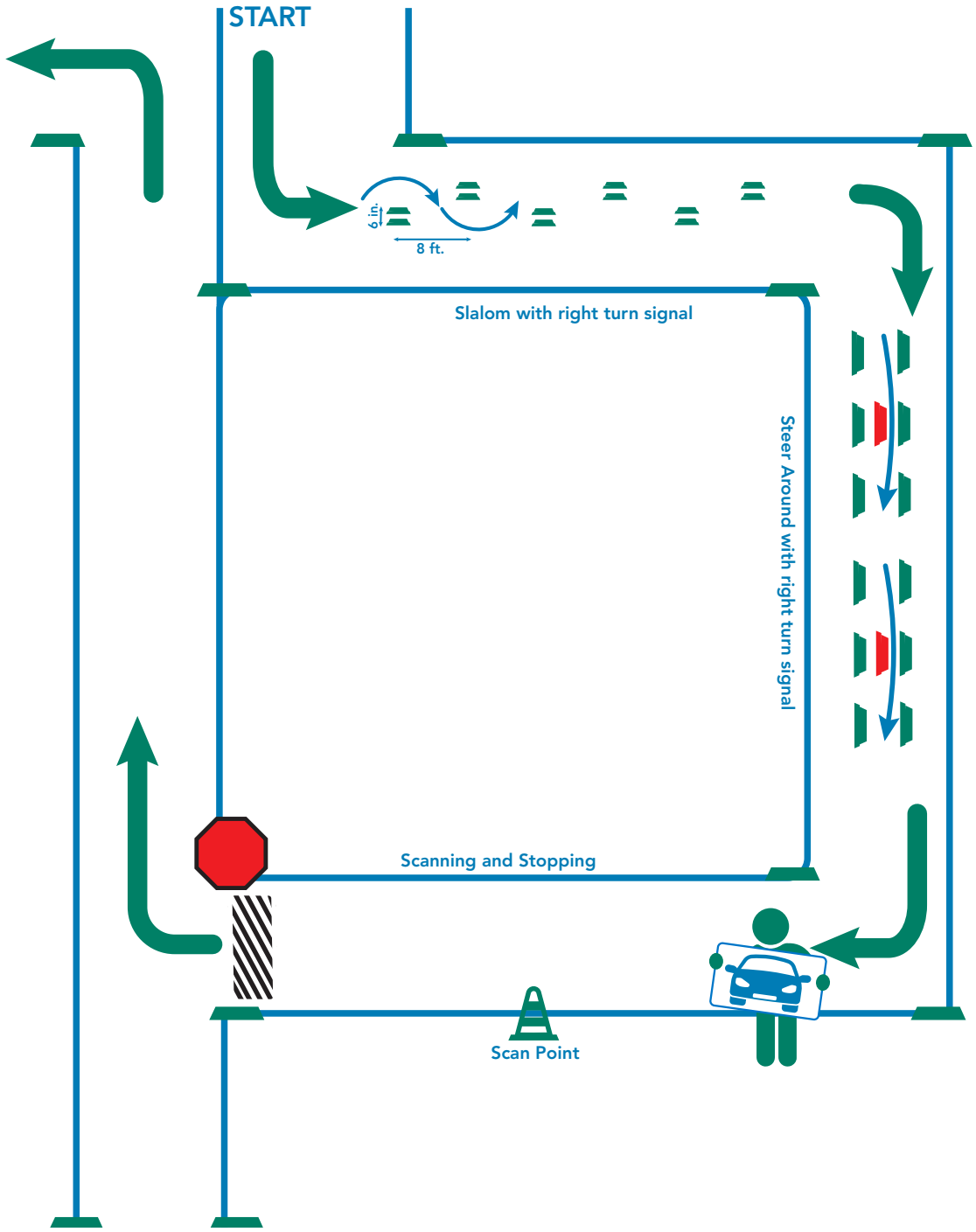
Prerequisites: *Bicycle Skills 1 and 2*

Material/Equipment: Rope/chalk to make lines, marker/spot cones for slalom and steer around, stop sign, car sign for scanning.

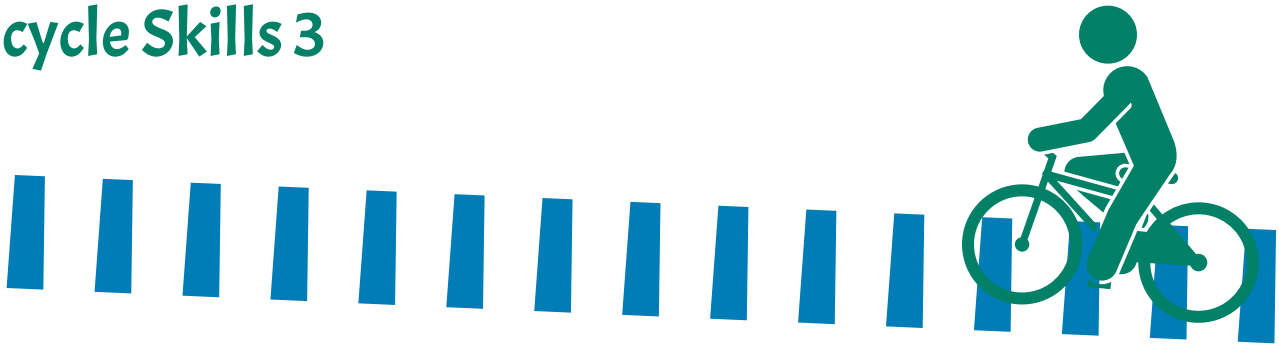
Set-up: Since you will be setting up multiple stations, you will need a large area that can safely accommodate multiple stations set up at once. The sample set-up below incorporates at least five skills: Slalom, Steer Around, Scanning, Stopping, and Signaling (three opportunities for right turns and one opportunity for a left turn).

Instructor: Have students begin at the START, and go through the course by riding through the slalom, signaling a right turn, going through the steer around, making a second right turn, scanning, practicing a stop and a third right turn, and finally practicing a left turn.

Note: Since the stopping portion of this course requires students to stop and perform a search, students may get bunched up at this point. To avoid this, make sure to space students out enough so that as one student is leaving the stop station, the next student arrives shortly after.



Bicycle Skills 3



BACKGROUND INFORMATION

Bicycle Skills 3 builds on *Bicycle Skills 1 and 2* in that it further develops bicycle handling/control and basic traffic skills, but adds more complex traffic skills such as yielding and road position for turning.

Note: Students must wear a properly fitted helmet and use the appropriate bicycle size before doing any on-bike skills.

Students should be able to ride a bicycle. If some do not know how, or are not skilled enough, you have a few options. First, you may have them ride through skills on a balance bike (bicycle without pedals). IF you do not have a balance bicycle, you can remove the pedals from a standard bicycle and lower the seat all the way down so the student is able to have both feet flat on the ground when sitting. You could also have the students use scooters if you have access to any.

Students should go through each individual station at least three times, or until they are capable of performing the skill.

Prerequisites
Helmet Fit, Bicycle Fit, ABC Quick Check, Bicycle Skills 1 and Bicycle Skills 2 (see each activity for specific prerequisite skills)

Objectives
See each activity for specific objectives.

FIGURE 8

Background Information: Traffic frequently demands that a bicyclist change direction, so this station teaches how to shift balance and change direction. Students can also practice yielding if multiple students ride in the station at the same time.

Prerequisites: *Straight Line Riding, Narrowing Lane, Slalom, Tight Turn and Signaling.*

Objectives: Students will be able to maintain balance and control of their bicycle while turning and changing directions. If multiple students ride in the station at the same time, they will also be able to yield to other students (drivers).

Material/Equipment: Bicycles and helmets, Cones (marker/spot cones) or poly spots

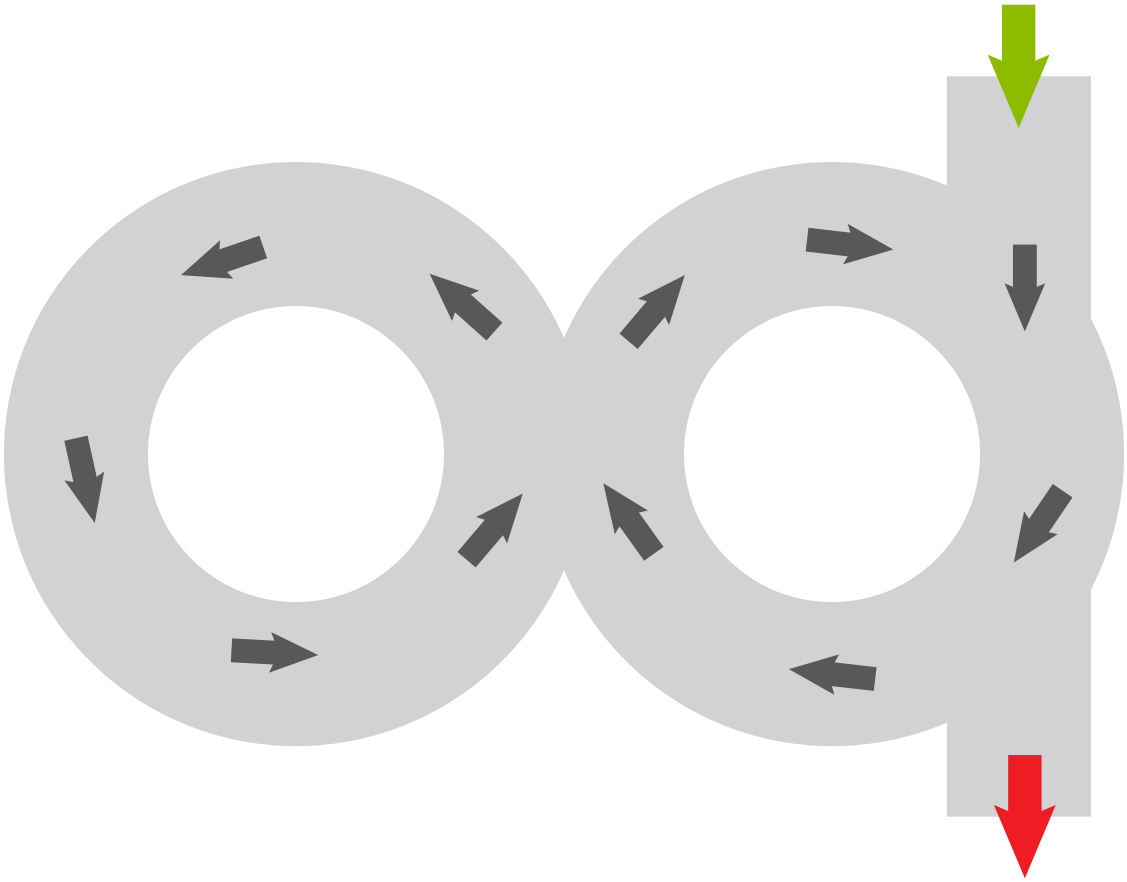
Note: Students must wear a properly fitted helmet and use the appropriate bike size (See *Helmet Fit* and *Bike Fit* activities).

Set-up: For a figure 8 course with a 2.5 foot lane, create two sets of circles. Each circle is made up of a 10-foot diameter inner circle and 15-foot diameter outer circle. Mark an entrance at one end of the figure 8. An exit can be same end or other end. It is helpful to mark the route with chalk arrows. Depending on the ability of your students, you may make the lane and Figure 8 station larger to accommodate all skill levels.

Instructor: Discuss the difference between yield and stop. Discuss the concept of yielding, even without a sign. Walk students through the course first so they understand direction of flow and yielding.

Note: Younger or less experienced students should ride through the station without others.

Instruct the students to ride through the figure 8, following the arrows, and to exit after going around the figure 8 for a predetermined number of times. The more times students go around the figure 8, the more skilled they will become with making sudden changes of direction. Once students are capable of going through the course on their own, you may add more than one student so they can practice yielding.



ROAD POSITION, SIGNALING AND TURNING

Background Information: It is important that children learn where to position themselves in traffic when making left and right turns or traveling straight through an intersection. This is an important part of being a predictable bicyclist. Signals are given out of common courtesy and necessity. The main function of the signal is to let those with whom you share the road know where you intend to go. Using the proper hand signals to communicate with motorists is a significant part of bicycle safety. This skill should only be practiced once the students are capable of maintaining a straight line with one hand off the handlebar.

Students will learn where to position themselves on the road when going straight through an intersection or when turning right and left. Students will also further practice the proper hand signals for right and left turns.

Prerequisites: *Straight Line Riding, Stopping, Tight Turn and Signaling, Scanning*

Objectives: Students will be able to scan, signal, and demonstrate proper road positioning for turning right, left, or going straight through an intersection.

Material/Equipment: Bicycles/helmets, Cones, Ropes/chalk, Poly Spots (or other method to show various paths for lane positioning).

Note: Students must wear a properly fitted helmet and use the appropriate bike size (See *Helmet Fit* and *Bike Fit* activities).

Set-up: Large open area such as a field, basketball court, or secured parking lot. See set-up for the single lane *Stopping* drill. With chalk or rope, make two parallel lines to create a lane similar to what can be found on a real road (e.g., 10-12 feet wide). Depending on the space you have available, the lane can vary in length, but should be at least 40 feet so that students can scan and position themselves before stopping. At the end of the lane, use chalk to create a stopping "zone" three feet from the end of the lane (this will be used when incorporating the stop into the lane positioning drill). Using poly spots, colored chalk, or other flat markings, lay out three various lane positions like the illustration. The path of blue poly spots would be one option if the bicyclists wanted to position for a right turn. The path of the green poly spots would be for when the bicyclist wanted to position for riding straight through an intersection. The path of the purple poly spots would be for when a bicyclist wanted to position for a left turn.

Instructor: Demonstrate and, while sitting on their bicycles, have students practice the hand signal for a right turn (two options: left arm extended with 90-degree bend upright or right arm and hand straight out to the right), a left turn (left arm and hand straight out to the left), and stopping (left arm extended with 90-degree bend downward). Emphasize to students the importance of signaling their intentions by pointing the way they want to go and holding the signal long enough for a motorist behind them to know what they are doing. Practice the verbal (voice) commands "stopping, turning right" or "scanning, turning left."

Note: If some students are not able to take their hands off the handlebars to signal, tell them to verbalize their turns. It is better to maintain control of the bicycle than to try to signal and potentially crash.

Signaling

The first step to teaching proper lane positioning and signaling is for students to practice proper signaling and turning. In addition to signaling, it is important for students to verbalize each step (right turn, left turn, stopping, etc.). See *Tight Turn and Signaling* activity for additional practice with signaling. Since riding straight at an intersection is less complicated, line the students up at the start of the station near the middle of the lane. Instruct them to ride down the middle of the lane and signal their stop. Once stopped, they will look left-right-left again before going forward.

To practice right signaling and turning, line the students up between the right and the middle of the lane. Instruct them to ride down the lane and to signal a right turn, then signal a stop. Once stopped, they will look left-right-left again, and give a right hand signal once more before turning right.

To practice left signaling and turning, line the students up towards the left of the lane. Instruct them to ride down the lane and to signal a left turn, then signal a stop. Once stopped, they will look left-right-left again, and give a left hand signal once more before turning left.

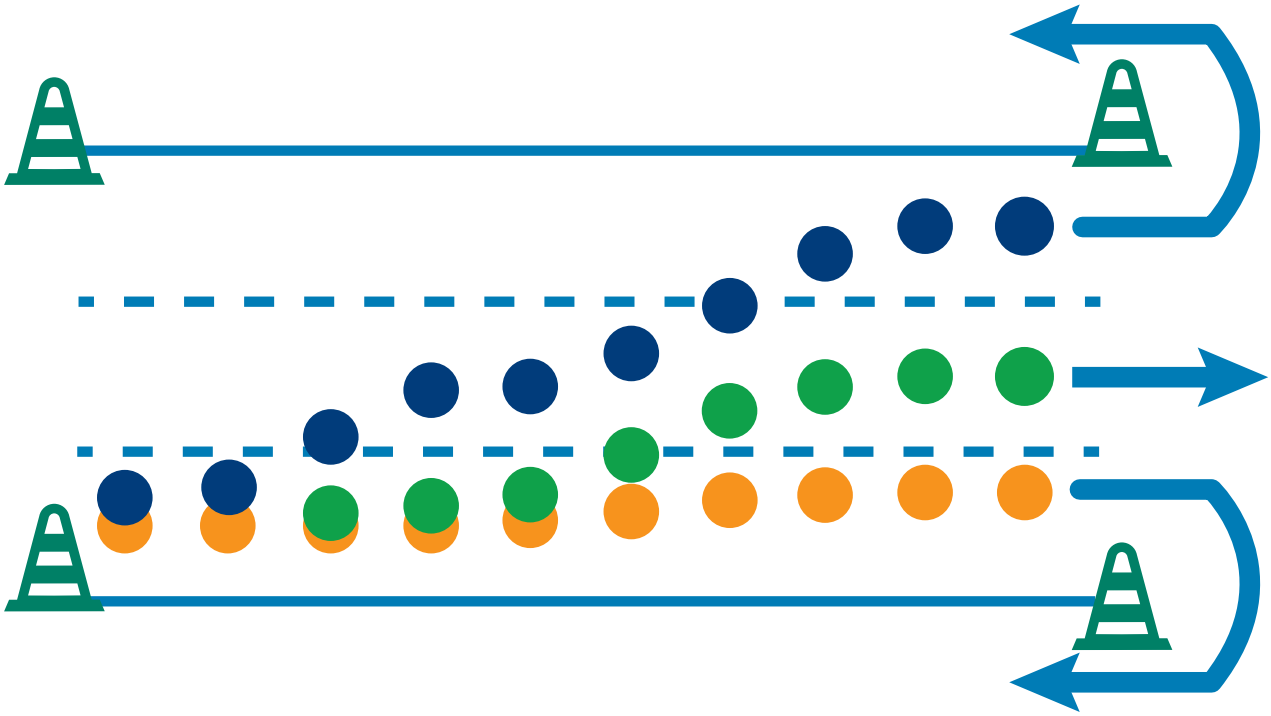
📝***Note:*** If signaling a turn, then signaling a stop is too complicated to start off with, have the students go through this station until they are capable of signaling turns. Once they master signaling turns, incorporate the stopping signal after the turning signal.

Lane Positioning with Signaling

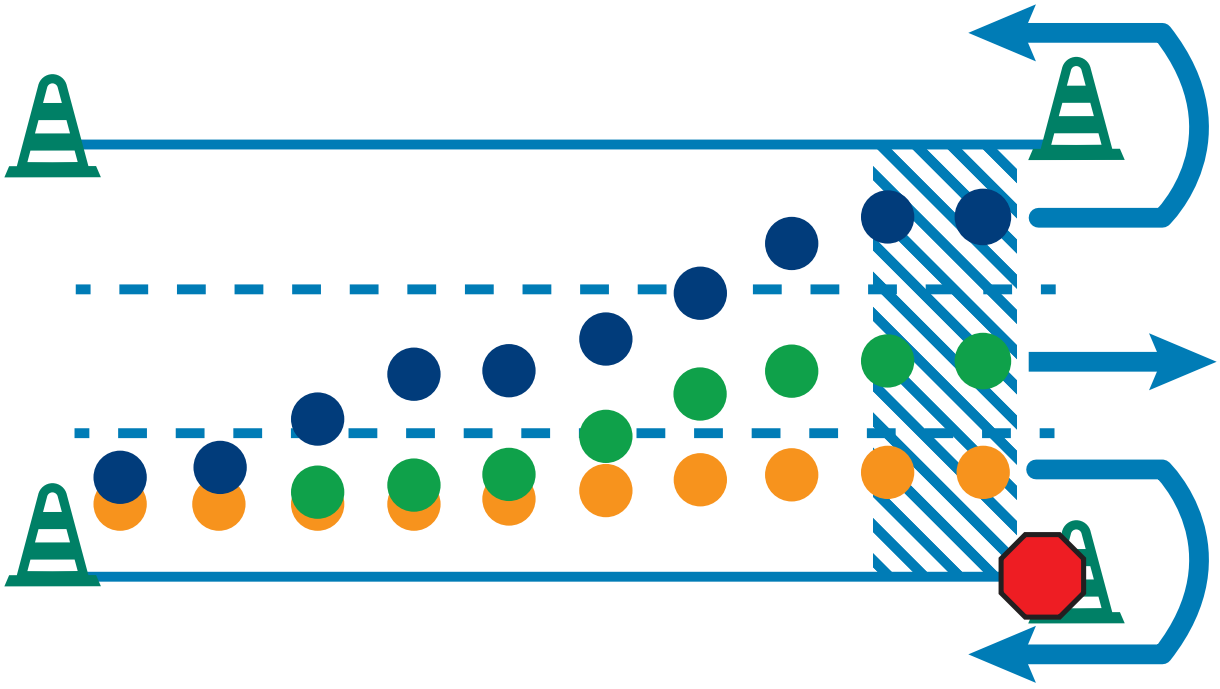
Once students are capable of signaling, it is important to add the skill of lane positioning. Have students line up single file 15-20 feet behind the start of this station so they can build up enough speed. Instruct them what each path of the poly spots represents (Blue = Right Turn, Green = Straight Through, and Purple = Left Turn). It is important to teach this skill progressively, so students will start off simply learning lane positioning, then move to incorporating the stop.

1. For the right turn, they will ride down the lane and signal a right turn at least halfway down the lane. When they get to the end, they will turn right and loop back around to the end of the line.
2. Once they are capable of signaling a right turn, instruct them to ride down the lane following the green poly spots to position for riding straight through an intersection. Since they will be transitioning from riding on the right side of the lane to the middle, they will need to scan behind them, signal left for positioning left, scan again to make sure there is no traffic, and finally position in the middle of the lane (follows path of green poly spots).
3. Finally, once they master scanning, and signaling before moving to the middle of the lane, instruct them to position for a left turn (purple poly spots), by scanning earlier, signaling left, scanning again, and positioning to the middle of the lane. Once there, they scan and signal again before positioning to the left of the lane.
4. After students are capable of scanning and signaling for lane position, add the stop zone and stop sign. Students will lane position as they did before, but now they will also signal a stop and perform the search (look left-right-left again) before going through the intersection. Students will stop at the stop sign, look left, right, left again, then look across the intersection to be sure there is no traffic coming straight through. When clear, give the appropriate hand signal once again before proceeding (left or right).

📝***Note:*** This activity can be continued and practiced the *Intersection* activity by setting up a mock intersection and having students in groups practice all three road positions and turns.



Set-up with stop:



Note: Once students are able to perform the bike skills found in Bike Skills 1, 2, and 3, you may set up a final course similar to Bike Skills Course 1 and 2. However, the next lesson (*Residential Intersection Riding*) incorporates many bike skills in the *Model Intersection Ride* (e.g., straight line riding, stopping, scanning, signaling, turning, yielding, and lane positioning).

Residential Intersection, Riding

BACKGROUND INFORMATION

Being a predictable bicyclist includes knowing when to stop, how to search for traffic, and in what direction to expect traffic. Other important bicycle safety practices include stopping at stop signs, obeying all traffic-control devices, using proper hand signals to communicate with motorists, and proper road positioning. All of these skills are necessary to successfully negotiate intersections.

Objectives
Students will be able understand how to navigate an intersection whether going straight, turning right, or turning left.

Videos
Intersection, Stop; Intersection, Stop Review; Intersection, Straight; Intersection, Straight Review; Intersection, Right; Intersection, Right Review; Intersection, Left; Intersection, Left Review

VIDEO: INTERSECTION, STOP

Guided Discussion:

1. WHAT IS THE FIRST THING YOU NOTICE?
2. WHAT DID YOU SEE THE RIDERS DO?
   Slow down and look back.
3. WHAT DO YOU THINK ABOUT THE RIDERS POSITION IN THE TRAFFIC LANE?
   This is where car drivers can see bicycle riders. This is where car drivers look for traffic.
4. WHAT WERE THE RIDERS LOOKING FOR?
   Vehicle and Pedestrian Traffic.
5. WHAT DID THE RIDERS DO NEXT?
   Look left, look right, look left, and look back.
   POWER PEDAL UP.
6. DID THE RIDERS SEE ANY CARS?
   No moving cars.

When you are riding on the roadway, you are considered to be a vehicle and part of traffic. You have all of the rights and responsibilities of a person driving a car. People walking on the

sidewalk or in the roadway are pedestrians. You must yield to people walking on the sidewalk and in the crosswalk.

VIDEO: INTERSECTION, STOP REVIEW

Guided Discussion:

1. WHAT DID THE RIDERS DO BEFORE ENTERING THE INTERSECTION?
   Power pedal up! The riders looked back, slowed down and looked for traffic.

2. WHY DO YOU THINK THE RIDERS LOOKED LEFT FIRST?
   The closest lane of traffic is on the left.

3. WHY DO YOU THINK THE RIDERS LOOKED LEFT ONCE AGAIN BEFORE CROSSING?
   Always check the closest lane of traffic just before entering the intersection.

4. WHAT DID THE RIDERS DO WHILE MOVING THROUGH THE INTERSECTION?
   The riders continued to look for traffic and select an appropriate travel lane position.

VIDEO: INTERSECTION, STRAIGHT

Guided Discussion:

1. WHAT IS THE FIRST THING YOU NOTICE?

2. WHAT DID YOU SEE THE RIDER DO?
   Slow down and look back.

3. WHAT DO YOU THINK ABOUT THE RIDER'S POSITION IN THE TRAFFIC LANE?
   This is where car drivers can see bicycle riders. This is where car drivers look for traffic.

4. WHAT WAS THE RIDER LOOKING FOR?
   Vehicles and Pedestrian Traffic.

5. WHAT DID THE RIDER DO NEXT?
   Look left, look right, look left, look back.

6. DID THE RIDER SEE ANY CARS?
   No moving cars.

7. WHAT DID THE RIDER DO WHILE MOVING THROUGH THE INTERSECTION?
   The rider continued to look for traffic and selects an appropriate travel lane position.

Note: Even if there is no stop sign at an intersection, it is important to be aware of your surroundings look for traffic coming from all directions. This goes for the following videos where the bicyclists does not need to stop at the intersection.

VIDEO: INTERSECTION, STRAIGHT REVIEW

Guided Discussion:

1. WHAT DID THE RIDER DO BEFORE ENTERING THE INTERSECTION?
   Power pedal up! The rider looked back, slowed down and looked for traffic.

2. WHY DO YOU THINK THE RIDER LOOKED LEFT FIRST?
   The closest lane of traffic is on the left.

3. WHY DO YOU THINK THE RIDER LOOKED LEFT ONCE AGAIN BEFORE CROSSING?
   Always check the closest lane of traffic just before entering the intersection.

4. WHAT DID THE RIDER DO WHILE MOVING THROUGH THE INTERSECTION?
   The rider continued to look for traffic and selects an appropriate travel lane position.

When you are riding on the roadway, you are considered to be a vehicle and part of traffic. You have all of the rights and responsibilities of a person driving a car. People walking on the sidewalk or in the roadway are pedestrians. You must yield to people on the sidewalk and in the crosswalk.

VIDEO: INTERSECTION, RIGHT

Guided Discussion:

1. WHAT IS THE FIRST THING YOU NOTICE?

2. WHAT DID YOU SEE THE RIDER DO?
   Slow down and look back.

3. WHAT DO YOU THINK ABOUT THE RIDER'S POSITION IN THE TRAFFIC LANE?
   This is where car drivers can see bicycle riders. This is where car drivers look for traffic.

4. WHAT WAS THE RIDER LOOKING FOR?
   Vehicles and Pedestrian Traffic.

5. WHAT DID THE RIDER DO NEXT?
   (Signal) look left, look right, look left, look back.

6. DID THE RIDER SEE ANY CARS?
   No moving cars.

7. WHAT DID THE RIDER DO WHILE MOVING THROUGH THE INTERSECTION?
The rider continued to look for traffic and selects an appropriate travel lane position.

VIDEO: INTERSECTION, RIGHT REVIEW

Guided Discussion:

1. WHAT DID THE RIDER DO BEFORE ENTERING THE INTERSECTION?
Power pedal up! The rider looked back, slowed down and looked for traffic.

2. WHY DO YOU THINK THE RIDER LOOKED LEFT FIRST?
The closest lane of traffic is on the left.

3. WHY DO YOU THINK THE RIDER LOOKED LEFT ONCE AGAIN BEFORE CROSSING?
Always check the closest lane of traffic just before entering the intersection.

4. WHAT DID THE RIDER DO WHILE MOVING THROUGH THE INTERSECTION?
The rider continued to look for traffic and selects an appropriate travel lane position.

When you are riding on the roadway, you are considered to be a vehicle and part of traffic. You have all of the rights and responsibilities of a person driving a car. People walking on the sidewalk or in the roadway are pedestrians. You must yield to people on the sidewalk and in the crosswalk.

VIDEO: INTERSECTION, LEFT

Guided Discussion:

1. WHAT IS THE FIRST THING YOU NOTICE?

2. WHAT DID YOU SEE THE RIDER DO?
Slow down and look back.

3. WHAT DO YOU THINK ABOUT THE RIDER'S POSITION IN THE TRAFFIC LANE?
This is where car drivers can see bicycle riders. This is where car drivers look for traffic.

4. WHAT WAS THE RIDER LOOKING FOR?
Vehicles and Pedestrian Traffic.

5. WHAT DID THE RIDER DO NEXT?
(Signal) look left, look right, look left, look back.

6. DID THE RIDER SEE ANY CARS?
No moving cars.

7. WHAT DID THE RIDER DO WHILE MOVING THROUGH THE INTERSECTION?
The rider continued to look for traffic and selects an appropriate travel lane position

VIDEO: INTERSECTION, LEFT REVIEW

Guided Discussion:

1. WHAT DID THE RIDER DO BEFORE ENTERING THE INTERSECTION?
Power pedal up! The rider looked back, slowed down and looked for traffic.

2. WHY DO YOU THINK THE RIDER LOOKED LEFT FIRST?
The closest lane of traffic is on the left.

3. WHY DO YOU THINK THE RIDER LOOKED LEFT ONCE AGAIN BEFORE CROSSING?
Always check the closest lane of traffic just before entering the intersection.

4. WHAT DID THE RIDER DO WHILE MOVING THROUGH THE INTERSECTION?
The rider continued to look for traffic and selects an appropriate travel lane position.

When you are riding on the roadway, you are considered to be a vehicle and part of traffic. You have all of the rights and responsibilities of a person driving a car. People walking on the sidewalk or in the roadway are pedestrians. You must yield to pedestrians on sidewalks and in the crosswalk.

MODEL INTERSECTION RIDE

Background Information: Being a predictable bicyclist includes knowing when to stop, how to search for traffic, and in what direction to expect traffic. Other important bicycle safety practices include stopping at stop signs, obeying all traffic-control devices, using proper hand signals to communicate with motorists, and proper road positioning. All of these skills are necessary to successfully negotiate intersections. The *Model Intersection Ride* allows students to practice all the skills they learned during previous individual stations.

Prerequisites: *Straight Line Riding, Stopping, Tight Turn and Signaling, Figure 8, Lane Positioning and Signaling*

Objectives: Students will apply (what they have learned thus far) straight line riding, stopping tight turn and signaling, and lane positioning and signaling, in order to navigate an intersection. Students will be able to yield and make turns and ride through an intersection in a predictable manner.

Material/Equipment: Cones, Rope or Chalk, Four stop signs

Note: Students must wear a properly fitted helmet and use the appropriate bike size (See *Helmet Fit* and *Bike Fit* activities).

Set-up: Use rope, chalk, chalk spray, etc. to outline the borders of the intersection and stop bars. The "road" should be at least 50-60 feet long and 20 feet wide to allow students space to ride and maneuver. If you have less space, you can make the road smaller, though not as realistic in terms of size.

Instructor:

1. Divide students into four groups, one group per stop sign.

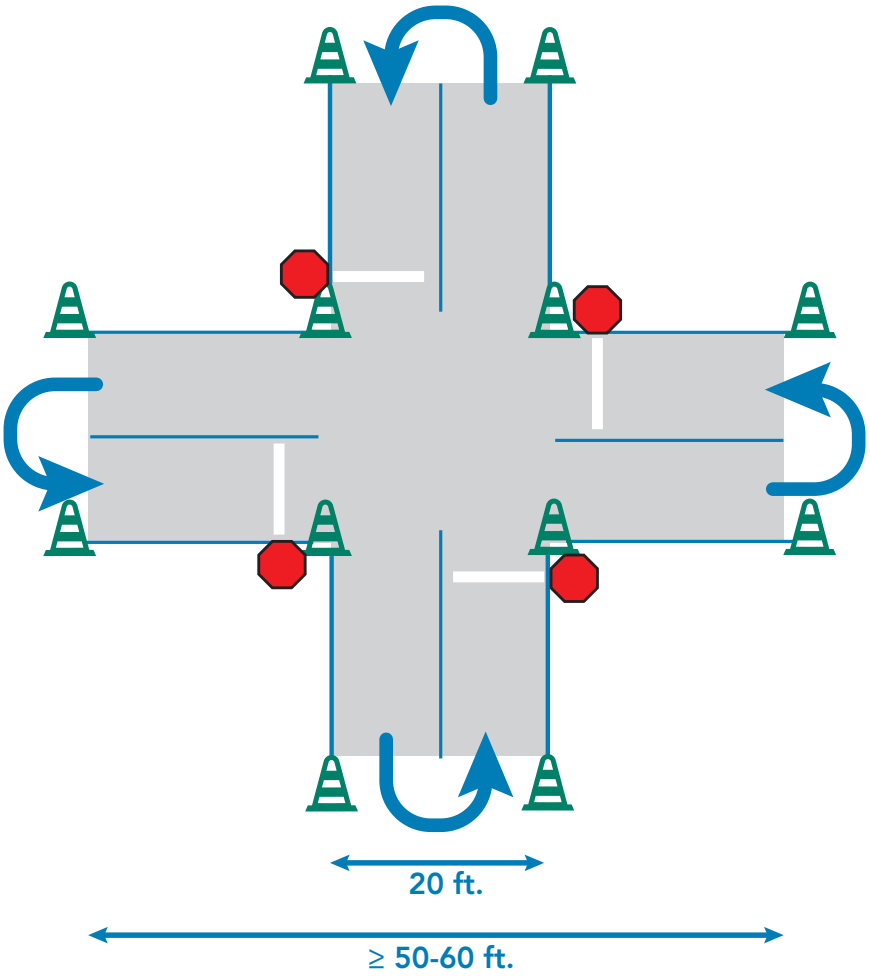
2. Have students travel through the intersection in the following order until each maneuver is mastered: Straight through, then Right Turns, then Left Turns. When students get to the end of the "road," have them loop around (U-turn) and go the opposite direction the just came. Remind them to yield to each other. Stop signs work as "first come, first served," but yield to those on the right if arriving to stop at same time.

3. This is a continuous activity. Students will yield and stop for each other when appropriate. Make sure to have each student signal and verbalize their actions.

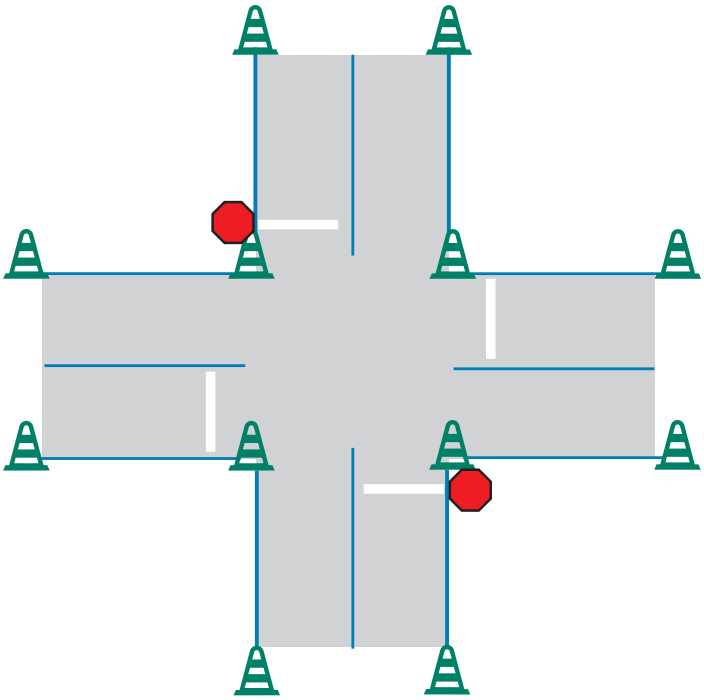
4. The teacher or volunteers stand in the center of the intersection to serve as the "traffic cop".

5. Once students master all maneuvers, instruct students that they may do any maneuver of choice when they get to the intersection (straight through, right turn, or left turn).

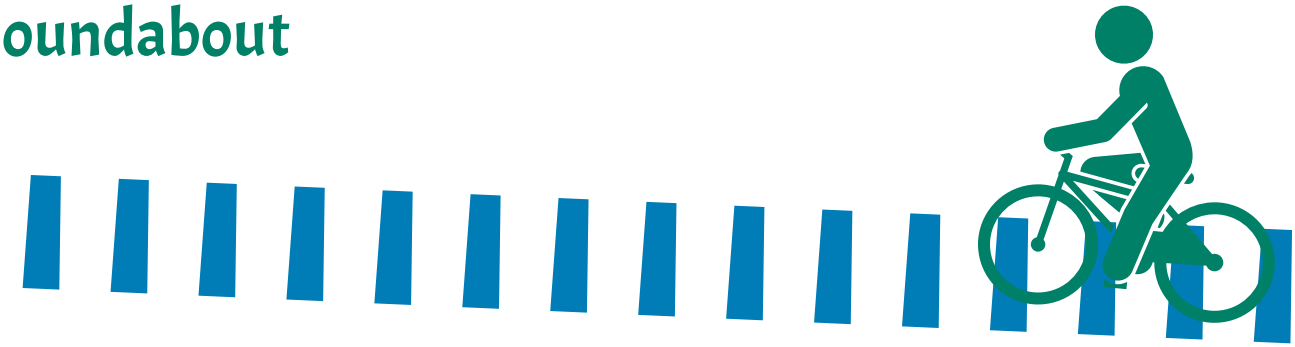
6. Non-cycling students or class volunteers can be added to the traffic mix eventually as "mock cars" and as crossing pedestrians.



Note: It can be set up first as a four-way stop then subtract two stop signs to create a two-way stop. Then explain how the east-west traffic has the "right-of-way" and that north-south traffic must stop.



Roundabout



BACKGROUND INFORMATION

Once students learn to properly navigate a basic intersection, they can learn about a different type of intersection such as a roundabout. A roundabout is a one-way, circular intersection without a traffic signal. Traffic flows counter-clockwise around a center island that operates with yield control at entry points, and gives priority to vehicles within the roundabout. A bicyclist may ride with traffic inside the roundabout, or use the crosswalks appropriately. When using a roundabout, bicyclists must follow the same rules as vehicles and yield when entering (as with the Figure 8 activity). Since roundabouts are designed to slow traffic, bicyclists should be able to travel at or near the same speed of motor vehicles, staying in line with the circulating traffic.

Prerequisites
Bicycle Skills 1, 2, 3, and *Residential Intersection Riding*

Objectives
Students will be able to explain how to properly navigate a roundabout as a bicyclist.

Videos
Roundabout and Roundabout Review

VIDEO: ROUNDABOUT

Guided Discussion:

1. WHAT IS THE FIRST THING YOU NOTICE?
2. WHAT DID YOU SEE THE RIDER DO?
3. WHAT DID YOU SEE THE RIDER DO FIRST?
   Slow down and look back.
4. WHAT DO YOU THINK ABOUT THE RIDER'S POSITION IN THE TRAFFIC LANE?
   This is where car drivers can see bicycle riders. This is where car drivers look for traffic.
5. WHAT WAS THE RIDER LOOKING FOR?
   Vehicles and Pedestrian Traffic.
6. WHAT DID THE RIDER DO NEXT?
   (Signal) look left, look right, look left, look back.

7. DID THE RIDER SEE ANY CARS?
Yes.

8. WHAT DID THE RIDER DO?
The rider continued to look for traffic and yield to traffic in the roundabout.

9. WHAT DID THE RIDER DO WHILE MOVING THROUGH THE ROUNDABOUT?
The rider continued to look for traffic and selects an appropriate travel lane position.

VIDEO: ROUNDABOUT REVIEW

Guided Discussion:

1. WHAT DID THE RIDER DO BEFORE ENTERING THE ROUNDABOUT?
The rider looked back, slowed down and looked for traffic.

2. WHY DO YOU THINK THE RIDER LOOKED LEFT FIRST?
The closest lane of traffic is on the left.

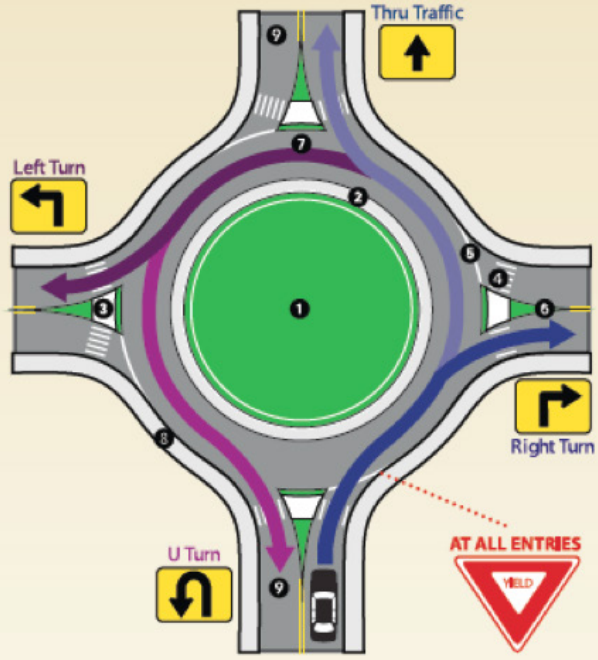
3. WHY DO YOU THINK THE RIDER LOOKED LEFT ONCE AGAIN BEFORE ENTERING?
Always check the closest lane of traffic just before entering the roundabout.

4. WHAT DID THE RIDER DO WHILE MOVING THROUGH THE ROUNDABOUT?
The rider continued to look for traffic and selects an appropriate travel lane position.
The rider communicated to other users by giving a strong hand signal to exit the roundabout.

When you are riding on the roadway, you are considered to be a vehicle and part of traffic. You have all of the rights and responsibilities of a person driving a car. People walking on the sidewalk or in the roadway are pedestrians. You must yield to pedestrians on the sidewalk and in the crosswalk.

What is a Roundabout?

A Roundabout is a one-way circular intersection without traffic signal equipment in which traffic flows around a center island that operates with yield control at the entry points, and gives priority to vehicles within the Roundabout.



1. Central Island
2. Concrete Truck Apron
3. Pedestrian Refuge
4. Crosswalk
5. Yield Line
6. Splitter Island
7. Circulatory Roadway
8. Sidewalk Around Perimeter
9. Exit Lanes and Entry Lanes

Roundabout Signs

Slow down when approaching a roundabout

Watch for pedestrians

Yield to traffic already in the roundabout

Stay to the right of the splitter island

Travel in a counterclockwise direction only.

Roundabout User Tips

Cars

- Determine where you want to go.
- Approach the roundabout as you would a typical four-way intersection.
- Stay to the right of the splitter island and SLOW DOWN to 10-15 mph.
- Watch for bicyclists and allow for them to merge into the entry lane.
- Watch for and yield to pedestrians in the crosswalk or waiting to cross.
- YIELD to traffic already in the roundabout.
- DO NOT TURN LEFT AT THE SPLITTER ISLAND.
- Once you are in the roundabout, do not stop except to avoid a collision; you have the right-of-way over entering traffic. Travel in a counter clockwise direction.
- Look for your street, use your right-turn signal and exit the roundabout.
- As you exit the roundabout, watch for and yield to pedestrians and bicyclists.
- If you miss your street, simply travel around the roundabout again and exit at the desired street.

Pedestrians

- Stay on the designated walkways at all times, crossing only at designated crosswalks.
- Never cross to the central island.
- Watch for cars; you have the right-of-way, but your best protection is your own attention.
- Proceed to the splitter island; the splitter island is a refuge area between opposing directions of traffic flow.

Bicyclists

- If comfortable riding in traffic, you may ride on the circulatory roadway of the roundabout like a car.
- As you approach the roundabout, merge into the entry lane before the shoulder or bike lane ends.
- Communicate your intentions to drivers by pointing to your destination.
- If uncomfortable riding in traffic, dismount your bicycle at the crosswalk and move to the sidewalk. Once on the sidewalk, walk your bicycle like a pedestrian.

Why Roundabouts?

Roundabouts move traffic safely and efficiently through an intersection. The benefits of a roundabout include slower speeds, reduction in pollution and fuel use, reduction in the severity of accidents, and drivers have more time to judge and react to other vehicles and pedestrians.

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Driving Roundabouts

First, determine where you want to go.

Going Right

1. Slow down and prepare to YIELD as you approach the roundabout.
2. Indicate a right turn.
3. YIELD to pedestrians and bicyclists crossing at the designated crosswalks.
4. You must YIELD to traffic already in the roundabout.
5. Enter the roundabout when there is a safe gap in the traffic.
6. Look for your street, use your right-turn signal, and exit the roundabout.
7. As you exit the roundabout, YIELD for any pedestrians or bicyclists crossing at the designated crosswalks.

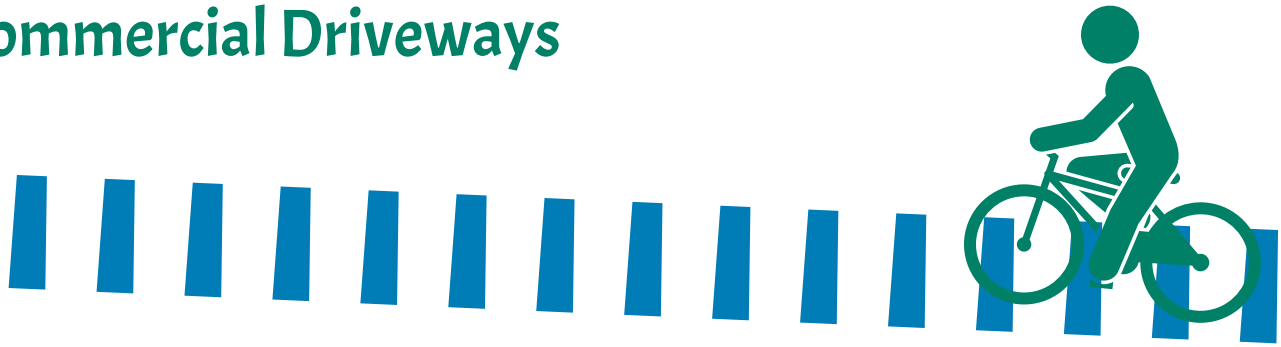
Going Straight Ahead

1. Slow down and prepare to YIELD as you approach the roundabout.
2. When going straight ahead you do not need to indicate on approach.
3. YIELD to pedestrians and bicyclists crossing at the designated crosswalks.
4. You must YIELD to traffic already in the roundabout.
5. Enter the roundabout when there is a safe gap in the traffic.
6. As you exit the roundabout, look out for vehicles traveling on the outside of the circulatory roadway that may continue to circulate around the roundabout.
7. As you exit the roundabout, YIELD for any pedestrians or bicyclists crossing at the designated crosswalks.

Going Left or Making a U-Turn

1. Slow down and prepare to YIELD as you approach the roundabout.
2. Indicate a left turn.
3. YIELD to pedestrians and bicyclists crossing at the designated crosswalks.
4. You must YIELD to traffic already in the roundabout.
5. Enter the roundabout when there is a safe gap in the traffic.
6. Look for your street, use your right-turn signal, and exit the roundabout.
7. As you exit the roundabout, YIELD for any pedestrians or bicyclists crossing at the designated crosswalks.

Commercial Driveways



BACKGROUND INFORMATION

Dart-outs into traffic from driveways and at intersections are a leading cause of traffic crashes involving children. As children get older, gain more bicycling experience and confidence, and parents feel comfortable in allowing them to venture farther from home, it is important to teach how to navigate signalized intersections and commercial driveways with the presence of traffic. This lesson reinforces skills previously learned and further emphasizes the importance of signaling, lane positioning, and communicating with others.

Prerequisites
Bicycle Skills 1, 2, 3, and *Residential Intersection Riding*

Objectives
Students will be able explain how to navigate a signalized intersection and communicate with others. Students will be able to explain how to position themselves and communicate using a commercial driveway whether going straight, turning right, or turning left.

Videos
Signalized Intersection; Signalized Intersection Review; Driveway, Straight; Driveway, Straight, Review; Driveway, Right; Driveway, Right Review; Driveway, Left; Driveway, Left Review.

VIDEO: SIGNALIZED INTERSECTION

Guided Discussion:

1. WHAT IS THE FIRST THING YOU NOTICE?
2. WHAT DID YOU SEE THE RIDER DO?
3. WHAT DID YOU SEE THE RIDER DO FIRST?
   Signal, slow down and look back.
4. WHAT DO YOU THINK ABOUT THE RIDER'S POSITION IN THE TRAFFIC LANE?
   This is where car drivers can see bicycle riders. This is where car drivers look for traffic.
5. WHAT WAS THE RIDER LOOKING FOR?
   Vehicles and Pedestrian Traffic.
6. WHAT DID THE RIDER DO NEXT?
   (Signal) look left, look right, look left, look back.
   POWER PEDAL UP!

7. DID THE RIDER SEE ANY CARS?
Yes. He waited for the light to change to green and checked traffic.

When you are riding on the roadway, you are considered to be a vehicle and part of traffic. You have all of the rights and responsibilities of a person driving a car. People walking on the sidewalk or in the roadway are pedestrians. You must yield to pedestrians in the crosswalk.

VIDEO: SIGNALIZED INTERSECTION REVIEW

Guided Discussion:

1. WHAT DID THE RIDER DO BEFORE ENTERING THE INTERSECTION?
Power pedal up! The rider looked back, slowed down and looked for traffic.

2. WHY DO YOU THINK THE RIDER LOOKED LEFT FIRST?
The closest lane of traffic is on the left.

3. WHY DO YOU THINK THE RIDER LOOKED LEFT ONCE AGAIN BEFORE CROSSING?
Always check the closest lane of traffic just before entering the intersection.

4. WHAT DID THE RIDER DO WHILE MOVING THROUGH THE INTERSECTION?
The rider continued to look for traffic and selects an appropriate travel lane position.

VIDEO: DRIVEWAY, STRAIGHT

Guided Discussion:

1. WHAT IS THE FIRST THING YOU NOTICE?

2. WHAT DID YOU SEE THE RIDER DO?

3. WHAT DID YOU SEE THE RIDER DO FIRST?
Slow down and look back.

4. WHAT DO YOU THINK ABOUT THE RIDER'S POSITION IN THE TRAFFIC LANE?
This is where car drivers can see bicycle riders. This is where car drivers look for traffic.

5. WHAT WAS THE RIDER LOOKING FOR?
Vehicles and Pedestrian Traffic.

6. WHAT DID THE RIDER DO NEXT?
(Signal) look left, look right, look left, look back.

7. DID THE RIDER SEE ANY CARS?
Yes.

8. WHAT DID THE RIDER DO WHILE LEAVING THE COMMERCIAL DRIVEWAY?
The rider continued to look for traffic and selects an appropriate travel lane position.

When you are riding on the roadway, you are considered to be a vehicle and part of traffic. You have all of the rights and responsibilities of a person driving a car. People walking on the sidewalk or in the roadway are pedestrians. You must yield to pedestrians in the crosswalk.

VIDEO: DRIVEWAY, STRAIGHT REVIEW

Guided Discussion:

1. WHAT DID THE RIDER DO BEFORE LEAVING THE COMMERCIAL DRIVEWAY?
Power pedal up! The rider looked back, slowed down and looked for traffic.

2. WHY DO YOU THINK THE RIDER LOOKED LEFT FIRST?
The closest lane of traffic is on the left.

3. WHY DO YOU THINK THE RIDER LOOKED LEFT ONCE AGAIN BEFORE EXITING?
Always check the closest lane of traffic just before entering the intersection.

4. WHAT DID THE RIDER DO WHILE EXITING THE COMMERCIAL DRIVEWAY?
The rider continued to look for traffic and selects an appropriate travel lane position.

VIDEO: DRIVEWAY, RIGHT

Guided Discussion:

1. WHAT IS THE FIRST THING YOU NOTICE?

2. WHAT DID YOU SEE THE RIDER DO?

3. WHAT DID YOU SEE THE RIDER DO FIRST?
Slow down and look back.

4. WHAT DO YOU THINK ABOUT THE RIDER'S POSITION IN THE TRAFFIC LANE?
This is where car drivers can see bicycle riders. This is where car drivers look for traffic.

5. WHAT WAS THE RIDER LOOKING FOR?
Vehicles and Pedestrian Traffic.

6. WHAT DID THE RIDER DO NEXT?
(Signal) look left, look right, look left, look back.

7. DID THE RIDER SEE ANY CARS?
Yes.

8. WHAT DID THE RIDER DO WHILE LEAVING THE COMMERCIAL DRIVEWAY?
The rider continued to look for traffic and selects an appropriate travel lane position.

When you are riding on the roadway, you are considered to be a vehicle and part of traffic. You have all of the rights and responsibilities of a person driving a car. People walking on the sidewalk or in the roadway are pedestrians. You must yield to pedestrians in the crosswalk.

VIDEO: DRIVEWAY, RIGHT REVIEW

Guided Discussion:

1. WHAT DID THE RIDER DO BEFORE LEAVING THE COMMERCIAL DRIVEWAY?
Power pedal up! The rider looked back, slowed down and looked for traffic.

2. WHY DO YOU THINK THE RIDER LOOKED LEFT FIRST?
The closest lane of traffic is on the left.

3. WHY DO YOU THINK THE RIDER LOOKED LEFT ONCE AGAIN BEFORE EXITING?
Always check the closest lane of traffic just before entering the intersection.

4. WHAT DID THE RIDER DO WHILE EXITING THE COMMERCIAL DRIVEWAY?
The rider continued to look for traffic and selects an appropriate travel lane position.

VIDEO: DRIVEWAY, LEFT

Guided Discussion:

1. WHAT IS THE FIRST THING YOU NOTICE?

2. WHAT DID YOU SEE THE RIDER DO?

3. WHAT DID YOU SEE THE RIDER DO FIRST?
Slow down and look back.

4. WHAT DO YOU THINK ABOUT THE RIDER'S POSITION IN THE TRAFFIC LANE?
This is where car drivers can see bicycle riders. This is where car drivers look for traffic.

5. WHAT WAS THE RIDER LOOKING FOR?
   Vehicles and Pedestrian Traffic.

6. WHAT DID THE RIDER DO NEXT?
   (Signal) look left, look right, look left, look back.

7. DID THE RIDER SEE ANY CARS?
   Yes.

8. WHAT DID THE RIDER DO WHILE LEAVING THE COMMERCIAL DRIVEWAY?
   The rider continued to look for traffic and selects an appropriate travel lane position.

When you are riding on the roadway, you are considered to be a vehicle and part of traffic. You have all of the rights and responsibilities of a person driving a car. People walking on the sidewalk or in the roadway are pedestrians. You must yield to pedestrians in the crosswalk.

VIDEO: DRIVEWAY, LEFT REVIEW

Guided Discussion:

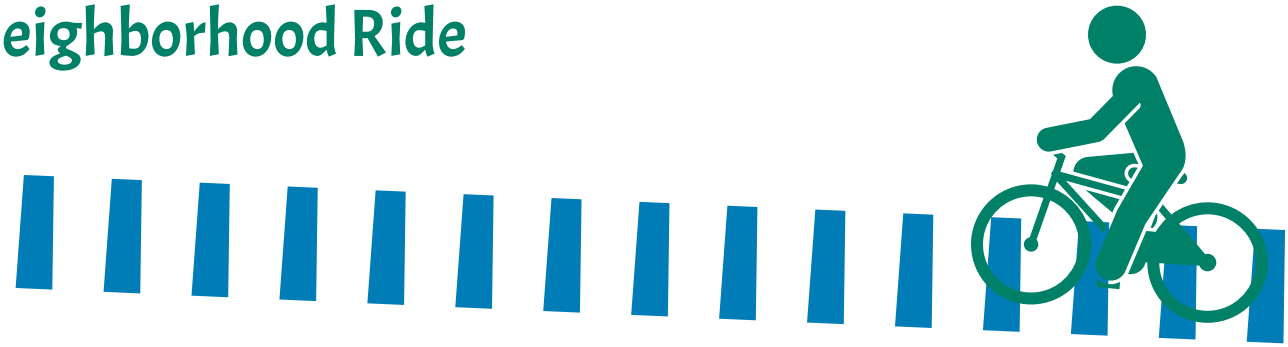
1. WHAT DID THE RIDER DO BEFORE LEAVING THE COMMERCIAL DRIVEWAY?
   Power pedal up! The rider looked back, slowed down and looked for traffic.

2. WHY DO YOU THINK THE RIDER LOOKED LEFT FIRST?
   The closest lane of traffic is on the left.

3. WHY DO YOU THINK THE RIDER LOOKED LEFT ONCE AGAIN BEFORE EXITING?
   Always check the closest lane of traffic just before entering the intersection.

4. WHAT DID THE RIDER DO WHILE EXITING THE COMMERCIAL DRIVEWAY?
   The rider continued to look for traffic and selects an appropriate travel lane position.

Neighborhood Ride



BACKGROUND INFORMATION

This is a culminating activity that combines all of the learned bicycle safety skills. It is important that a neighborhood ride be the final part of a sequence of bicycle safety skills activities that the students learn. If you decide to venture off the school property for this activity, you will need field trip permission slips. It is also necessary to have law enforcement and additional parent volunteers or teacher aides (approximately 2 adults per 8-10 students) to assist with the activity.

Prerequisites
Students must complete all Bicycle Safety lessons prior to going on a neighborhood ride. *Helmet Fit, Bicycle Fit, ABC Quick Check, Bicycle Skills 1, Bicycle Skills 2, Bicycle Skills 3*, and *Residential Intersection Riding.*

Objectives
Students will be able to demonstrate skills learned throughout all the bicycle safety lessons.

NEIGHBORHOOD RIDE

Material/Equipment: Leader question/discussion cards, Cell phones, first aid kit, List of student names and parent phone contact numbers.

Set-up: Identify a safe and varied route for this activity (Between ½ and 1 mile long). The route should be located in a quiet neighborhood adjacent to the school. If this is not possible, conduct the ride on the school campus. Try to include intersections, and visual barriers. Look for a route that has safer features such as an area with sidewalks, crossing guards, good lighting, low traffic, where others are walking or riding bicycles, no construction, etc.

Instructor: Assemble the class and discuss the purpose of this final activity. Students are to identify surface hazards, visual barriers, potential moving hazards, and discuss why this is or is not a good place to walk.

Divide the class into small groups of 8-10 students with two adults per group (one to lead and one to bring up the rear). Leaders must know the route and be ready to lead discussion on the purpose of the lesson. Discuss how to choose a safe route and what to look for in a good route (choose an area with sidewalks, crossing guards, good lighting, low traffic, where others are walking or riding, avoid construction areas, etc.).

Note: Make sure leaders have walked or bicycled the route before this lesson, have a copy of the questions/discussion card, and have cell phones and contact information (see material list).

At the stopping/waiting site discussion will take place about the road/sidewalk conditions, traffic etc.

Sample Questions to be asked at each control point.

1. WHAT DID YOU NOTICE AS WE WERE TRAVELING TO THIS PLACE?
   Surface conditions, visual barriers, hazards, problems, people, flowers.

2. WHAT SOUNDS DID YOU HEAR?

3. DID YOU NOTICE SOMETHING THAT ONE OF OUR GROUP MEMBERS DID WELL?
   Identify good behaviors, scanning, signaling, and communicating.

4. CAN YOU SEE THE NEXT CONTROL POINT? HOW SHOULD WE GET THERE? WHAT DO WE DO FIRST? WHAT DO WE NEED TO BE CAREFUL OF?

5. WHEN YOU GET TO THE CONTROL POINT WHAT WILL YOU DO?
   Move off of the roadway and wait patiently for everyone.

You may also fill out the Safe Routes to School Bikeability Checklist with your class as you walk through the route. This will help the class evaluate the route based on various conditions such as presence of sidewalks, speed of road, lighting, etc. See checklist link below:

http://www.saferoutesinfo.org/sites/default/files/resources/Bikeability_Checklist.pdf