

Kindergarten Pedestrian Safety Lessons



Toole Design Group

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Pedestrian Lesson 1 – Kindergarten

Crossing Safely

Time: 20 Minutes

Objectives: To understand the need for crossing any street with care and caution. To become familiar with the important steps in crossing a street, such as stopping at the curb and finding the edge, looking left, right, and left again before crossing, and continuing to scan for traffic while crossing.

Maryland Learner Outcomes:

- Health, Health Behaviors (K-3): Identify rules that promote health.
- Health, Safety and Injury Prevention (K-3): There are behaviors, such as taking precautions and following rules, that are basic to safe daily living.

Materials: Overhead/Handout K.1.1 (the Edge); Overhead/Handout K.1.2; Looking Left-Right-Left Activity Diagram K.1.3; “Crossing the Street Song” K.1.4; 2 Shoeboxes; White paper; 2 sheets of construction paper, scissors, and glue stick (to make signs for boxes); Overhead projector (optional).

Suggested Teaching Venue: This lesson works best if taught outdoors using a curb in the school parking lot. There are several possibilities for implementation, including the home classroom during a health unit, physical education class, or any other indoor or outdoor classroom situation. The lesson is not limited to being taught in school—it may be offered through a club, community group, or other local organization.

Plan Ahead: Create overheads or copies of Overhead/Handout K.1.1, Overhead/Handout K.1.2 in Lesson Pack 1. Make copies of the “Crossing the Street Song” K.1.4 for each student. Attach the paper to the sides of the two boxes for use in the activity. *You may want to coordinate with music teacher on teaching the “Crossing the Street Song”

Vocabulary: pedestrian; edge; crossing; scan; diagonal; straight; safe; dangerous; left; right

Lesson Progression:

Introduction
Instruction
Activity
Conclusion

Note to teacher: This lesson is geared towards teaching kindergarteners the basics of crossing the street. It is important to note that children at this age are not ready to cross streets on their own. They should be encouraged to cross the street only with the help of an adult.

1. 50% to 60% of pedestrian injuries to children aged 5 to 9 are “mid-block dart-out” crash types. (*Federal Highway Administration, 1996*)
2. Pedestrians under age 10 are over represented in crashes where contributing factors are “ran into street”, “ran from between parked vehicles”, and “playing in street”. (*Federal Highway Administration, 1996*)



Pedestrian Lesson 1 – Kindergarten

Crossing Safely

Introduction (5 minutes)

Explain: Today we are going to learn about the steps to **crossing** the street safely.

Talk to the students about their street crossing experience.

Suggested Discussion Items:

1. How many of you have crossed the street in your neighborhood?
2. What do you do before you cross the street?
3. Have you ever chased a ball into the street?
4. Have you ever been crossing the street when a car came at you?
5. Have you ever gone for a long walk from your house? Where or why not?
6. What is a **pedestrian**? (someone who walks)

Instruction (5 minutes)

Explain: Let's learn about how to cross the street safely.

1. Have the students place their pencil on the edge of their desk. Ask them what happens to the pencil when it goes off the **edge**. Explain to them that when talking about crossing the street, the word edge means the line between **safe** and being in **danger**.

Show Overhead/Handout K.1.1, Diagram A.

1. If you were standing on spot **A** would you be safe, in danger, or on the edge?
2. If you were standing on spot **B** would you be safe, in danger, or on the edge?
3. If you were standing on spot **C** would you be safe, in danger, or on the edge?

Show Diagram B.

1. Which shape shows the edge? (The circle.)
2. Which shape shows the edge on the other side?
Explain: Your goal is to get to a place that is safe, which is beyond the edge on the other side of the street.

Show Overhead/Handout K.1.2.

1. If you were standing here (point to location on the diagram), which way would the car travel? (From the square to the circle, or from the triangle to the rectangle.)
2. Which way should you look first? (**left**, because a car coming from that direction will be closest to you.)
3. Then which way should you look? (**right**, to check for cars coming from the other direction.)
4. Before you start to cross, you should look left one more time. Why? (to see if another car is coming)
5. Should you cross the street at a **diagonal or straight across**? (Straight across.) Why? (You will be in the road for less time.) The longer it takes to cross, the more danger there is.
**You can prove the solid line is safer by placing two bean bags ten feet apart. Walk in a straight line towards the first bean bag while the kids count the time it takes. Return to the starting mark and walk at an angle to the second line as the children count. Which took longer?*
6. When you cross you should **scan** left and right.
7. Should you run or walk across the street? (walk, you cannot see anything if you are running or you could fall)
8. What should I do as I am walking? (scan, look left and right for cars as you cross)
9. If my ball rolls into the street, should I run out to get it? (No. Always ask an adult to get it for you.)
10. Should I cross the street by myself? (no, only with an adult.)

Activity (5 to 10 minutes)

Before the lesson, gather pictures of different colored cars and attach them to half of the sides of the two boxes. Or draw letters, numbers, or shapes on white pieces of paper (make them thick and visible) and attach them to the sides of the two boxes. If you don't have boxes, you can use papers with the cars, letters, numbers, or shapes drawn on each side.

1. Refer to the **Look Left, Right, and Left Again Activity Diagram (K.1.3)** for specific setup. You will need to make the symbol boxes.
2. The diagram shows the teacher standing at the "T", which is the suggested edge of the street.



3. Explain that the edge can be the curb, the edge of the pavement, or the edge of a line of cars next to the lane where cars go by. The edge is a safe place to look for cars because you can see cars that are coming, but are still far enough away from them to be safe.
4. Two helpers are chosen to hold the boxes or paper. One stands on each side of the teacher.
5. The students practice the following step, one at a time:
 - (a) The student comes to the edge (the teacher).
 - (b) Next, the student stops and looks around the edge (the teacher).
 - (c) Finally, the student looks left, right, and left again.
6. Then they tell the teacher what the symbols on the boxes were. If they see the picture of a car or a specific letter or symbol (on either side), they should not cross and should repeat looking to the left, to the right, and to the left again.
7. When it is safe, they should cross and continue to scan left and right.
8. As they cross, the helpers flip the box to another side or show the opposite side of the paper. After the student crosses to the other side, the helpers hide the boxes or paper behind them.
9. The student reports what the symbols were while they were crossing.
10. Demonstrate the steps for the students at first and then have each student take a turn.

Optional Activity: Have students cross five crosswalks in their community with their parents, and tell the class about their crossing experience (cars went fast, the road was wide, etc.)

Conclusion (2 to 5 minutes)

1. Have the students describe what an edge is.
2. Identify the steps used when crossing.
3. Have the students sing the “Crossing the Street Song” (K.1.4) from the handout pack to help them remember the steps.
4. Remind the students that they should not cross the street on their own without the help of an adult.
5. Remind them to never run into the street after a ball or other object.



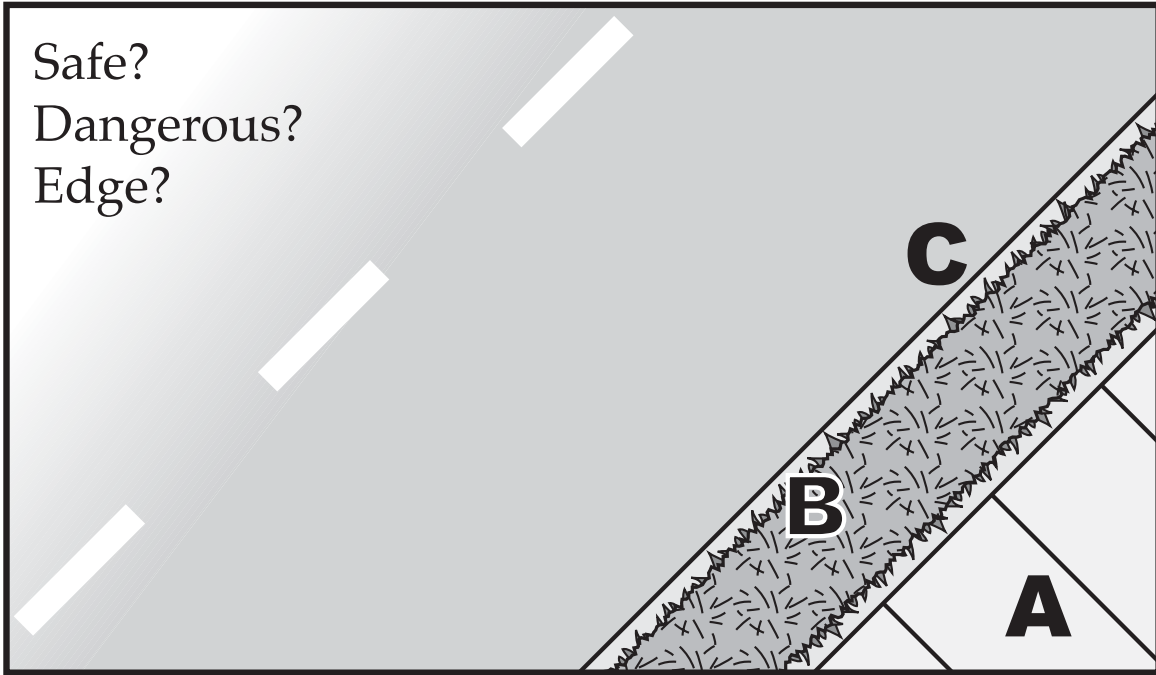
Toole Design Group



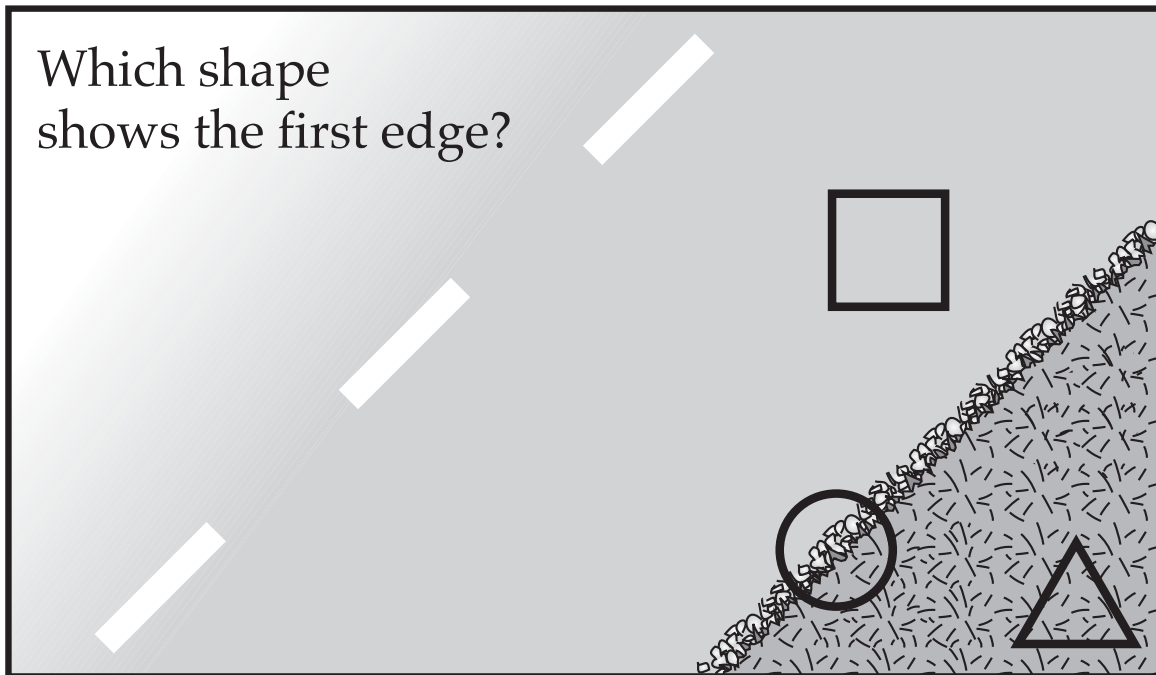
Overhead/Handout K.1.1

“The Edge”

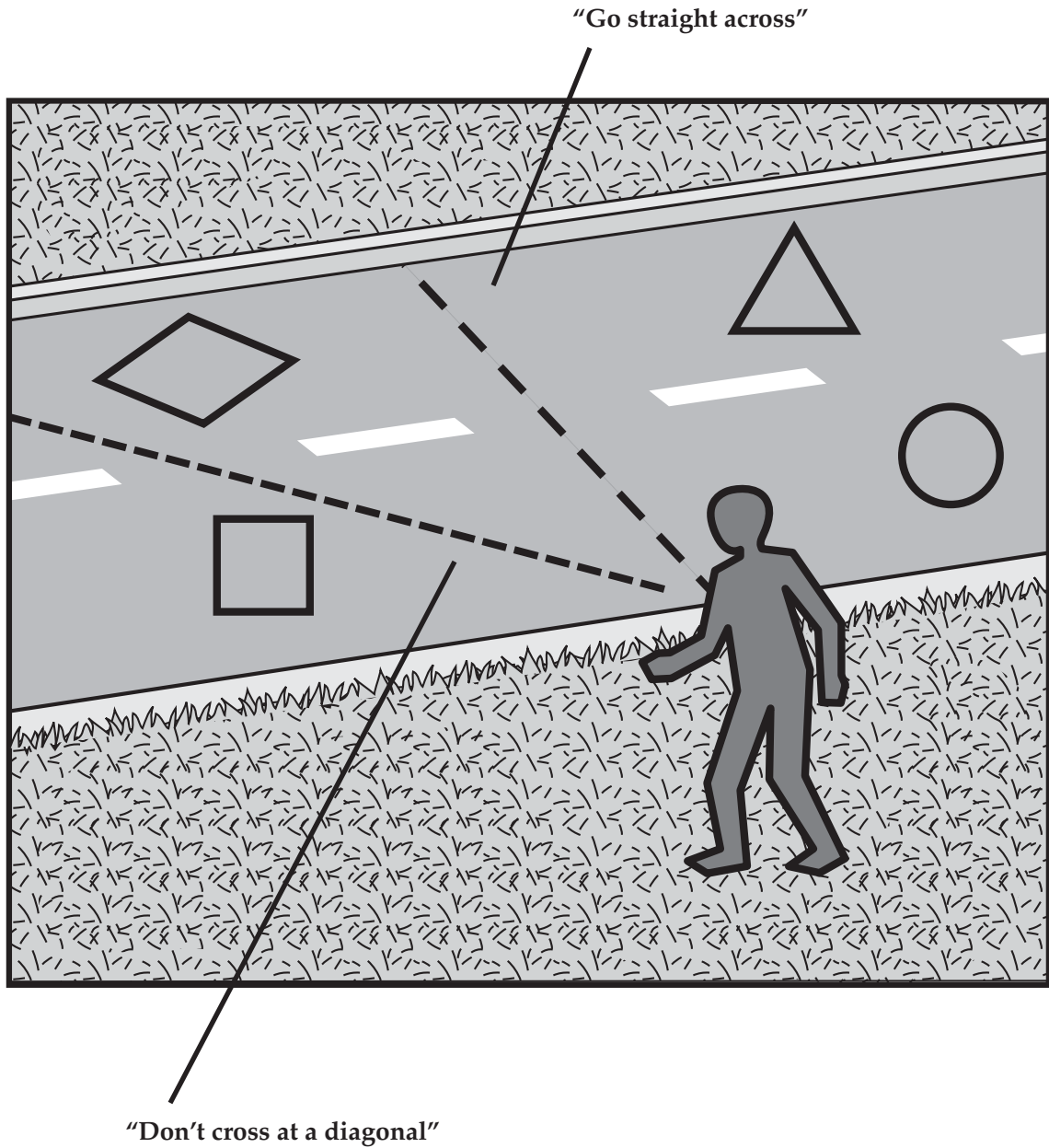
K.1.1.A



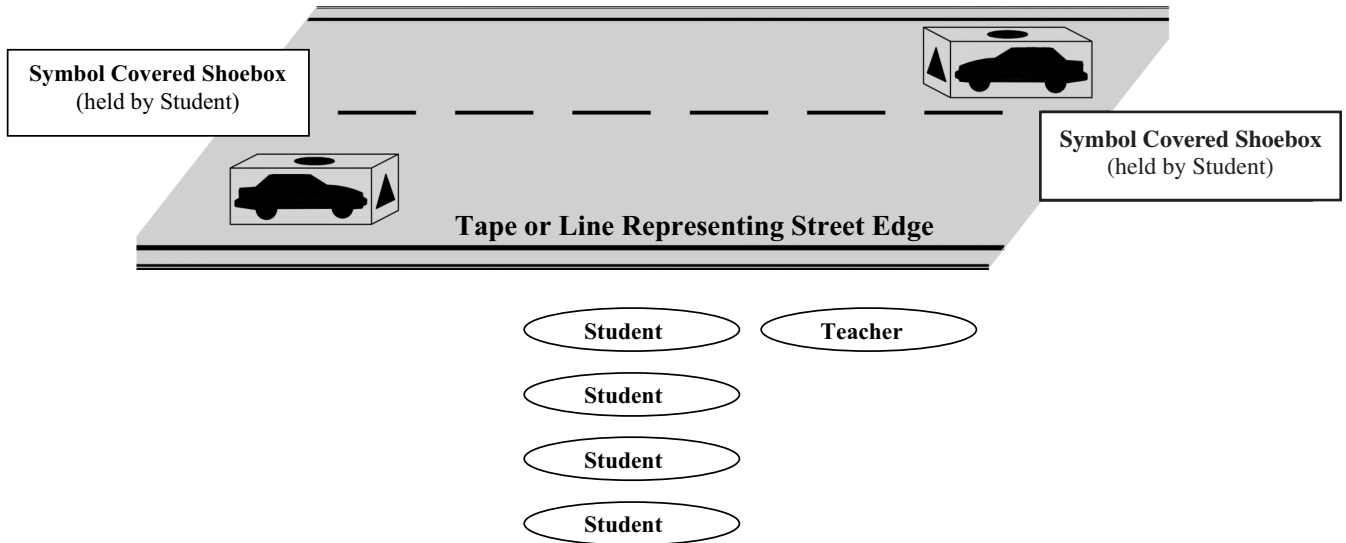
K.1.1.B



Overhead/Handout K.1.2



Look Left, Right, and Left Again Activity Diagram K.1.3



Crossing the Street Song K.1.4

Crossing the Street Song

Sung to the Tune of London Bridge

Here we go, across the street
Across the street
Across the street
Here we go, across the street
We cross safely!

First we stop at the edge
At the edge
At the edge
First we stop at the edge
We cross safely!

Now we're looking left, right, left
left, right, left
left, right, left
Now we're looking left, right, left
We cross safely!

Now we're going straight across
straight across
straight across
Now we're going straight across
We cross safely!

As we cross, we still look
we still look
we still look
As we cross, we still look
WE CROSSED SAFELY!!!





Pedestrian Lesson 2 – Kindergarten

Bus Safety

Time: 30 Minutes

Objectives: To understand the need to be a safe pedestrian around the bus. To learn how to exit a bus and cross the street safely.

Maryland Learner Outcomes:

- Health, Health Behaviors (K-3): Compare behaviors that are safe to those that are risky.
- Health, Health Behaviors (K-3): Describe ways to avoid and reduce threatening or unsafe situations.

Materials: Where to Cross in Front of A Bus K.2.1; Diagram of Danger Zones around the Bus K.2.2; Crossing Safely in the vicinity of a Bus Activity Diagram K.2.3; Markers; 2 Boxes; Paper

Suggested Teaching Venue: In the home classroom during health unit or during physical education class. Can also be done with a real bus on the day when students practice bus emergency exit procedures.

Plan Ahead: Create overheads or copies of Overhead/Handout K.2.1. Make copies of the “Diagram of Danger Zones around the Bus” (K.2.2) for each student. Use the boxes from Lesson 1 or tape sheets of paper with shapes, numbers, vocabulary words, or other symbols to the sides of boxes.

Vocabulary: Bus crossing bar, bus danger zones

Lesson Progression:

Introduction
Instruction
Activity
Conclusion

Note to teacher: Here are some statistics about the need for teaching pedestrian safety near the bus to students.

1. Most School bus-related injuries occur when children are boarding or exiting because a blind spot extends approximately ten feet in front of the bus. (*“Pedestrian Safety,” San Diego Safe Communities 2000, 2001*)
2. More than half of the pedestrian fatalities in school bus-related crashes were children between 5 and 7 years old. (*“School Bus Safety Fact Sheets,” National Highway Traffic Safety Administration, 2001*)



Pedestrian Lesson 2 – Kindergarten

Bus Safety

Introduction (5 minutes)

Explain: Today we are going to learn how to enter and exit the bus safely.

Talk to the students about their bus riding experience.

Suggested Topics:

1. How many of you ride the bus to school?
2. What is it like on the bus? Do people stay in their seat?
3. Does anyone have to cross the street when the bus drops you off?
4. What do you do when you get off the bus?

Instruction (10 minutes)

(Using overheads or handouts from the following pages)

Discuss keeping safe while waiting for the bus.

1. Why should you stay on the sidewalk or away from the street when waiting for the bus? (Cars are in the street and they could hurt you.)
2. Never run into the street, especially if you are playing with friends.
3. Never chase a ball or object into the street while waiting for the bus.
4. Do not approach the door of the bus until the bus driver opens the door and says that it is safe board the bus. Make sure you look to the left, to the right, and again to the left before crossing the door of the bus.
5. Why is important to stay in your seat during the bus ride? (So the bus driver can keep her eyes on the road.)

Show Overhead/Handout K.2.1

1. What is the purpose of the **crossing bar** (See diagram)? (To keep crossers in sight of the driver.)
2. What would happen if you were too close to the bus? (The driver could not see and may run you over.)
3. What does the sign on the side of the bus tell drivers to do? (Stop.)
4. Where is the edge you want to get to when you

get off the bus? (It is where you first lean your head out from the safety of the bus to look for traffic.)

Discuss the danger zones around a bus.

1. Hand out the diagram of the **danger zones** around the bus (K.2.2) to each student.
2. Explain that you should never touch the bus or stand or walk close to the bus.
3. Why is standing inside the crossing bar area dangerous? (The bus driver can't see you.)
4. Why should you never stand behind the bus? (The bus driver can't see you and could back the bus up into you.)
5. If you drop something in the street what should you do? (Signal the bus driver so he does not drive off. He or she will stay put, holding up traffic while you get the object back.)

Point to Route 1 on Diagram K.2.2.

1. What you should do when you get off the bus on the same side of the street as your home? (You should get clear of the door by taking five big steps from the bus.)

Point to Route 2 on Diagram K.2.2.

1. What should you do when you get off the bus and need to cross the street? (You should take 5 big steps away from the door and then turn left and take 10 big steps past the front of the bus. Then you should look up at the bus driver and walk towards the street in front of the bus.)
2. When you reach the second edge (edge of bus closer to middle of road where you can first see traffic) of the bus, you should look to the left, to the right, and again to the left before crossing the road.
3. Should you run across or should you walk? (Walk. You cannot see anything if you are running, and you take the risk of falling.)
4. *Teacher can demonstrate.* What should I do as I am walking? (Scan, look left and right as you cross.)



Activity (10 minutes)

For this activity, it is ideal if you can use a real bus driver and a real bus. However, you can simulate a bus with a large tape rectangle and chairs.

Before the lesson, gather pictures of different colored cars and attach them to half of the sides of the two boxes. Or draw letters, numbers, or shapes on white pieces of paper (make them thick and visible) and attach them to the sides of the two boxes. If you don't have boxes, you can use papers with the cars, letters, numbers, or shapes drawn on each side.

1. See "Crossing safely in the vicinity of a bus activity diagram" K.2.3 for possible layout. This activity can be set up in two minutes or less.
2. Divide the students into groups of two or four or six. The teacher stands at the location marked by the "T" on the diagram. The students practice the following step, one at a time.
3. The student waits for the bus driver (helper student) to stop the bus. They get up and walk out the bus door (use cones or bean bags to denote door).

4. When the student comes to the doorway edge of the bus (a chair or cones) they should stop. They then should look to the left, to the right, and again to the left.
5. Demonstrate the activity for the students, and then have each student take a turn.

Conclusion (2 to 5 minutes)

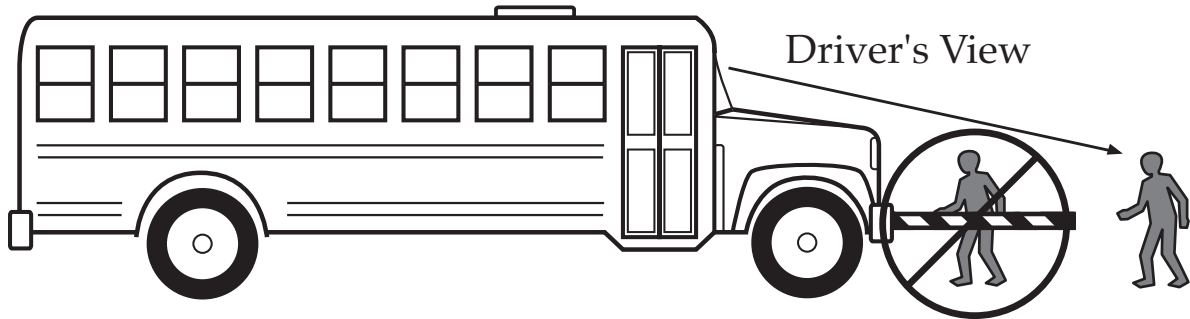
1. Have the students describe where the edge on a bus is.
2. What is the purpose of the crossing bar?
3. Why should you stop at the edge of the bus and look before crossing?
4. Identify the steps to take when exiting the bus:
 - (a) Stand up after the bus comes to a stop.
 - (b) Once out of the bus, look to the left, to the right, and again to the left.
 - (c) Walk straight to the safety of the edge.



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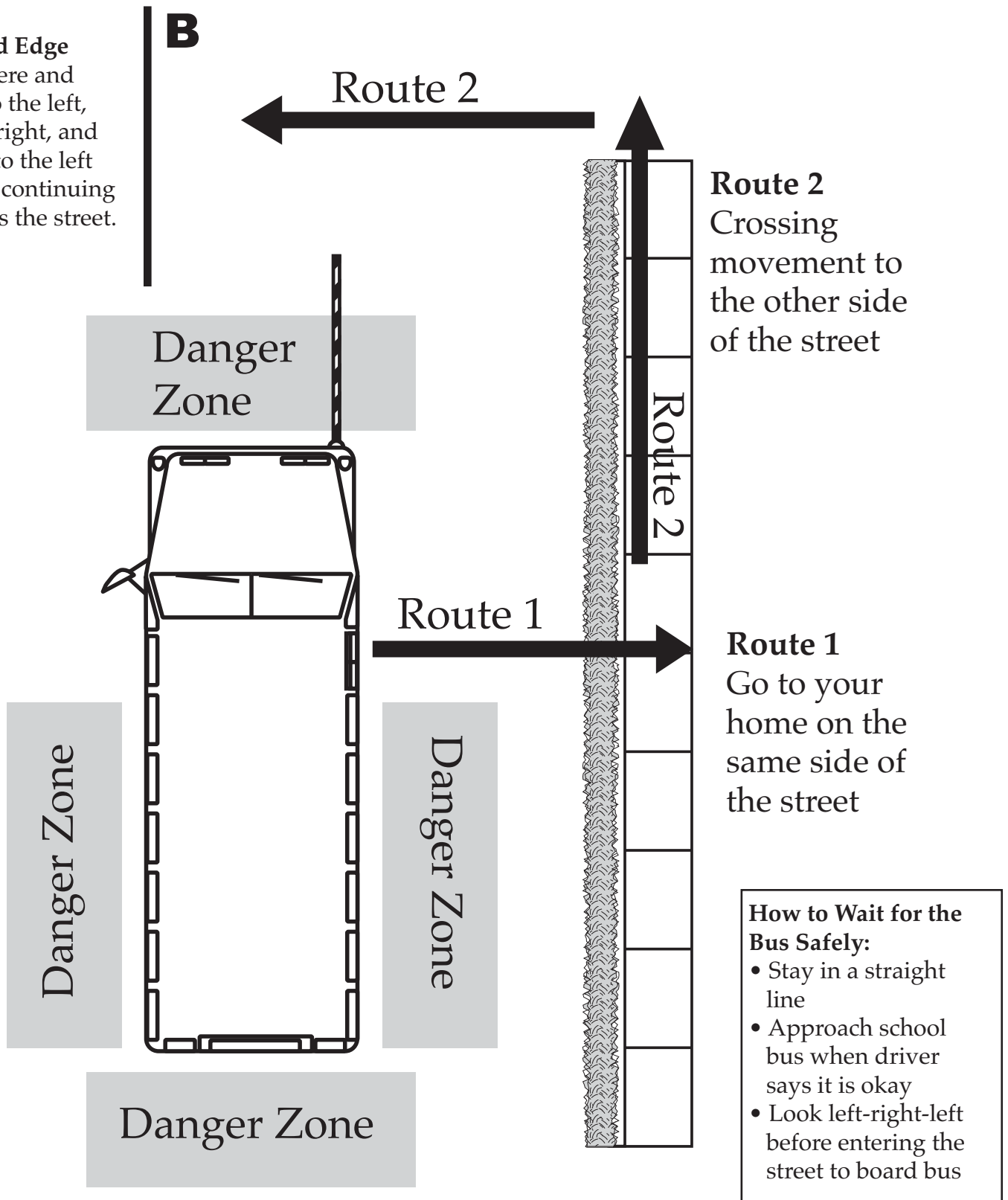


Where to Cross in Front of a Bus K.2.1.

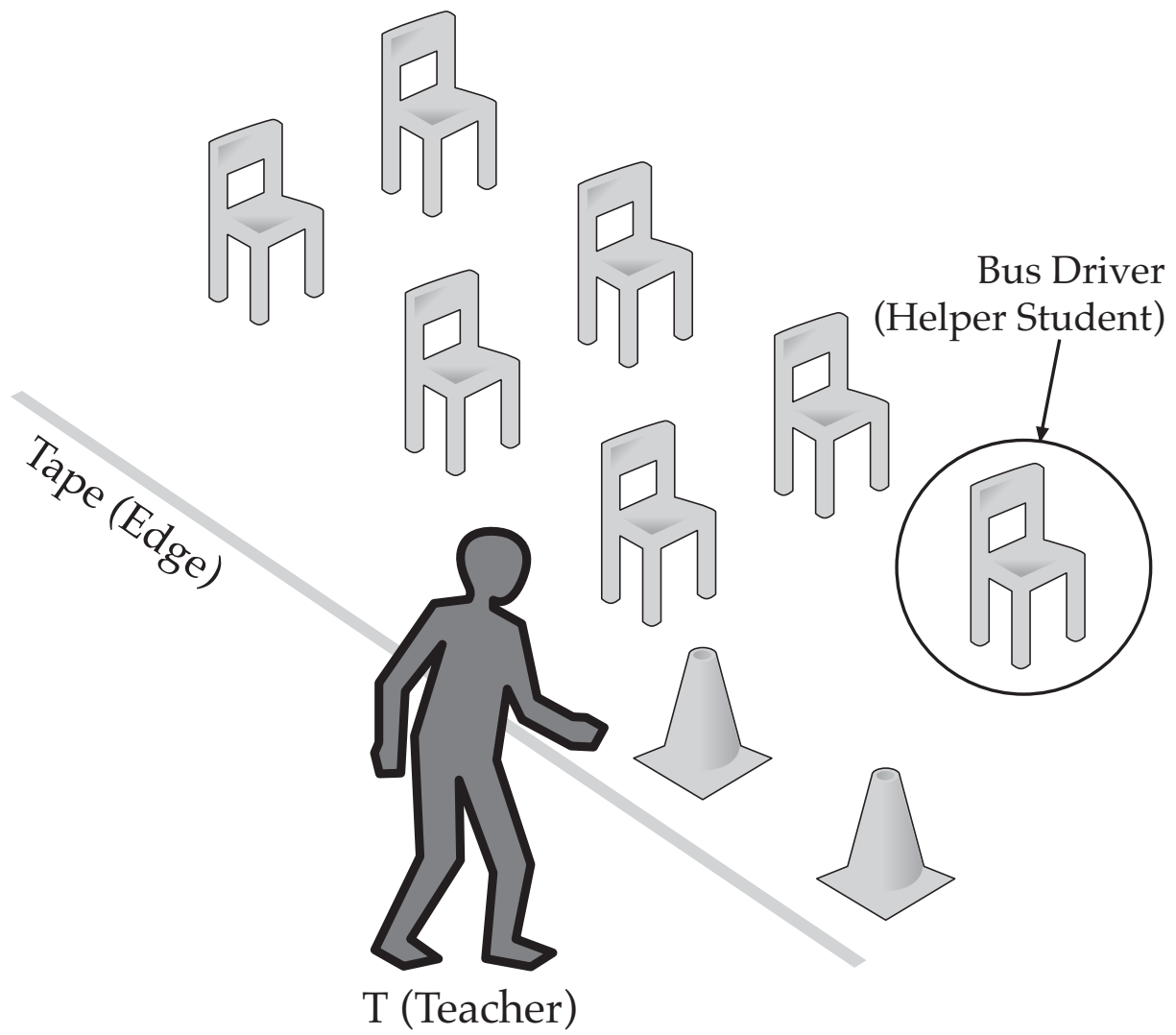


Danger Zones around the Bus Diagram K.2.2

Second Edge
Stop here and look to the left, to the right, and again to the left before continuing to cross the street.



“Crossing Safely in the Vicinity of a Bus” Activity Diagram K.2.3





Pedestrian Lesson 3 – Kindergarten

Crossing the Intersection

Time: 25 Minutes

Objectives: To understand the complexities and differences between crossing the street and crossing an intersection. To develop the skill of looking behind after looking to the left, to the right, and again to the left.

Maryland Learner Outcomes:

- Health, Health Behaviors (K-3): There are people, places and situations that may be hazardous to one’s health and safety.
- Health, Health Behaviors (K-3): Identify rules that promote health.

Materials: Overhead / Handout K.3.1; Overhead / Handout K.3.2; “Walk / Don’t Walk” Sign K.3.3; “Intersection Crossing Activity” Graphic K.3.4; “Safe Crossing Steps” Cut-Out Sheet K.3.5 (optional); Concentration Cards K.3.6 (optional); 3 Boxes; scissors (optional)

Suggested Teaching Venue: There are several possibilities for implementation, including the home classroom during a health unit, physical education class, or any other indoor or outdoor classroom situation. The lesson is not limited to being taught in school—it may be offered through a club, community group, or other local organization.

Plan Ahead:

Create overheads or copies of Overhead / Handout K.3.1 and Overhead / Handout K.3.2. Create copies of “Safe Crossing Steps” Cut-Out Sheet K.3.5 (optional), Concentration Cards K.3.6 (optional); and for each member of the class. Create three symbol boxes for the activity. Use rope, tape, ribbon or bean bags to mark the crosswalk.

Vocabulary: Intersection, crosswalk, pedestrian signal, push-button

Lesson Progression:

Introduction
Instruction
Activity
Conclusion

Note to teacher: This lesson is geared towards teaching kindergarteners. It is important to note that children at this age are not ready to cross intersections on their own. They should be encouraged to cross an intersection only with the help of an adult. Statistics show that people are as likely to be injured crossing a marked crosswalk as crossing the street. It is important to note that just because pedestrians felt safer in crosswalks, they are not. A high level of caution should be used when crossing any street busy enough to have a crosswalk.

1. Almost two-thirds of all intersection dash crash types involve children under age 15. (*Federal Highway Administration, 1996*)

2. Children under age 10 are overrepresented in crashes where the pedestrian was struck while running through an intersection (children under 10 are involved in 19% of all pedestrian crashes and 41% of all “intersection dash” crashes). (*Federal Highway Administration, 1997*)



Pedestrian Lesson 3 – Kindergarten

Crossing the Intersection

Introduction (5 minutes)

Explain: Today we are going to learn how to safely cross an intersection.

Review the steps to crossing a street safely.

1. Stop at the edge.
2. Look to the left, to the right, and to the left again.
3. Walk straight across the street, not at a diagonal.
4. Scan to the left and to the right while crossing.

Discussion topics:

1. What is an **intersection**?
2. Have you ever crossed an intersection?
3. Do you know what a **crosswalk** is?

Instruction (5 minutes)

Show Overhead/Handout K.3.1

Show the pictures on the top half of the handout and explain: These pictures show crosswalks and pedestrian **push-buttons** and signals.

1. Have the students help point out the crosswalks.
2. Have the students help point out the signal buttons.
3. Have the students help point out the pedestrian signals.
4. Mention that there are intersections with all of these features, others with some of these features, and others with none at all.

Show the graphic on the bottom half of the handout and say: Look at the **pedestrian signal**.

1. What does this symbol mean? (It is safe to cross.)
2. What does this symbol mean? (It is not safe to cross.)
3. What does the flashing “Don’t Walk” sign mean? (Do not start crossing. If you are in the middle of the street, continue crossing.)
4. **Even if the light says “WALK”, you still need to look to the left, to the right, and to the left again.**

Show Handout/Overhead K.3.2.

1. You are standing at the X. You want to cross.
2. What is the button on the crossing box used for? (Pushing it makes the light change from “DON’T WALK” to “WALK”.)
3. What symbol will show when it is safe to cross? (The green/ white walking person.)
4. What way will traffic be moving as you cross? Along the solid line or the dotted line? (Along the dotted line; crossing with traffic.)
5. Which way should you look for cars before you cross?
 - (a) Look to the left, to the right, and again to the left.
 - (b) **Look behind you for cars that may be turning into your path.**
 - (c) Scan the intersection again before crossing. (Look for cars approaching from the left and the right; also for cars taking a left or right turn from in front of you.)
6. Why should you look behind you? (The driver behind you may be making a left- or right-hand turn.)

Activity (10 minutes)

For this activity you will need bean bags or cones and the “Walk/Don’t Walk” Sign K.3.3. Before the lesson, gather pictures of different colored cars and attach them to half of the sides of the three boxes. Or draw letters, numbers, or shapes on white pieces of paper (make them thick and visible) and attach them to the sides of the three boxes. If you don’t have boxes, you can use papers with the cars, letters, numbers, or shapes drawn on each side.

Intersection Crossing Activity

1. See “Intersection Crossing Activity” Graphic K.3.4 for possible layout.
2. The teacher holds the “WALK/DON’T WALK” sign at point T.
3. Three helpers hold the boxes, two on each side, one behind.
4. The students practice this step, one at a time.
5. The student who is crossing comes to the edge (the teacher).
6. They stop, then look out around the edge.
7. Then they look to the left, to the right, and again to the left.



8. Next they look over their left shoulder, putting their chin on their shoulder.
9. At this time, the student who is crossing tells the teacher what the symbols were on all three boxes (the helpers should hide the boxes behind their backs when teacher tells them to).
10. The student now tells them what they saw. If there was a picture of a car on any of the boxes (or a symbol that is designated as unsafe), the student should not cross. The student should repeat looking left, right, left, and behind until it is safe to cross.
11. Then the student scans the entire intersection again before crossing.
12. When it is safe, the student crosses, and the two helpers on the sides flip their boxes. When the crosser reaches the teacher, the helpers hide them.
13. The crosser then tells the teacher what the symbols were.
14. Demonstrate the entire activity, and then have each student take a turn.



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Optional Activity (10 to 15 minutes)

1. Handout K.3.5 (*optional*). Have students cut and paste the steps to crossing the intersection in order.
2. Give the kids the Concentration Cards K.3.6 (to cut out and to play concentration with). They should name the symbols when they turn them over (this is a good indoor recess activity).

Conclusion (2 minutes)

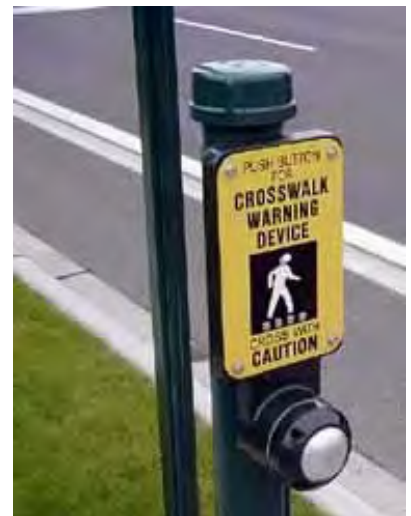
1. What are the steps to crossing an intersection?
2. Which way do you have to look in addition to left, right, and left? (Behind you to the left or right to check for turning cars.)
3. Remind the students that they should not cross the street on their own without the help of an adult.
4. Do not run across the intersection no matter what.



Overhead/Handout K.3.1



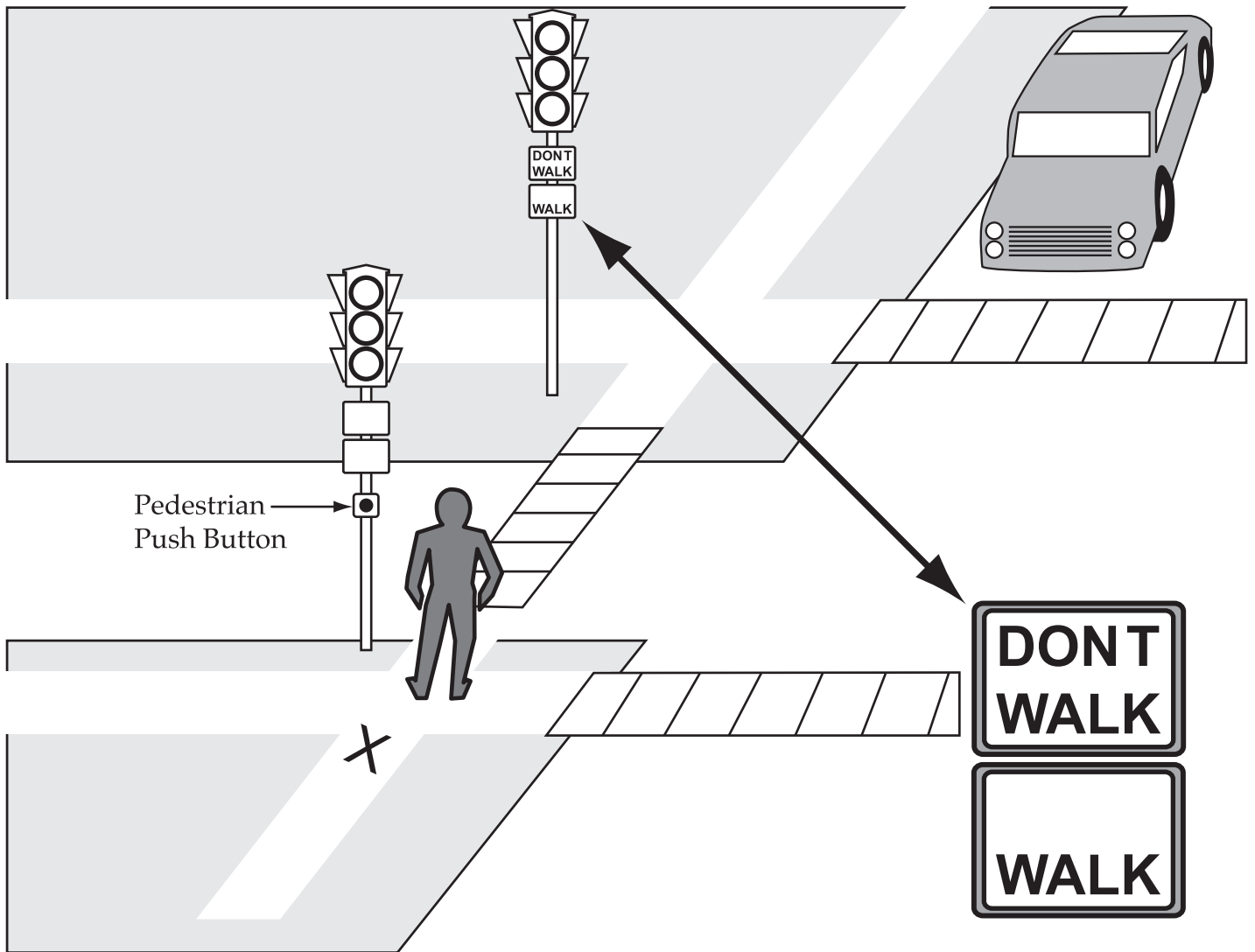
Dan Burden, www.walkinginfo.org



Manual on Uniform
Traffic Control Devices



Overhead/Handout K.3.2

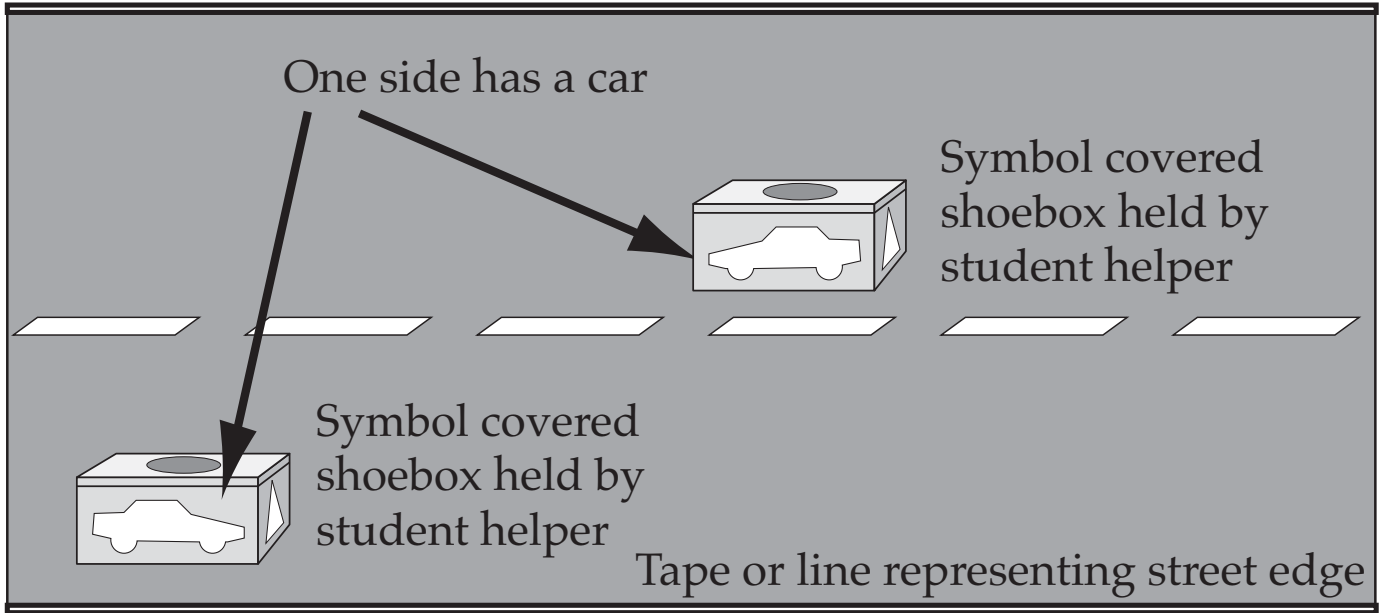


“Walk/Don’t Walk” Sign K.3.3.

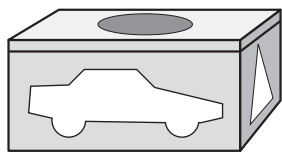


"Intersection Crossing Activity" Graphic K.3.4

(See revised version on hard copy)



Teacher stands here holding the Walk/Don't Walk Sign



Third Student stands here holding a box

- student
- student
- student
- student



“Safe Crossing Steps” Cut-Out Sheet K.3.5

Choose a safe location to cross

Stop at the edge

Look to the to the left and to the right for traffic

Look to the left again

Look behind for traffic if you are at an intersection

Stop at the second edge

Walk, don't run

Scan to the left and to the right for traffic

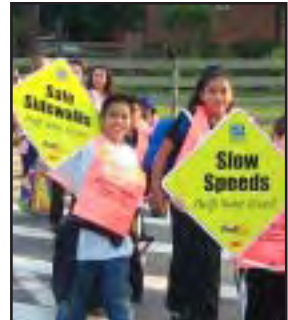
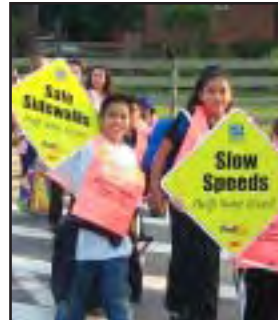
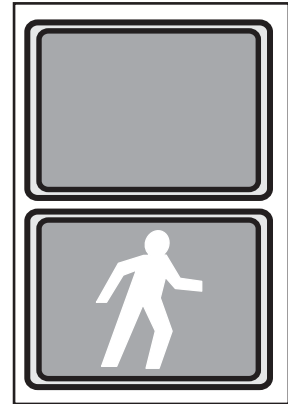
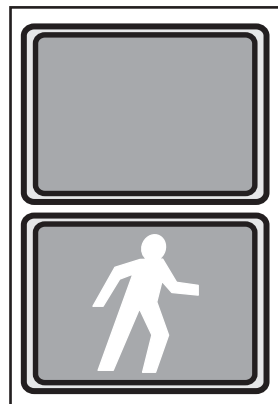
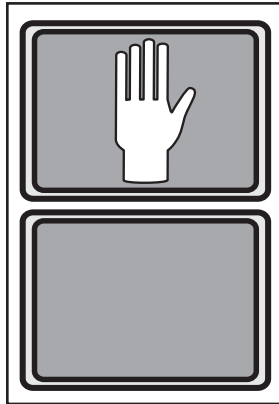
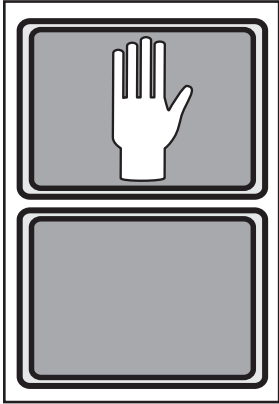
Repeat looking to the left and to the right until it is safe to cross

Go straight across



Concentration Cards K.3.6

(Optional—additional pictures can also be used as cards)





Pedestrian Lesson 4 – Kindergarten

Perils of the Parking Lot

Time: 25 minutes

Objectives: To teach children the basics of walking safely in a parking lot. To teach children how to get out of and into the car safely, and where to walk safely in a parking lot.

Maryland Learner Outcomes:

- Health, Health Behaviors (K-3): Identify rules that promote health.
- Health, Safety and Injury Prevention (K-3): There are behaviors, such as taking precautions and following rules, that are basic to safe daily living.

Materials: Handouts / Overheads K.4.1. and K.4.2; Parent Handout K.4.3.

Suggested Teaching Venue: Classroom or other community venue.

Vocabulary: Parking lot

Lesson Progression:

Introduction
Instruction
Activity
Conclusion

Note to teacher: *Students at this age should not be crossing a parking lot by themselves. This course is designed to teach them the skills they need when they are older and more independent. Please reinforce to them that they should cross a parking lot only with the assistance of an adult.*



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Pedestrian Lesson 4 – Kindergarten

Perils of the Parking Lot

Introduction (2 minutes)

1. *Explain:* Today we will learn how to keep safe in parking lots.
2. Discuss what a **parking lot** is and how it works.

Instruction (15 minutes)

1. Getting out of the car safely. (See Handout K.4.1)
 - (a) If you can, get out of the car on the same side as the driver (Point “B”). They can help you stay safe. They are tall and cars can see them more easily than a child.
 - (b) Don’t jump out of the car or van door. Step out slowly, keeping your body close to the car.
 - (c) If you are on the other side of the car (Point “A”) wait inside the car until your parent comes around to let you out. Take their hand and walk together through the parking lot. Do not go over into the next parking space.
 - (d) Don’t run or chase someone through the parking lot. Cars cannot see you as well as a tall adult.
2. Where to walk in a parking lot. (See Handout K.4.2)
 - (a) If you can, walk on a sidewalk or median to the store (Point “A”).
 - (b) If you can’t use the sidewalk or median, walk two steps away from the rear bumpers of the line of cars. (Point “B”).
 - (c) Do not walk down the middle, you are in the traffic line (Point “C”).
 - (d) Do not walk right next to the bumper of the cars. This is too close to the bumpers and a car can reverse and not see you. (Point “D”).
3. How to get in safely.
 - (a) Enter on the same side as the driver if you can. The adult can be seen by cars while a child may not. The adult can also pull a child out of danger. Also, the child will have less chance to do something dangerous like walk into an empty space.
 - (b) Stay close to the door as you wait to be unlocked.

(c) Get in and close the door quickly. Do not leave the door open or it could be hit by a car moving in the spot next to you.

(d) Make sure you are buckled in safely before the driver starts the car.

(e) *Don’t ever chase a rolling toy into the car lane or into an empty spot. As the child is bending down to get the object, he or she is almost invisible to a driver pulling into an empty spot or down the car lane.*

Activity (5 to 8 minutes)

1. Demonstrate on car outside or pretend car (designated by a tape rectangle on the floor with chairs inside) how to get out and where to stand while waiting for their parent.
2. Have each student practice this with an assistant acting as the parent.

Conclusion (2 minutes)

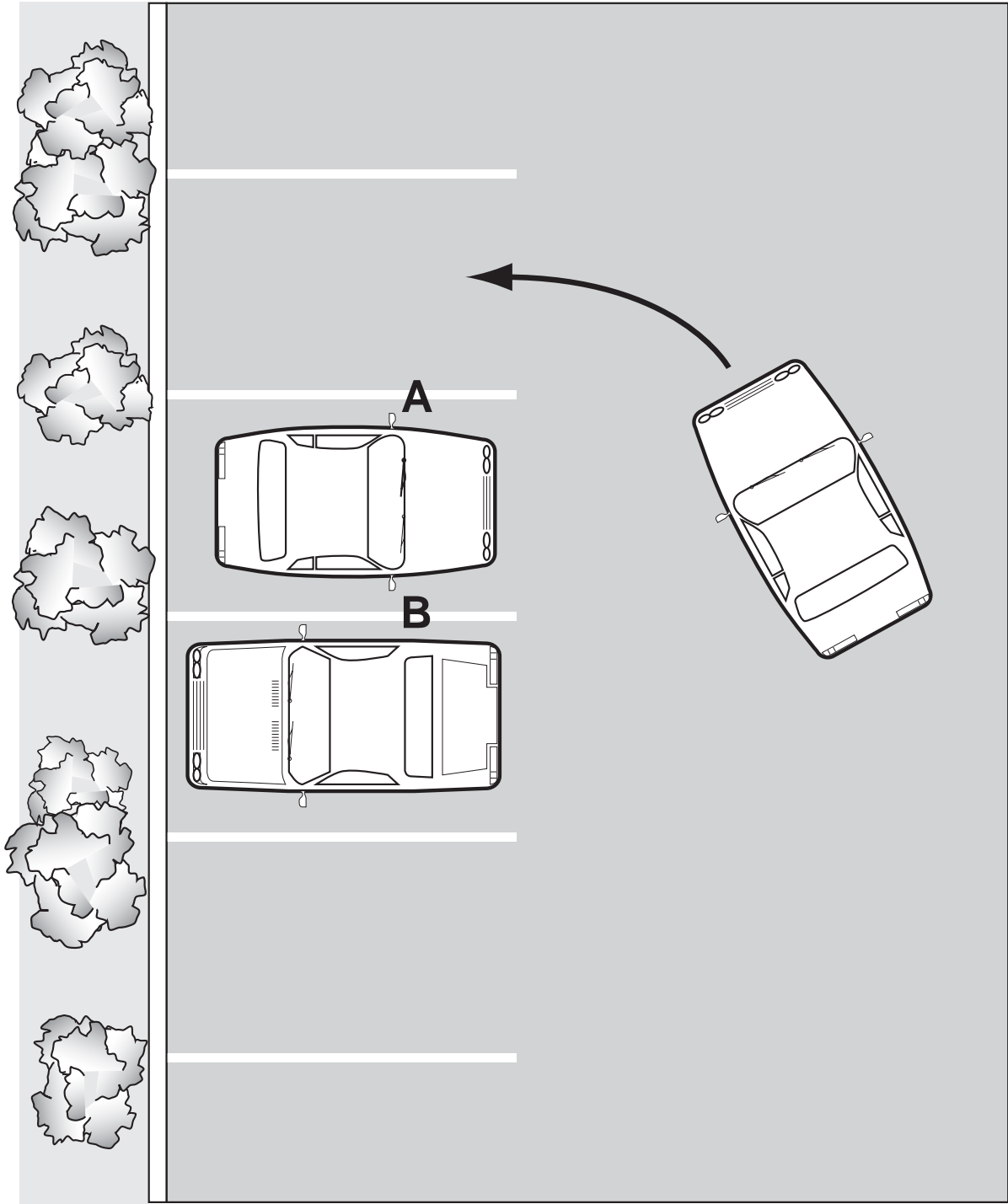
1. Review the steps for getting in and out of the car safely and where to walk in the parking lot.
2. Pass out Parent Handout K.4.3. for students to take home and discuss with their parents.



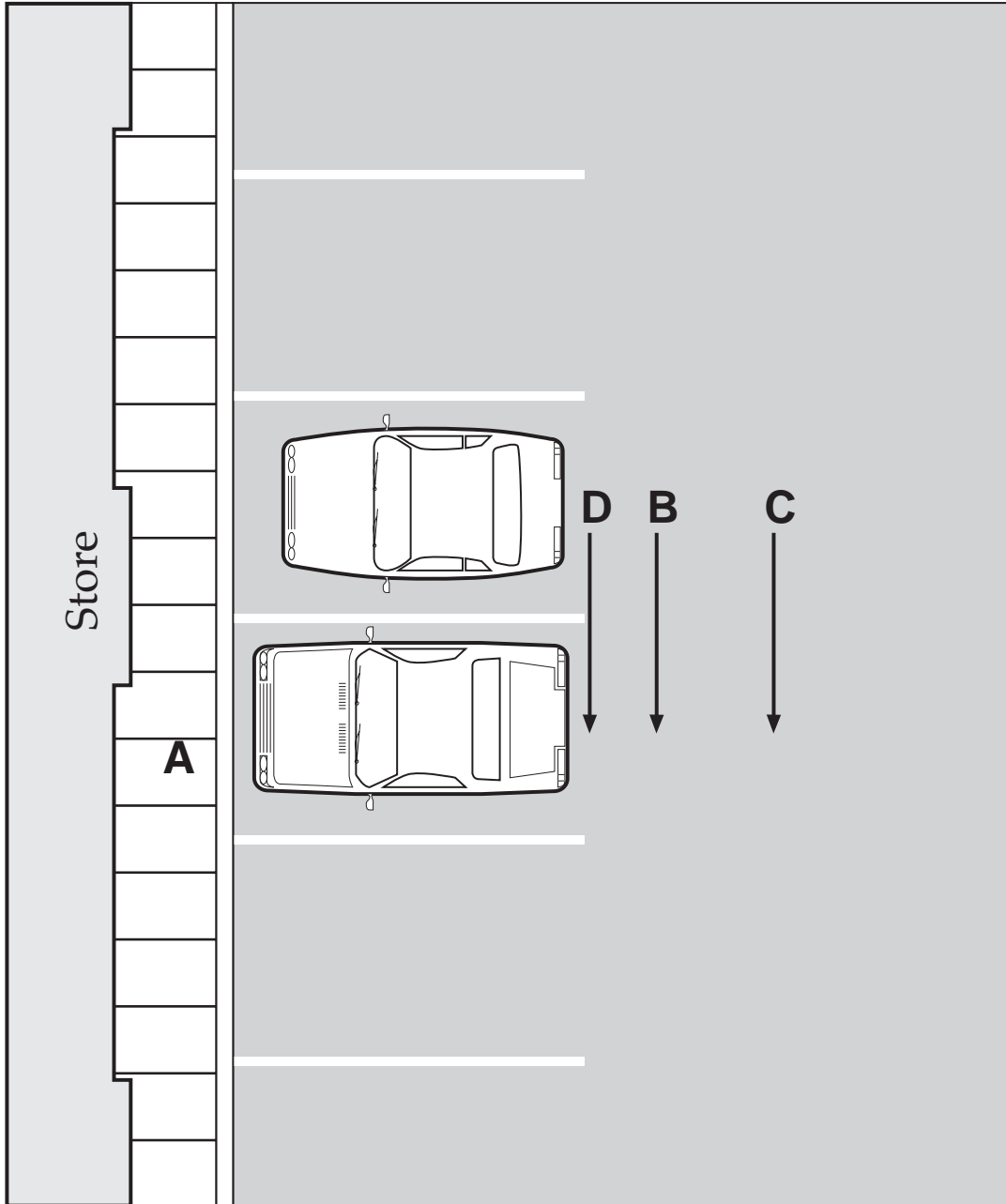
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Overhead/Handout K.4.1



Overhead/Handout K.4.2



Parent Handout K.4.3.

Ask your child about getting in and out of a car safely.

Parent list of safety tips for entering and exiting a car in a parking lot:

1. If you can, have your child get out of the car on the same side as you. Other drivers can see you more easily than your child.
2. Tell your child not to jump out of the car or van door. Have them step out of the car slowly, keeping their bodies close to the car.
3. If your child must exit on the opposite side, have them stay close to the car and wait for you to reach them. Take your child's hand and walk together through the parking lot.
4. Do not let your child walk over into other empty parking spaces.
5. Do not let your child run or chase someone through the parking lot. Cars cannot see them as well as a tall adult.
6. If you can, have your child walk on a sidewalk or median in the parking lot.
7. Walk two steps away from the rear bumpers of the line of cars if you cannot walk on a sidewalk or median.
8. Do not walk down the middle of the traffic lane.
9. Do not walk right next to the bumper of the cars; this is too close because a car can reverse and not see you.
10. Have your child get in and close the door quickly because it could be hit by a car moving in the spot next to you.
11. Make sure all passengers are buckled in safely before you start the car.
12. Never let your child chase a rolling toy into the car lane or into an empty spot. As the child is bending down to get the object, he or she is almost invisible to a driver pulling into an empty spot or down the car lane.





Pedestrian Safety Lesson 5 - Kindergarten

Traffic in TINYTOWN

Time: 35 Minutes

Objectives: To put into practice the safe pedestrian practices learned over the year.

Maryland Learner Outcomes:

- Health, Safety and Injury Prevention (K-3): There are behaviors, such as taking precautions and following rules, that are basic to safe daily living.

Montgomery County Physical Education Indicators:

- Distinguish between straight, curved and zigzag pathways while traveling in various ways. (K)
- Work cooperatively with school mates of all ability levels. (K)

Materials: TINYTOWN Layout Diagram K.5.1; “Walk” and “Don’t Walk” signs K.5.2 (Optional); Play money K.5.3; TINYTOWN Pedestrian Safety Rules K.5.4 (Optional)

Suggested Teaching Venue: In the P.E. gymnasium or a marked area outside. This can be done as an integrated learning plan. The lesson is not limited to being taught in school—it may be offered through a club, community group, or other local organization.

Plan Ahead: See the graphic for layout in the gymnasium or outdoor area. Set up the TINYTOWN layout before the lesson (the program trailer has rope and chalk available).

*Feel free to modify the layout to fit outdoor or indoor.

*This lesson integrates well with the bicycling lessons.

Note: the setup for this may be assisted by the support person in charge of the bike trailer for your district.

Use the wooden cut-out cars and trucks and the crosswalk, “Walk”, and “Don’t Walk” signs from the program trailer (Optional). If you do not have access to the trailer, create your own cardboard cut-out cars and trucks to use as props during the activity (Optional). Create poster of pedestrian safety rules (Optional). Photocopy enough of the money to pass out enough dollars for each student (Optional).

Vocabulary: Crosswalk sign; police; stoplight.

Lesson Progression:

Introduction

Activity

Note to teacher: This activity is geared towards the students showing all the skills they have learned in the basic Pedestrian Safety Course. Students are to navigate the streets of a model town and buy things from four different stores.

1. 51% of crashes involving pedestrians under age 15 were between 2 p.m. and 6 p.m., which is when children are walking home or playing after school. (*Federal Highway Administration, 1996*)

2. The highest rate of pedestrian injuries (injuries / population) in the United States is for children aged 5 to 9, followed by children aged 10 to 15. (*Insurance Institute for Highway Safety, 1999*)



3. 74% of pedestrians under age 10 were judged solely responsible for the pedestrian crash, while 60% of pedestrians aged 10 to 14 and only 33% of pedestrians over age 14 were solely responsible. (*Federal Highway Administration, 1996*)

Pedestrian Lesson 4 – Kindergarten

Traffic in TINYTOWN

Introduction (1 minute)

Explain: Today we are going to see how safely we can travel while shopping in TINYTOWN.

Activity (35 minutes)

1. See TINYTOWN Layout Diagram K.5.1 for a basic setup idea. Set up the TINYTOWN layout before the lesson (the program trailer has rope and chalk available).
2. Break the class into groups of about 4 students.
 - (a) One group acts as **imaginary cars or barriers** (they can ride scooters, walk holding an imaginary wheel, or stand at the side of the street like a mailbox or tree). The students acting as the cars can hold the wooden cut-outs of cars and trucks from the program trailer, or they can create cardboard cut-outs to use as props.
 - (b) One group acts as the **crosswalk signs** at two different locations.
*Option: teacher or students can create cardboard crosswalk signs to use as props.
 - (c) One group acts as the **“traffic police”**. They look for unsafe behavior and ticket those who do it. You can determine the fine for unsafe behavior ahead of time.
 - (d) One group acts as the **store owners**. They will take money from the pedestrians in exchange for cards representing goods.
 - (e) *Optional:* One group can act as the **stop-lights**. They can use the “Walk” and “Don’t Walk” signs from the trailer, or they can create cardboard cut-outs of the Sign Templates K.5.2 to use as props.
 - (f) The remaining students can be divided into groups of four **“pedestrians”**.
3. *Optional:* Hand out play money to each of the pedestrians (bring your own or copy and cut out the Play Money K.5.3). Use single dollar bills so that the kindergarteners can count them and keep the prices of the goods small (1 to 5 dollars)

4. Each member of a pedestrian group will start at a different store.
5. Students have to travel safely and cross the street safely (see “TINYTOWN Pedestrian Safety Rules” K.5.4.)
6. The team gets all their goods back to the teacher with the least number of safety tickets wins (or the team with the least number of safety tickets when the teacher blows the whistle after 2 to 3 minutes).
7. At the end of the round, have teams rotate so that everyone gets to play several different roles.

Moderate the pedestrian groups as they travel from store to store buying a goods card from each store. If the class is large, teacher may want to have one group sit on the side for a turn.

At any time during the activity, teacher may choose to blow a whistle or say “stop” to have all children freeze where they are. This is done so that the teacher can point out an example of a safe or unsafe behavior that has occurred or is developing.

TINYTOWN Pedestrian Safety Rules

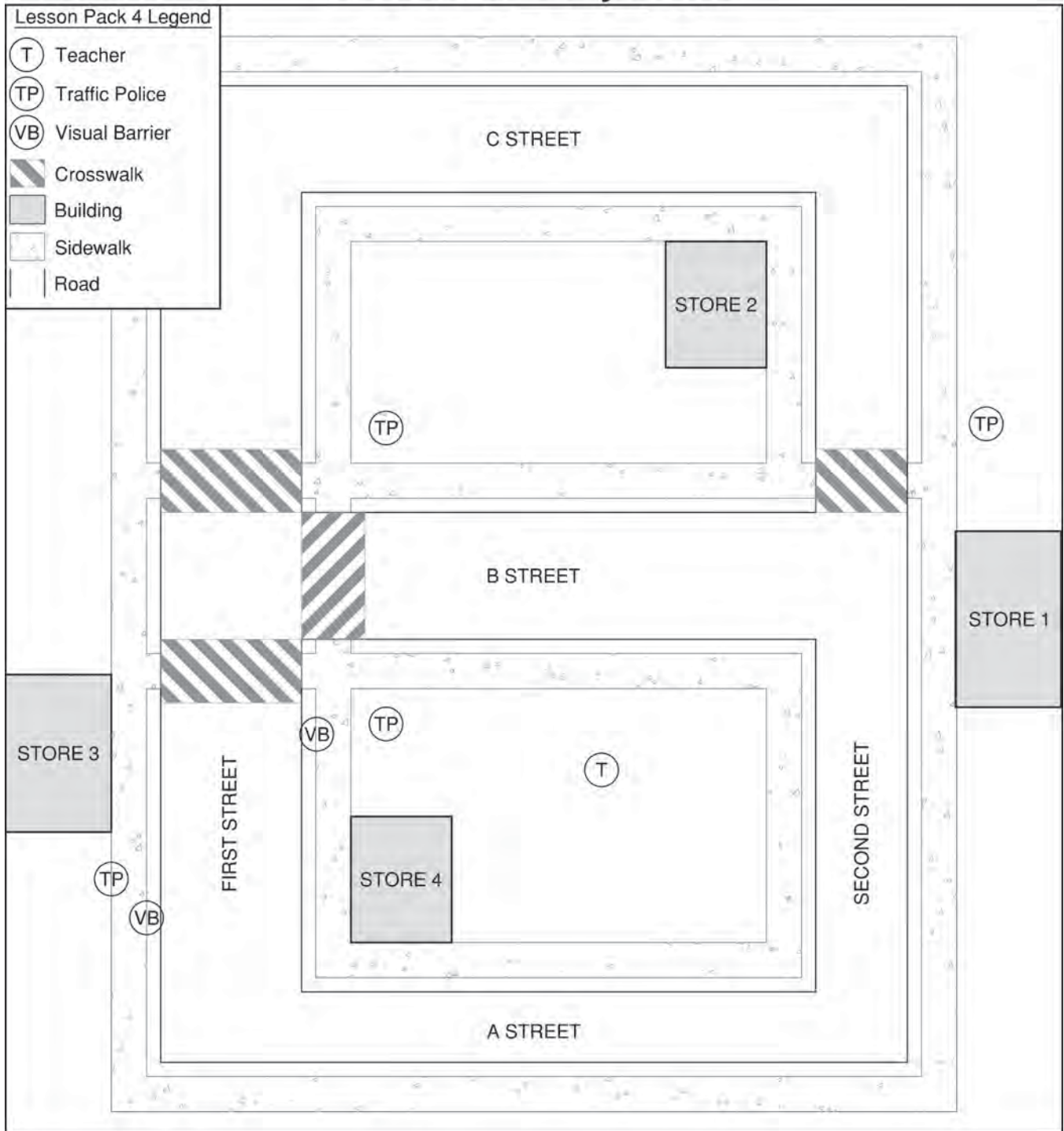
The teacher may want to create several copies of the TINYTOWN Pedestrian Safety Rules 2.5.4 before the activity and then display them somewhere in TINYTOWN.

1. No running.
2. Cross at the crosswalk if there is one.
3. Stop at edge; look to the left, to the right, and again to the left; scan as you cross the street. Look behind when at intersections.
4. Wait for the crosswalk signal (students hold up cards for walk don’t walk, flap them before they change).
5. Cross in the crosswalk or in a straight line.
6. Watch for dangerous drivers.
7. Do not try to outrun the car.
8. Watch for hazards.



Tinytown Layout Diagram K.5.1

Traffic In Tinytown!



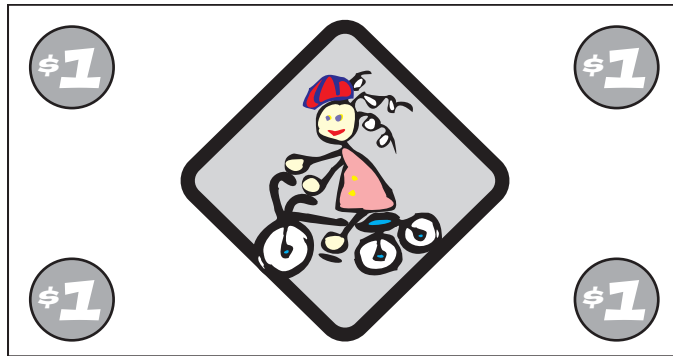
Make roads with blue tape or ribbons, bean bags, disks or cones can be used as well. Intersections can be mats or blue tape.



Sign Templates K.5.2



Play Money K.5.3



Pedestrian Safety Rules in Tinytown

1. No running.
2. Cross at the crosswalk if there is one.
3. Stop at edge; look to the left, to the right, and again to the left; scan as you cross the street. Look behind when at intersections. If it is unsafe to cross, begin this process over again, and cross only when it is safe.
4. Wait for the crosswalk signal.
5. Cross in a straight line across the street when there is not a crosswalk.
6. Watch for dangerous drivers.
7. Do not try to outrun the cars.
8. Watch for hazards.





Pedestrian Safety Lesson 6 - Kindergarten

Neighborhood Walkabout

Time: 35 to 45 minutes

Objectives: To have real life experience crossing streets and intersections with the teacher to evaluate and correct student practices.

Maryland Learner Outcomes:

- Health, Health Behaviors (K-3): Compare behaviors that are safe to those that are risky.
- Health, Health Behaviors (K-3): Describe ways to avoid and reduce threatening or unsafe situations.

Montgomery County Physical Education Indicators:

- Distinguish between straight, curved and zigzag pathways while traveling in various ways. (K)
- Work cooperatively with school mates of all ability levels. (K)

Materials:

Safe Pedestrian Practices Review Sheet K.6.1

Suggested Teaching Venue: Outdoors, on neighborhood streets with light traffic.

Note to Teacher: You may want to invite a police officer or other community leader to participate in the Neighborhood Walkabout, and combine this lesson with Lesson 7. Make sure to have parents sign the permission slip for leaving school property before doing this activity.



Planning

1. Divide students into sizable groups of 3 to 5. Each group should have an adult who has reviewed Safe Pedestrian Practice Review Handout K.6.1. This will help the adult guide the students in their crossing steps.
2. It may also be a good idea to review some of the basics of crossing streets and intersections from the handout with the students before the trip is made.
3. Have the students make a map of where they start from and where they are going. Either have the students draw the neighborhood streets on a map or provide a street map of the neighborhood for the students to draw on.
4. Have a few specific landmarks for the students to go to on the route. These may be stores or special houses they can go into or view.
5. Have the students make symbols on their map showing danger spots, intersections, sidewalks and the special sites. The students in each group can agree on their symbols and make a legend on their map.

Special Options

1. Have the students draw a picture of something they saw on their Walkabout.
2. Have the students make happy face or sad face symbols on the map showing where they felt safe on the walk and scared of traffic on the walk. Then they can make a chart of how many happy and sad faces the group made.



www.pedbikeimages.org
Dan Burden



Safe Pedestrian Practices Review Sheet K.6.1

Safe Pedestrian Practices Covered in Earlier Lessons

Crossing a Street

1. Stop at the curb (or first edge). If there is a second edge, walk to it and stop.
2. If there is a visual barrier, like a car, find a better spot to cross.
3. Look to the left, to the right, and again to the left for traffic.
4. Cross only when it is safe, and scan to the left and to the right for vehicles as you cross.
5. Walk in a straight line to the other side of the street, until you are out of the way of traffic.

Do's and Don'ts for Crossing the Street

1. Don't chase a ball into the street
2. Don't cross from between two cars
3. Don't cross alone.
4. Don't cross at an angle.
5. Don't run.
6. If a car passes while you are looking left and right, start again.
7. Cross with an adult.

Crossing an Intersection

1. Use the crossing button if the intersection has a traffic signal (and if a button is available)
2. Wait for the walking person or "WALK" symbol before crossing
3. Look to the left, to the right, again to the left, and then BEHIND you before crossing
4. Scan to the left, right, front, and behind as you cross.
5. Stop if you see a car turning into the crosswalk. Do not try to beat it.
6. Stay in the crosswalk, if there is one.
7. When finished crossing, step up onto the curb

Do's and Don'ts for Crossing the Intersection

1. Don't run across the intersection.
2. Wait for any turning car to pass. There is more room behind the car than in front of it.
3. Don't cross alone.
4. Don't cross at an angle.
5. Cross with an adult.





Pedestrian Lesson 7 - Kindergarten

Special Speaker

Time: 25 to 45 minutes

Objective: To have an expert who deals with traffic accidents warn children about the dangers concerning unsafe crossing practices.

Maryland Learner Outcomes:

- Health, Health Behaviors (K-3): There are people, places and situations that may be hazardous to one's health and safety.
- Health, Health Behaviors (K-3): Identify rules that promote health.

Materials: Safe Pedestrian Practice Review Sheet K.7.1. Other materials, such as videos, handouts, or props are at the discretion of the speaker.

Suggested Teaching Venue: Large Classroom, auditorium, or outside area. This may be a good lesson to offer during the winter if no outdoor activities are incorporated.



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Planning

Types of people who make good speakers

1. Children react very favorably to people in uniforms. Policemen, Emergency Medical Technicians, Ambulance volunteers, Firemen, and local Sheriffs all deal with pedestrian accidents often. They can speak with experience and authority about what they have seen.

Room considerations

1. Please make sure that the speaker will have enough room to demonstrate safe and unsafe practices. Check with them before hand to see if they would like some helpers to act out special accidents or dangerous situations that they have seen.
2. Ask if they would like to have a sample street marked out for them in the room or the outside area for them to demonstrate what they have seen happen. Having them reenact an incident or two can help the students visualize what had happened. Ask them if they will need any props to do this with. Teachers may want to arrange having older kids demonstrate or have some of the students in the class chosen for demonstrations beforehand.

Speaker should review what has been taught in previous lessons (Use Safe Pedestrian Practices Review Sheet K.7.1)

1. Teachers should discuss the major points of previous pedestrian lessons related crossing the street, intersections, and parking lots and school bus safety with the speaker. Make sure to review the do's and don'ts on the handout. Sometimes speakers have their own ideas about where to cross which may not really be the safest for students to attempt.
"Run as fast as you can across the street" may seem acceptable to an adult, but is not safe at all for a small child to do.
2. The speaker may want to look at the different driver descriptions found in Lesson 3, Crossing the Intersection (1st or 2nd Grade lessons). This may help them remember some dangerous situations that they have encountered.

Instruction

1. The speaker should introduce themselves, talk about their role in the community, and talk about how their job is related to pedestrian safety.
2. Have the speaker review the major points of the previous lessons, and have the speaker reinforce the ideas about chasing balls into the street and the importance of crossing with an adult.
3. The speaker can then give demonstrations, show props, or do other activities that they think can help teach the kids about pedestrian safety.



Safe Pedestrian Practices Review Sheet K.7.1, page 1

Safe Pedestrian Practices Covered in Earlier Lessons

Crossing a Street

1. Stop at the curb (or first edge). If there is a second edge, walk to it and stop.
2. If there is a visual barrier, like a car, find a better spot to cross.
3. Look to the left, to the right, and again to the left for traffic.
4. Cross only when it is safe, and scan to the left and to the right for vehicles as you cross.
5. Walk in a straight line to the other side of the street, until you are out of the way of traffic.

Do's and Don'ts for Crossing the Street

1. Don't chase a ball into the street
2. Don't cross from between two cars
3. Don't cross alone.
4. Don't cross at an angle.
5. Don't run.
6. If a car passes while you are looking left and right, start again.
7. Cross with an adult.

Crossing an Intersection

1. Use the crossing button if the intersection has a traffic signal (and if a button is available)
2. Wait for the walking person or "WALK" symbol before crossing
3. Look to the left, to the right, again to the left, and then BEHIND you before crossing
4. Scan to the left, right, front, and behind as you cross.
5. Stop if you see a car turning into the crosswalk. Do not try to beat it.
6. Stay in the crosswalk, if there is one.
7. When finished crossing, step up onto the curb

Do's and Don'ts for Crossing the Intersection

1. Don't run across the intersection.
2. Wait for any turning car to pass. There is more room behind the car than in front of it.
3. Don't cross alone.
4. Don't cross at an angle.
5. Cross with an adult.



Review Sheet K.7.1, page 2

Walking in a Parking Lot

1. If possible, get out on the same side of the car as an adult.
2. If you must exit on the opposite side, stay close to the car and wait for an adult to reach you.
3. Do not jump out of the car or van door.
4. Hold on to your parent's hand when walking through the parking lot.
5. Do not walk into empty parking spaces.
6. Do not run or chase someone through the parking lot.
7. If possible, walk on a sidewalk or median in the parking lot.
8. Walk two steps away from the rear bumpers of the line of cars if you cannot walk on a sidewalk or median.
9. Do not walk down the middle of the traffic lane.
10. Do not walk right next to the bumper of the cars.
11. When getting into the car, close the door carefully, but quickly because it could be hit by a car moving in the spot next to you.
12. Make sure to buckle your seatbelt before the car starts.
13. Never chase a rolling toy into the car lane or into an empty parking space.

Being Safe Around the School Bus

1. Stay on the sidewalk or away from the street when waiting for the bus.
2. Never run into the street or chase a ball or object into the street especially if you are playing with friends.
3. Do not approach the door of the bus until the bus driver opens the door and says that it is safe board the bus.
4. Always stay in your seat during the bus ride.
5. Never stand in the danger zone that is inside the crossing bar area on the front side of the bus.
6. Never stand in the danger zone behind the bus.
7. Never stand in any of the other danger zones on the sides of the bus.
8. When you get off the bus and need to cross the street you should take 5 big steps away from the door, then turn left, and take 10 big steps past the front of the bus. Then you should look up at the bus driver and walk towards the street in front of the bus. When you reach the second edge of the bus, you should look to the left, to the right, and again to the left before crossing the road.



1st Grade Pedestrian Safety Lessons



Toole Design Group

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Pedestrian Lesson 1 – 1st Grade

Crossing Safely

Time: 30 Minutes

Objectives: To understand what a hazard is and what hazards can make it unsafe to cross the street. To identify hazardous areas when walking. To understand the importance of the second edge.

Maryland Learner Outcomes:

- Health, Health Behaviors (K-3): Compare behaviors that are safe to those that are risky.
- Health, Safety and Injury Prevention (K-3): There are behaviors, such as taking precautions and following rules that are basic to safe daily living.
- Writing, Write to Inform (PreK-3): Write descriptions that move through a logical sequence of events.

Materials: Narrow and Wide Road Overhead/Handout 1.1.1; Crossing Locations Overhead/Handout 1.1.2; Safest Place to Walk Overhead/Handout 1.1.3; The Second Edge Overhead/Handout 1.1.4; Visual Barriers Activity Setup Diagram 1.1.5; Large pieces of paper; 2 shoeboxes; “Crossing the Street Song” 1.1.6 (optional); Overhead projector (optional).

Suggested Teaching Venue: There are several possibilities for implementation, including the home classroom during a health unit, physical education class, or any other indoor or outdoor classroom situation. The lesson is not limited to being taught in school—it may be offered through a club, community group, or other local organization.

Plan Ahead: Create overheads or copies of Overhead/Handout 1.1.1, Overhead/Handout 1.1.2, Overhead/Handout 1.1.3, and Overhead/Handout 1.1.4. Make copies of “Crossing the Street Song” 1.1.6 (optional) for each student. Set up for the Visual Barrier Activity before the lesson. *You may want to coordinate with music teacher on teaching the “Crossing the Street Song” if you choose to use it.

Lesson Progression:

Introduction
Instruction
Activity
Conclusion

Vocabulary: first edge; second edge; hazard; visual barrier; crosswalk

Note to teacher: This lesson is geared towards teaching first graders. It reviews the basics of crossing the street and introduces some of the dangers involved in crossing the street. It is important to note that children at this age are not ready to cross streets on their own. They should be encouraged to cross the street only with the help of an adult.

1. 50% to 60% of pedestrian injuries to children aged 5 to 9 are “mid-block dart-out” crash types. (*Federal Highway Administration, 1996*)

2. Pedestrians under age 10 are overrepresented in crashes where contributing factors are “ran into street”, “ran from between parked vehicles”, and “playing in street”. (*Federal Highway Administration, 1996*)



Pedestrian Lesson 1 – 1st Grade

Crossing Safely

Introduction (5 minutes)

Explain: Today we are going to learn about pedestrian hazards when crossing the street.

(You may want review the concepts taught in the kindergarten lesson—edges, looking left-right-left, and scanning as you cross)

Review these topics.

1. What is an edge? (It can be a curb or line at the edge of the vehicle lane. It is a place near the road where cars do not go.)
2. Which way do you look before crossing the street? (Left, right, left)
3. What should you do while crossing the street? (Scan left and right)
4. Do you cross in a straight line? (Yes.)
5. Do you run or walk? (Walk)

Instruction (10 minutes)

Discuss the following questions.

1. What is a **hazard**? (something that could be dangerous)
2. What types of hazards exist for pedestrians? (Moving objects, such as cars, trucks, busses, bicycles, etc. Also, **visual barriers**, such as trash cans, bushes, parked cars, electric boxes, mailboxes, fences, trees, etc.)
3. Have you ever been at a movie and someone tall take the seat in front of you? Did it make it hard to see? That is called a *visual barrier*. They block the view of what you want to see.
4. What could you do? (Move to a seat with a clear view)
5. If you are at a roller rink, what could be some hazards (dangers) you could face? (running into people, fast skaters, somebody comes from the wall and is in your way, stuff on the floor.)

Explain: Today we are going to look at some hazards when crossing the street.

Show Narrow and Wide Road Overhead/Handout 1.1.1

1. Which road would you rather cross? (Road A, it is a narrower road. You may have to hurry across B because it is very wide.)

Show Crossing Location Overhead/Handout 1.1.2

1. From which picture would you rather cross the street: A, B, or C? (B, nothing blocks your view—there are no visual barriers.)
2. Is it safe to cross at C? (No, never between two cars)
3. What would you do if you were the person between two cars (move until you are clear. Refer back to being at the movies.)
4. *Emphasize: **Never cross a street from in between two cars.***

It is like roller-skating with you hands up at the side of your eyes, you can't see to the sides. And, whenever you need to cross a street, you should always use a **crosswalk**, if there is one nearby.

Show Safest Place to Walk Overhead/Handout 1.1.3.

1. Which side of the street is safer for walking? (The side with a sidewalk.)
2. If you could not cross the street to the sidewalk, which way would you walk along the opposite side—with the cars coming towards you or from behind you? (Walk along the grass with the cars are coming towards you. Always walk facing traffic. Remember: Bikes ride with traffic.)

Show The Second Edge Overhead/Handout 1.1.4.

Demonstrate the following steps to teach about the second edge.

1. If you have to cross where there is a visual barrier like a car, there are a few safety steps that you should follow.
 - (a) Stop at the **first edge** (A) (the curb).
 - (b) Make sure the car is not ready to back up (clues: engine on, front or back lights on, driver in the seat.) If it is, find another spot, do not cross.
 - (c) Walk to the **second edge** (B) A good idea is to do the car touch. Touch the corner of the car with your arm straight out to your side.
 - (d) Now look left, right, and left again, and then cross when it is safe.



Activity (5 to 10 minutes)

Visual Barriers Activity

1. Refer to the Visual Barriers Activity Setup Diagram 1.1.5.
2. Use a tall object or select volunteers to act as a visual barrier (a car).
3. Mark the first edge of the street on the floor with rope or tape.
4. Have each student line up near the visual barrier and approach the barrier one at a time.
5. The student should stop at the first edge, walk to the second edge and then look left, right, and left again.
6. The student should cross and continue to scan left and right as they are crossing.
7. Demonstrate the activity, and then have each student take a turn.

Optional: Have the students pick one of the dangers they talked about and draw it or talk about it with a parent and write a story about it.

Poster Format

1. Show one of the dangers in crossing the street.
2. Draw a picture of the danger.
3. Write the safe way to avoid the danger at the bottom of the poster.

Letter Format

1. Write a letter to a friend telling them of one of the dangers in crossing the street.
2. Explain the safe way to avoid the danger.

Conclusion (2 to 5 minutes)

1. What are some of the dangers in crossing the street? (Hidden drives, curves, hill, blocked views, hard to see clothing, distractions such as walkmans.)
2. (Optional) Have students sing the Crossing the Street Song 1.1.6. It may be a good idea to speak with the music teacher to incorporate this.
3. Remind the students that they should not cross the street on their own without the help of an adult.

Some closing discussion topics:

1. Should you cross the street wearing headphones (or walkman)? (No, you will be distracted from listening to traffic.)
2. Should you skateboard across the street? (No, you may fall or not have enough control to avoid cars.)
3. Is it safe to roller blade across the street? (No, you may fall or not have enough control to avoid cars.)
4. Why is it more dangerous to cross at night? (It is very difficult for drivers to see you, even if it is easy for you to see their headlights.)
5. What kind of clothing should you wear when crossing the street? (Bright-colored.)
6. Should you chase a ball into the street? (Never.)



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“Narrow and Wide Road Overhead/Handout 1.1.1



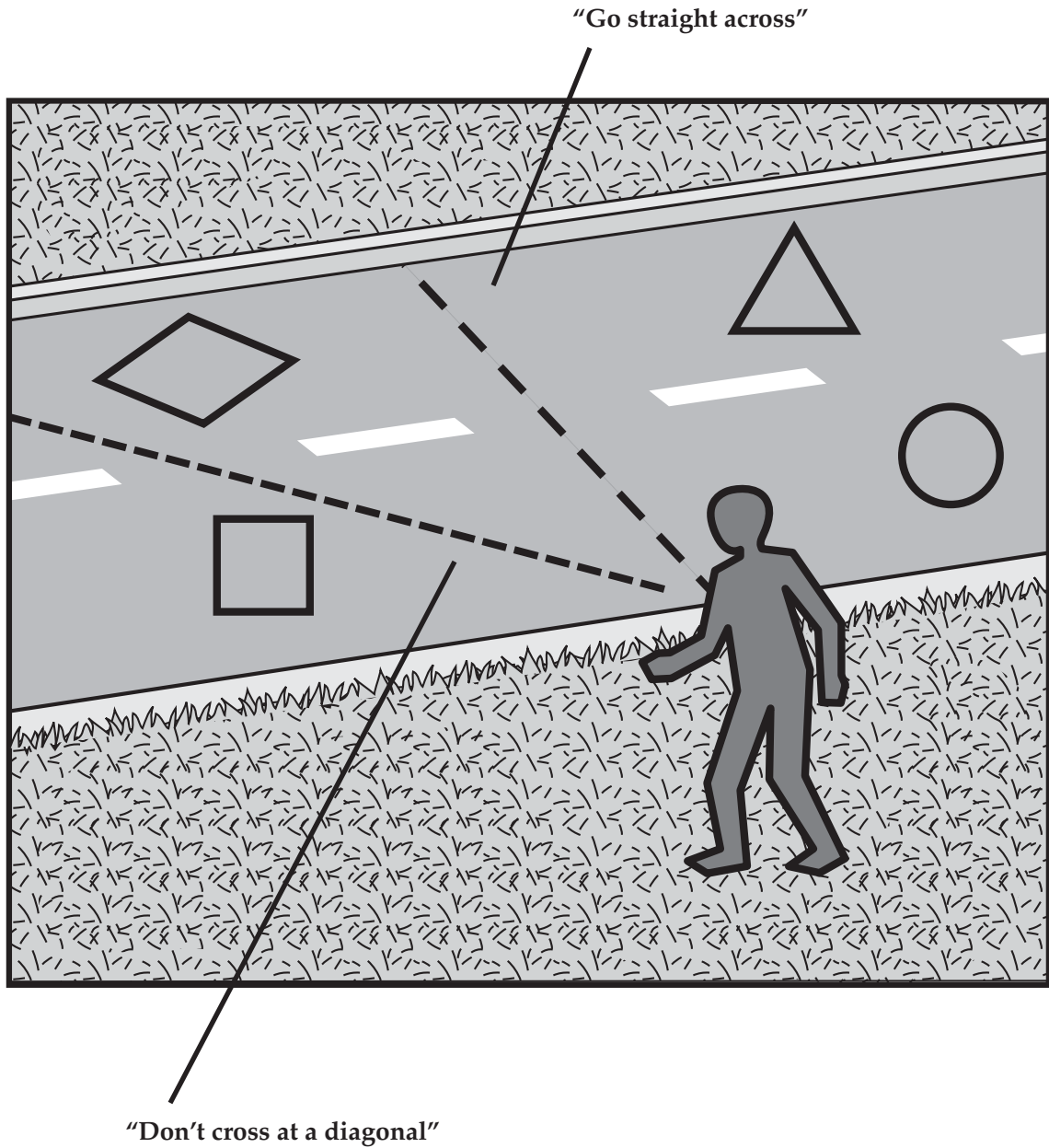
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“Crossing Locations” Overhead/Handout 1.1.2



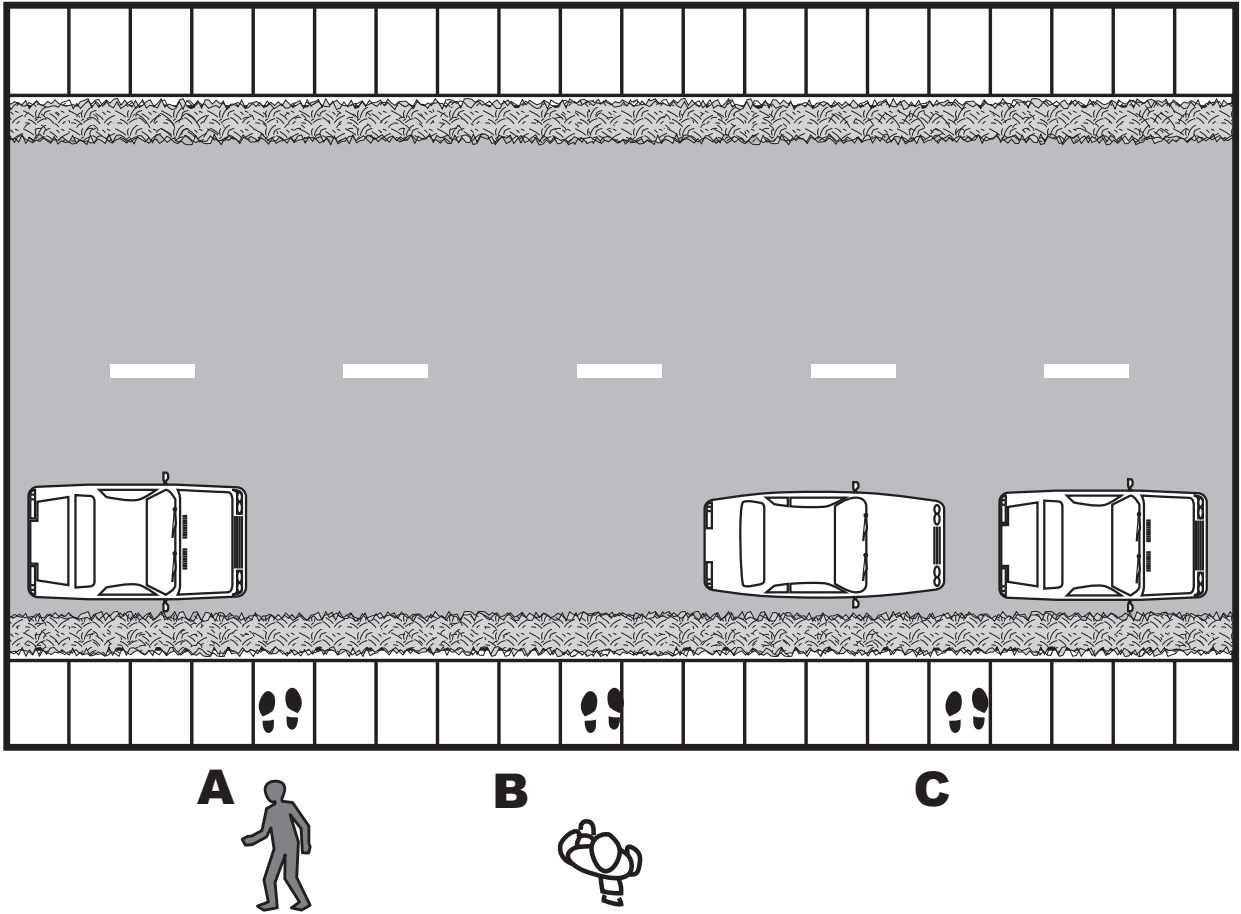
“Safest Place to Walk” Overhead/Handout 1.1.3



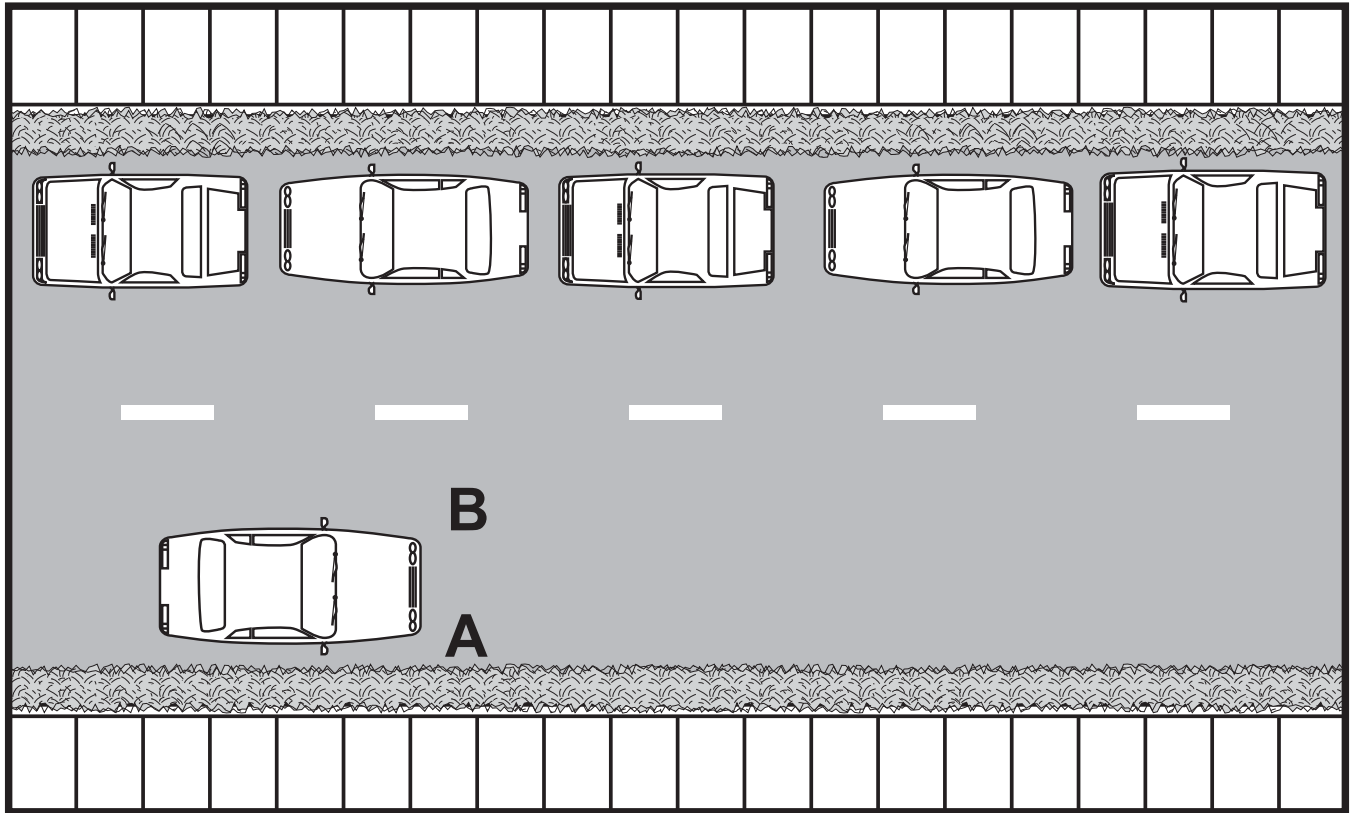
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"The Second Edge" Overhead/Handout 1.1.4

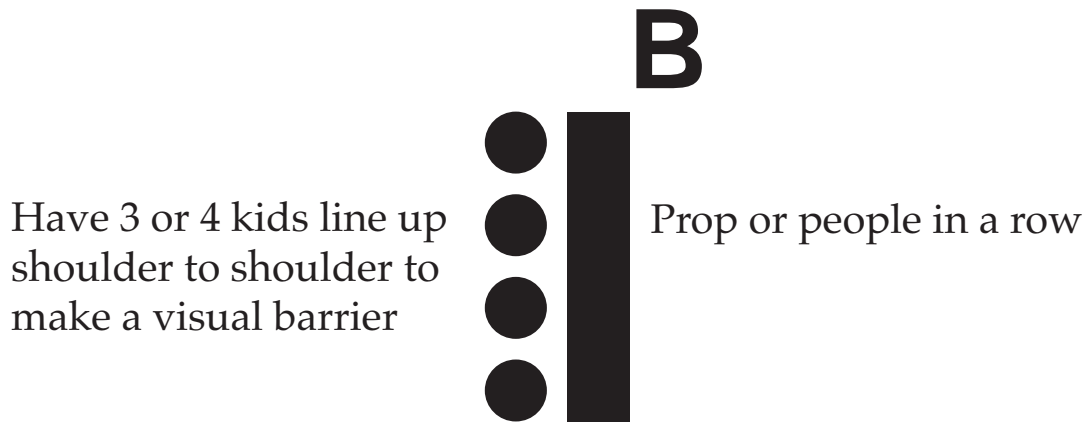


“Visual Barrier Activity Setup” Diagram 1.1.4



“Visual Barriers Activity Setup” Diagram 1.1.5

Tape/Rope (Edge of Street)



Tape/Rope (Edge of Street)



Crossing the Street Song 1.1.6
(Optional)

Crossing the Street Song

Sung to the Tune of London Bridge

Here we go, across the street
Across the street
Across the street
Here we go, across the street
We cross safely!

First we stop at the edge
At the edge
At the edge
First we stop at the edge
We cross safely!

Now we're looking left, right, left
left, right, left
left, right, left
Now we're looking left, right, left
We cross safely!

Now we're going straight across
straight across
straight across
Now we're going straight across
We cross safely!

As we cross, we still look
we still look
we still look
As we cross, we still look
WE CROSSED SAFELY!!!





Pedestrian Lesson 2 – 1st Grade

Bus Safety

Time: 30 Minutes

Objectives: To understand the need to be a safe pedestrian around the bus. To learn how to exit a bus and cross the street safely.

Maryland Learner Outcomes:

- Health, Health Behaviors (K-3): Compare behaviors that are safe to those that are risky.
- Health, Health Behaviors (K-3): Describe ways to avoid and reduce threatening or unsafe situations.

Materials: Overhead/Handout 1.2.1; Diagram of Danger Zones around the Bus 1.2.2; Crossing Safely in the vicinity of a Bus Activity Diagram 1.2.3; Markers; 2 Boxes; Paper

Suggested Teaching Venue: In the home classroom during health unit or during physical education class. Can also be done with a real bus on the day when students practice bus emergency exit procedures.

Plan Ahead: Create overheads or copies of Where to Cross in Front of a Bus Overhead/Handout 1.2.1. Make copies of the “Diagram of Danger Zones around the Bus” (1.2.2) for each student. Use the boxes from Lesson 1 or tape sheets of paper with shapes, numbers, vocabulary words, or other symbols to the sides of boxes.

Lesson Progression:

Introduction
Instruction
Activity
Conclusion

Note to teacher: Here are some statistics about the need for teaching pedestrian safety near the bus to students.

1. Most School bus-related injuries occur when children are boarding or exiting because a blind spot extends approximately ten feet in front of the bus. (“*Pedestrian Safety*,” *San Diego Safe Communities 2000, 2001*)
2. More than half of the pedestrian fatalities in school bus-related crashes were children between 5 and 7 years old. (“*School Bus Safety Fact Sheets*,” *National Highway Traffic Safety Administration, 2001*)



Pedestrian Lesson 2 – 1st Grade

Bus Safety

Introduction (5 minutes)

Explain: Today we are going to learn how to exit the bus safely.

Talk to the students about their bus riding experience.

Suggested Topics:

1. How many of you ride the bus to school?
2. What is it like on the bus? Do people stay in their seat?
3. Does anyone have to cross the street when the bus drops you off?
4. What do you do when you get off the bus?

Instruction (10 minutes)

(Using overheads or handouts from the following pages)

Discuss keeping safe while waiting for the bus.

1. Why should you stay on the sidewalk or away from the street when waiting for the bus? (Cars are in the street and they could hurt you.)
2. Never run into the street, especially if you are playing with friends.
3. Do not approach the door of the bus until the bus driver opens the door and says that it is safe board the bus. Make sure you look to the left, to the right, and again to the left before crossing to door of the bus.
4. Never chase a ball or object into the street while waiting for the bus.
5. Why is it important to stay in your seat during the bus ride? (So the bus driver can keep her eyes on the road.)

Show Where to Cross in Front of a Bus Overhead/ Handout 1.2.1

1. What is the purpose of the crossing bar (see Diagram)? (To keep crossers in sight of the driver.)
2. What would happen if you were too close to the bus? (The driver could not see and may run you over.)
3. What does the sign on the side of the bus tell drivers to do? (Stop.)

4. Where is the edge of the bus when you are crossing? (It is where you first lean your head out from the safety of the bus to look for traffic.)

Discuss the danger zones around a bus.

1. Hand out the diagram of the danger zones around the bus (1.2.2) to each student.
2. Explain that you should never touch the bus or stand or walk close to the bus.
3. Do you cross in front or behind the bus? (Always in front.) Why? (So that the bus driver can see you.)
4. Emphasize: Even when you cross in front of the bus, you must stop at the second edge (point **B** in the diagram). At that point, look to the left, to the right, and again to the left, and then finish crossing.
5. Why should you stop at the second edge? (Because if a driver tries to go around the bus, they will not see you when you start crossing.)

Point to Route 1 on Diagram 1.2.2.

1. What you should do when you get off the bus on the same side of the street as your home? (You should get clear of the door by taking five big steps from the bus.)

Point to Route 2 on Diagram 1.2.2.

1. What should you do when you get off the bus and need to cross the street? (You should walk straight to the road's edge from the door and then turn left and take 10 big steps past the front of the bus. Then you should look up at the bus driver and walk towards the street in front of the bus.)
2. When you reach the second edge of the bus, you should look to the left, to the right, and again to the left before crossing the road.
3. Should you run across or should you walk? (Walk. You cannot see anything if you are running and you take the risk of falling.)
4. *Teacher can demonstrate.* What should I do as I am walking? (Scan, look to the left and to the right as you cross.)



Activity (10 minutes)

For this activity, it is ideal if you can use a real bus driver and a real bus. However, you can simulate a bus with a large tape rectangle and chairs.

Before the lesson, gather pictures of different colored cars and attach them to half of the sides of the two boxes. Or draw letters, numbers, or shapes on white pieces of paper (make them thick and visible) and attach them to the sides of the two boxes. If you don't have boxes, you can use papers with the cars, letters, numbers, or shapes drawn on each side.

1. See "Crossing safely in the vicinity of a bus activity diagram" 1.2.3 for possible layout. This activity can be set up in two minutes or less.
2. Divide the students into groups of two or four. The teacher stands at the location of the "T" on the diagram. Two helpers hold the boxes on each side of the bus exit. The students practice this step, one at a time.
3. The student waits for the bus driver (helper student) to stop the bus. They get up and walk out the bus door (use cones or bean bags to denote door).
4. When the student comes to the doorway edge of the bus (a chair or cone) they should stop. They then should look around the edge (look to the left, to the right, and again to the left).
5. When it is safe, they should walk straight ahead out of the door to the edge (tape).
6. Then they should turn left, and take 10 big steps past the front of the bus beyond where the crossing bar would be.
7. Next, they should turn left again, and walk in front of the bus, making sure they can still see the bus driver.
8. Then, the student should stop at the "second edge" of the bus and look to the left, to the right, and again to the left. As before, the student should cross only when the pictures on the boxes show that it is safe.
9. Next, the student crosses, scanning left and right while crossing.
10. As the student crosses, the helpers flip the box show a new symbol.
11. After the student crosses to the other side, the helpers hide the box behind them.

12. Upon reaching the other side, student now tells what the symbols were while they were crossing.
13. Demonstrate the activity for the students, and then have each student take a turn.

Optional Activity: Have parents wait with their child at a bus stop and go over how to keep safe around the bus. The students can write a journal entry about their experience.

Conclusion (2 to 5 minutes)

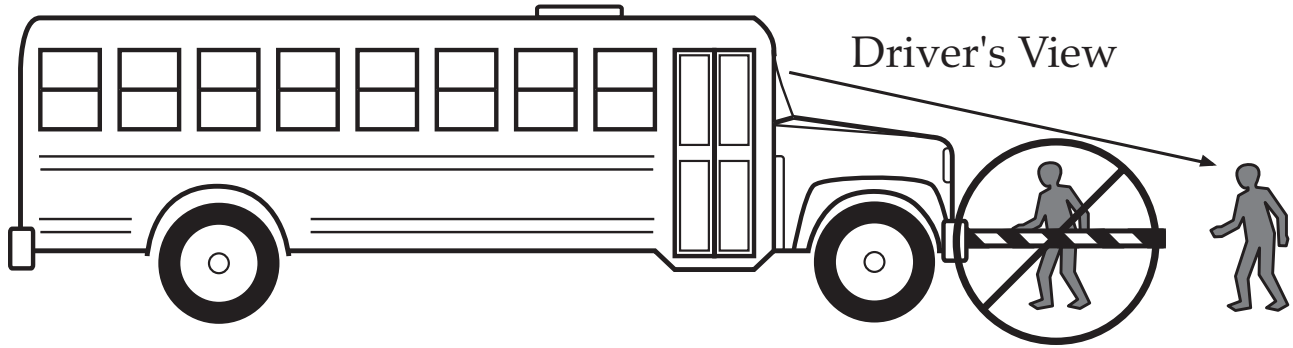
1. Have the students describe where the edge on a bus is.
2. What is the purpose of the crossing bar?
3. Why should you stop at the edge of the bus and look before crossing?
4. Identify the steps to take when exiting the bus:
 - (a) Same side: Five big steps clear.
 - (b) Across the street: Walk to the edge, 10 big steps past the front of the bus, walk carefully in front of the bus (making sure you can see the bus driver), stop at the edge, look to the left, to the right, and again to the left, and scan as you walk across.



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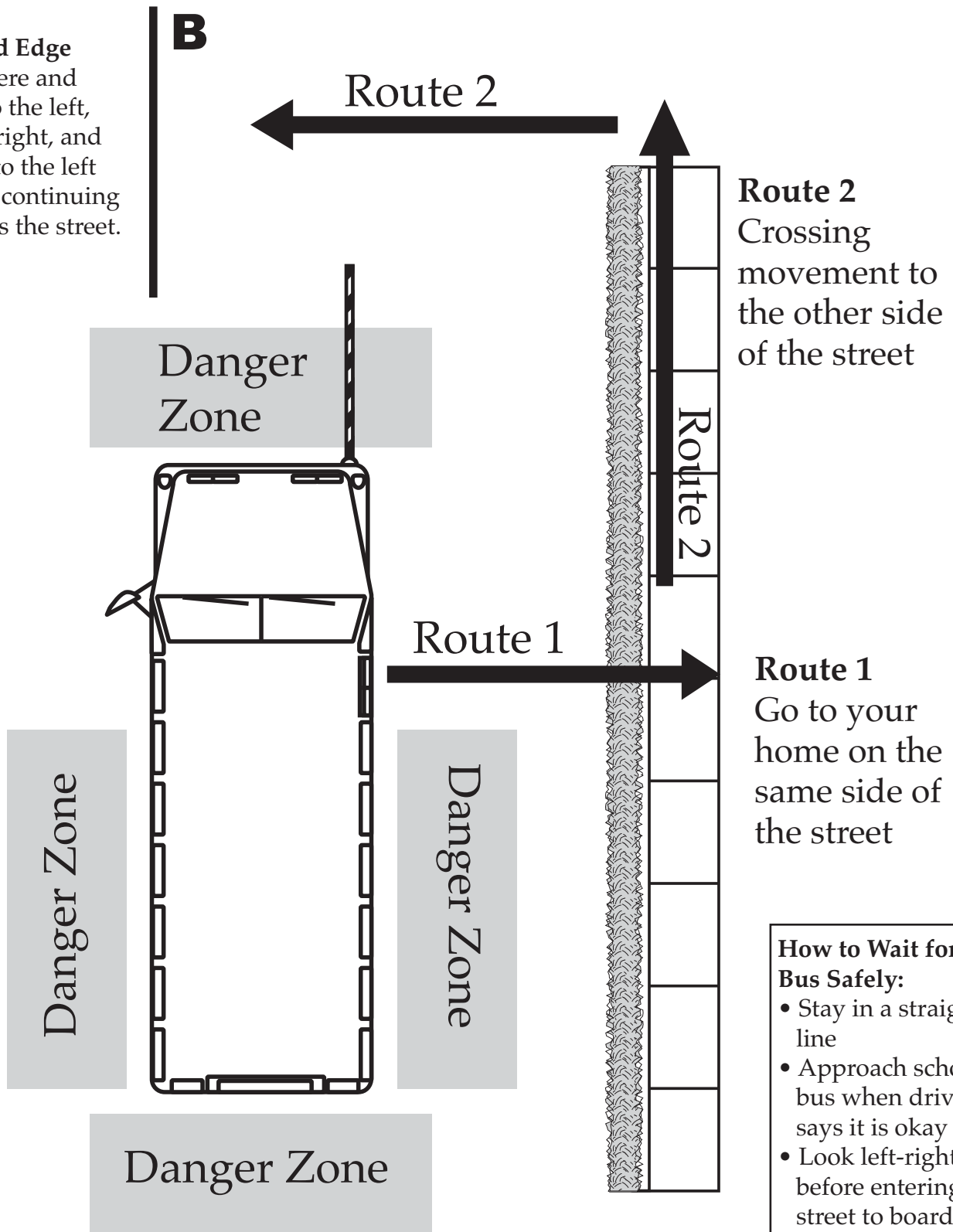


"Where to Cross in Front of a Bus" Overhead/Handout 1.2.1.



“Danger Zones around the Bus” Diagram 1.2.2

Second Edge
Stop here and look to the left, to the right, and again to the left before continuing to cross the street.

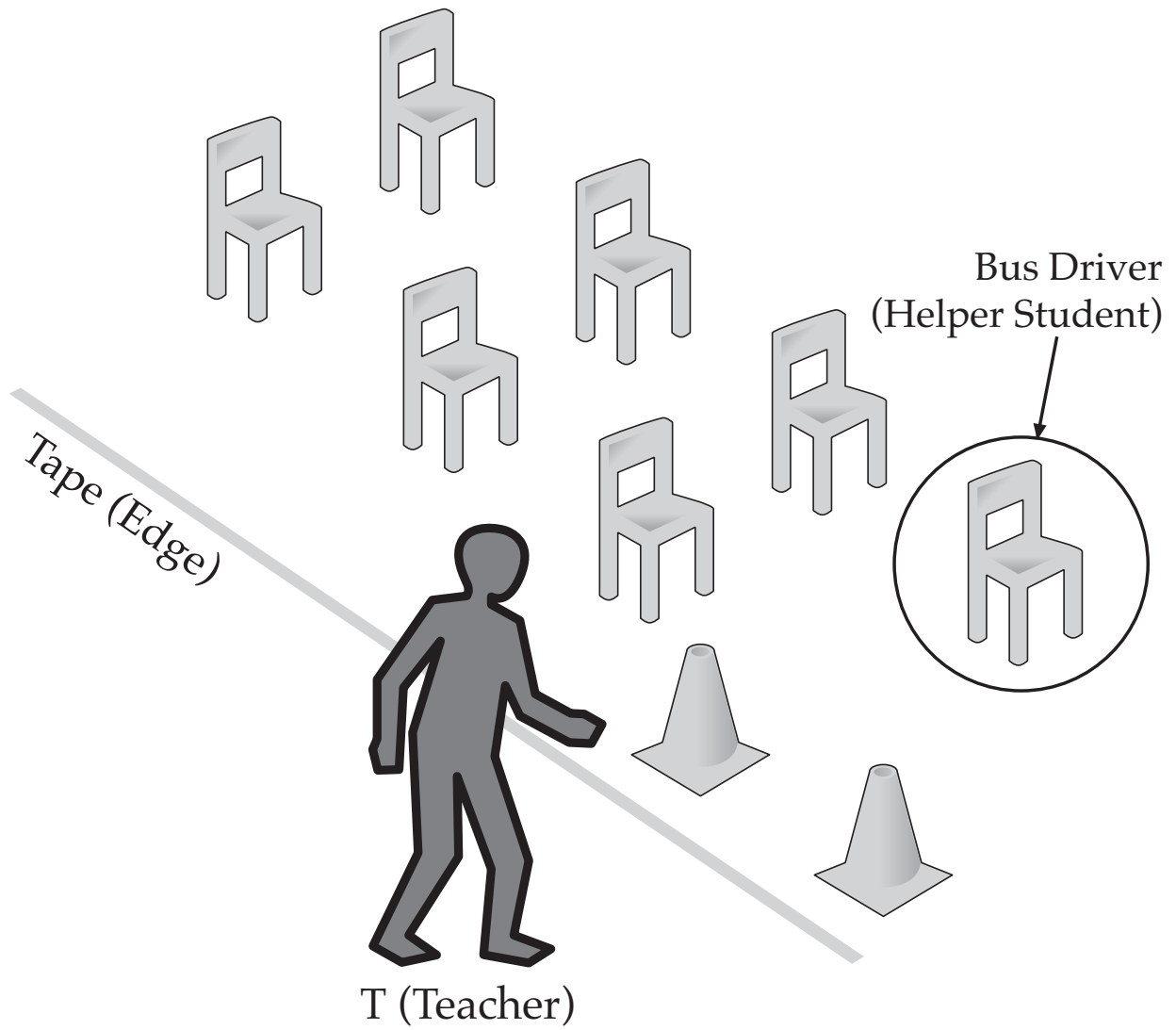


How to Wait for the Bus Safely:

- Stay in a straight line
- Approach school bus when driver says it is okay
- Look left-right-left before entering the street to board bus



“Crossing Safely in the Vicinity of a Bus” Activity Diagram 1.2.3





Pedestrian Lesson 3 – 1st Grade

Crossing the Intersection

Time: 30 Minutes

Objectives: To understand the complexities and differences between crossing the street and crossing an intersection. To recognize different types of dangerous scenarios and what precautions to take to remain safe at an intersection.

Maryland Learner Outcomes:

- Health, Health Behaviors (K-3): Compare behaviors that are safe to those that are risky.
- Health, Health Behaviors (K-3): Describe ways to avoid and reduce threatening or unsafe situations.
- Writing, Writing to Inform (PreK-3): Students will demonstrate their ability to write to inform by developing and organizing facts to convey information.
- Optional: Mathematics, Statistics and Probability (PreK-3): Organize and display data by using tables, pictographs, and bar graphs.

Materials: “Bad Driver Identification” Handout 1.3.1; Videotape of dangerous drivers (provided with lesson materials); TV/VCR; or projector for displaying pictures.

Suggested Teaching Venue: There are several possibilities for implementation, including the home classroom during a health unit, physical education class, or any other indoor or outdoor classroom situation. The lesson is not limited to being taught in school—it may be offered through a club, community group, or other local organization.

Plan Ahead:

Create copies of “Bad Driver Identification” Handout 1.3.1, Parent Handout 1.3.2, and Student Handout 1.3.3 for each student. You may need to gather some props like a water bottle, a pretend cell phone to act like the drivers described below. Set up the TV/VCR and cue the tape to the proper location or set up projector before class.

Lesson Progression

Introduction
Instruction
Activity
Conclusion

Note to teacher: This lesson is geared towards First Graders. It is important to note that children at this age are not ready to cross intersections on their own. They should be encouraged to cross an intersection only with the help of an adult. Statistics show that people are as likely to be injured crossing a marked crosswalk as crossing the street. It is important to note that just because pedestrians feel safer in crosswalks, they are not. A high level of caution should be used when crossing any street busy enough to have a crosswalk.

1. Almost two-thirds of all intersection dash crash types involve children under age 15. (*Federal Highway Administration, 1996*)
2. Children under age 10 are overrepresented in crashes where the pedestrian was struck while running through an intersection (children under 10 are involved in 19% of all pedestrian crashes and 41% of all “intersection dash” crashes). (*Federal Highway Administration, 1997*)



Pedestrian Lesson 3 – 1st Grade

Crossing the Intersection

Introduction (5 minutes)

Explain: Today we are going to learn some of the hazards in crossing an intersection.

Review the steps to crossing an intersection.

1. Stop at the edge.
2. Push the button, if available.
3. Wait for the signal.
4. Look to the left, to the right, again to the left, and then behind.
5. Walk across in a straight line, scanning to the left and right for traffic.

Discussion Topic:

1. What are some hazardous things people can do in cars when they drive through an intersection? (Speed, run red lights, swerve into other cars, not stop for pedestrians, etc.)

Instruction (10 minutes)

1. Talk about the different types of drivers than can make the crosswalk a dangerous place. (Turning cars are the most dangerous. When drivers are in a hurry or not paying attention, they tend to make mistakes. These mistakes can make crossing the intersection dangerous.)

Explain: Here are some of the most dangerous situations that drivers can create:

Teacher describes the actions of a bad driver by physically mimicking the driver and then showing the video clip.

Show Clip 1.

1. This is **Dangerous Dan** (driver running a stop sign).
2. What is he doing wrong? (Running a stop sign.)
3. Why is this dangerous? (He could hit another car or pedestrian and hurt them)
4. What could you do to make sure you did not start crossing the intersection while he was coming? (Pay attention. Look and listen for cars.)

5. If a car is not slowing down as you cross, should you try to run in front of it to make it to the other side? (No. Wait for it to pass, and then look left, right, left, and behind again. When it is safe, begin to cross.)

Show Clip 2.

1. This is **Rolling Rhonda** (driver rolls through a stop sign when turning right. The driver looks only to the left and does not notice pedestrians crossing from the right side).
2. What did she do wrong? (Not stop at the stop sign.)
3. Why could she be dangerous to a crosser? (She may not see them, especially crossers on the right side of her car.)
4. What should you do to avoid Rolling Rhonda? (Look and listen for cars before crossing. Look carefully over your shoulder before crossing. Try to make eye contact with driver making right on red before crossing and put out your hand to indicate that you will cross.)

Show Clip 3.

1. This is **Busy Bill** (driver is turning right or left, he is not paying attention to the road as he tries to eat, read the paper, or talk on phone and drive).
2. What is he doing wrong? (Not paying attention to driving.)
3. How does he make crossing dangerous? (He may not see you.)
4. How can you avoid Busy Bill? (Wait for him to turn, and then look left, right, left, and behind again. When it is safe, begin to cross.)

Show Clip 4.

1. This is **Late Larry** (driver reaches intersection and does not come to a complete stop until they are in or are past the crosswalk).
2. What is he doing wrong? (Not paying attention to people in crosswalk.)
3. How does he make crossing dangerous? (He may not see you.)
4. How can you avoid late Larry? (Wait for him to turn or continue through the intersection. After he is gone, look left, right, left, and behind again. When it is safe, begin to cross.)



Activity (15 minutes)

Show the second part of the videotape.

1. Hand out “Bad Driver Identification” Handout 1.3.1 in Lesson Pack 3.
2. Have students identify the types of drivers shown and write them down on the paper.

If you wish: pause the tape to discuss what the driver did wrong.

Letter to Dangerous Driver

1. Have the students write a letter to an adult warning them to not be a _____ (i.e. Dangerous Dan).
2. They should explain why that that behavior is dangerous to people crossing streets (pedestrians).

Optional Activity

1. If your school is near a major road, take the class out on a nice day and make a tally list of the types of bad drivers they see at an intersection. The students could also do this with a parent.
2. Return to the classroom and have them make a chart of the different types of drivers they saw.
3. Discuss the data shown in the charts.

Conclusion (2 minutes)

1. What are the steps to crossing an intersection?
2. Which way do you have to look in addition to the left, to the right, and again to the left?
3. Why is it important to listen and look before crossing?
4. What are some of the dangerous types of drivers you have to watch out for when crossing?
5. Remind the students that they should not cross the street on their own without the help of an adult.
6. Never run into the street, no matter what.
7. How do you look behind you. Put your chin on your shoulder.



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“Bad Driver Identification” Handout 1.3.1

1. Dangerous Dan

This driver drives through a red light without stopping.

2. Rolling Rhonda

This driver rolls through a stop sign or a red stop light when turning right. The driver looks only to the left and does not notice pedestrians crossing from the right side.

3. Busy Bill

This driver is turning right or left, he is not paying attention to the road as he tries to eat, read the paper, or talk on phone and drive.

4. Late Larry

This driver reaches intersection and does not come to a complete stop until they are in or are past the crosswalk.

Which of the drivers are shown in the following video clips? Write down their name in the blank.

1. Video Clip #1 _____

2. Video Clip #2 _____

3. Video Clip #3 _____

4. Video Clip #4 _____





Pedestrian Lesson 4 – 1st Grade

Perils of the Parking Lot

Time: 30 minutes

Objectives: To understand the need to find safety areas in a parking lot. To learn safe practices for crossing a parking lot.

Maryland Learner Outcomes:

- Health, Health Behaviors (K-3): Identify rules that promote health.
- Health, Safety and Injury Prevention (K-3): There are behaviors, such as taking precautions and following rules, that are basic to safe daily living.

Materials: Safety Spots Around a Car Overhead/Handout 1.4.1, Safety Spots Behind a Car Overhead/Handout 1.4.2, Crosswalks in Parking Lots Overhead/Handout 1.4.3, Parking Lot Map 1.4.4, and Parent Handout 1.4.5

Suggested Teaching Venue: Classroom or other community venue.

Vocabulary: Safety Spot, Safety Touch, Safety Zones

Lesson Progression:

Review
Instruction
Activity
Conclusion

Note to teacher: Students at this age should not be crossing a parking lot by themselves. This course is designed to teach them the skills they need when they are older and more independent. Please reinforce to them that they should cross a parking lot only with the assistance of an adult.



Pedestrian Lesson 4 – 1st Grade

Perils of the Parking Lot

Review (3 minutes)

1. Getting in and out of the car safely.
2. Finding the safety spots when you get out of the car.
3. Safe walking in the parking lot.

Instruction (15 minutes)

1. Using handouts and overheads instruct the students about the following areas: Looking for the signs of a car about to move; the danger of an open space near your car; finding safety zones, grass medians, sidewalks, and crossing zones; crossing the main car lane; basic mapping of a safe route; and marking danger spots and safe spots
2. **Emphasize:** *The important thing to remember about crossing a parking lot is that the quickest route is the most dangerous route. Crossing the parking lot at an angle is just as dangerous as crossing a road at an angle. Find a safe route and don't worry if it not the fastest. Getting hit by a car and spending six weeks in a cast will be a lot longer.*

The danger of an open parking space near your car

1. The main danger is that a driver can swing into the parking space without seeing a small child.
2. It seems like it would be safer because there is more room to get in and out of the car, but this is misleading.

What to do: Get out on the side with a car parked next to it. This is hard to do. At an office building, people tend to walk farther to go through an open door rather than take the shorter route and have to open the door. People getting out of a car will do the same. This makes scooting across the back seat to the other door a big mental block, but important to overcome.

Safety Spots and Zones

1. These two concepts describe where to stand and where to walk when in a parking lot:

A **safety spot** is where you can stand safely while waiting for your adult driver to walk with you.

A **safety zone** is an area of the parking lot where you are safer than in the middle of the parking lane.

Safety Spots (use Handout 1.4.1)

1. Getting out of the car (Point “B”): Wait for your parent to let you out of the car. When you get out, you should stand right up against the door. Then hold the hand of your parent as you walk through the parking lot.
2. The best way to know you are safe is to do a **Safety Touch**—standing at the back of the car, touch the trunk lock or taillight; standing at the front of the car, touch the headlight; standing at the side of the car, touch the door lock.
3. Getting ready to walk from the front of your car to the store (Point “C”): You should stand by the front bumper of the car you rode in.

Safety Zones (use Handout 1.4.2)

1. When walking down the row of cars, you should be two big steps away from the bumper of the cars (Line “B” in Zone 2).
2. Why should you walk there? (If you walk too close to the line of cars, you won't be able to see if the car is on or about to move. Two steps out is close to the bumpers of the car, but allows you to look for brake lights, reverse lights, and heads).
3. Other safety zones include areas where cars cannot go, such as sidewalks, medians, and grass areas (Zone “1”).

Looking for cars about to move

1. You should be in the right spot to look (2 steps from the bumper)
2. Practice “Headsearching,” which is looking for a driver’s head. (If a driver is in a car, they may be about to start it.)
3. You should look for brake lights. (Red light means the driver has their foot on the brake. White light means they have put the car into reverse.)



4. Listen for car sounds. (Listen to see if the engine is on.)
5. Ask students what they should do if they detect any of these things.

They can do three things:

- (a) Wait them out, especially if the lights are white.
- (b) Look to see if the lane is clear and then take a step out.
- (c) Keep looking at the driver as they move and try to make them notice you.

Crossing the main car lane between the parking spots and the store (Use Handout 1.4.3)

1. This situation is the same as any road, except that each row of cars is an intersection. There are no traffic lights and the drivers are not often paying attention.
2. Use the skills taught in crossing an intersection in lesson 3:
 - (a) Cross at the crossing lines if possible (Line "A").
 - (b) Do not cross the main strip at an angle (Line "B"). Look left right left as well as behind you.

Activity (10 minutes)

1. Break the kids into groups of three to four. Give each student a map of a parking lot (Handout 1.4.4). Each car on the map has a letter. Assign each group a car letter. That is their car.
2. Each group must design a map showing how they would get from their car to the store the safest way.
3. They use the following symbols to mark the map and include them in the legend on the final map.
 - (a) Color in green any safety Zones (medians, sidewalks or special curb dividers)
 - (b) Color a green hand for a safety touch
 - (c) Draw a red circle with a line through it on any danger zones.
 - (d) Draw a dashed line from their car to the store showing the safe way to travel.
4. After they have designed a rough sketch of their plan and the teacher approves it, the teacher will give them another blank map that will be their final map to turn in.

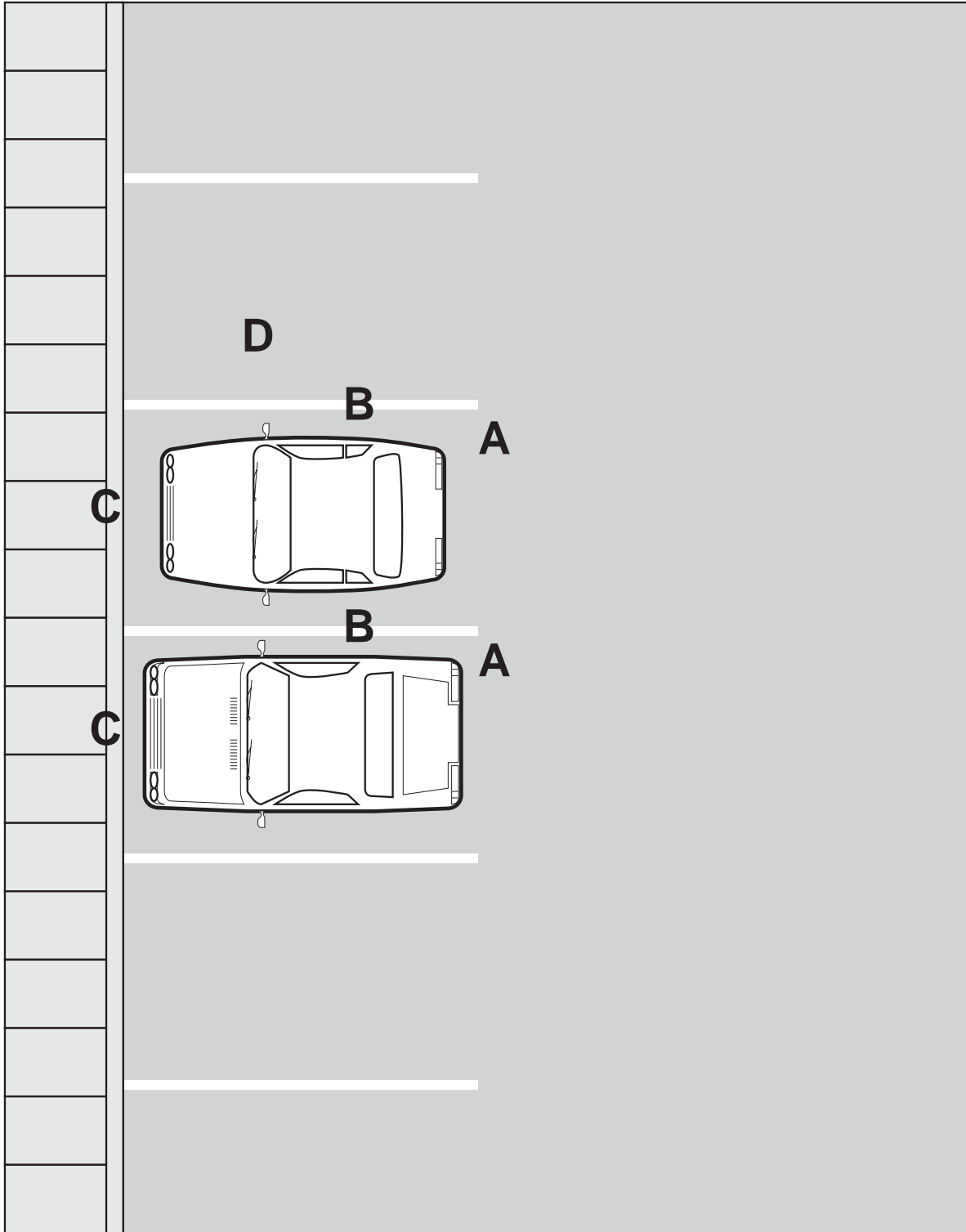
Optional Activity: Have them work with their parents to design a poster showing how to get through their neighborhood grocery store parking lot safely. The poster should include Safety Zones, Safety Spots, empty parking spots, and how to looking for cars that are about to move.

Conclusion (2 minutes)

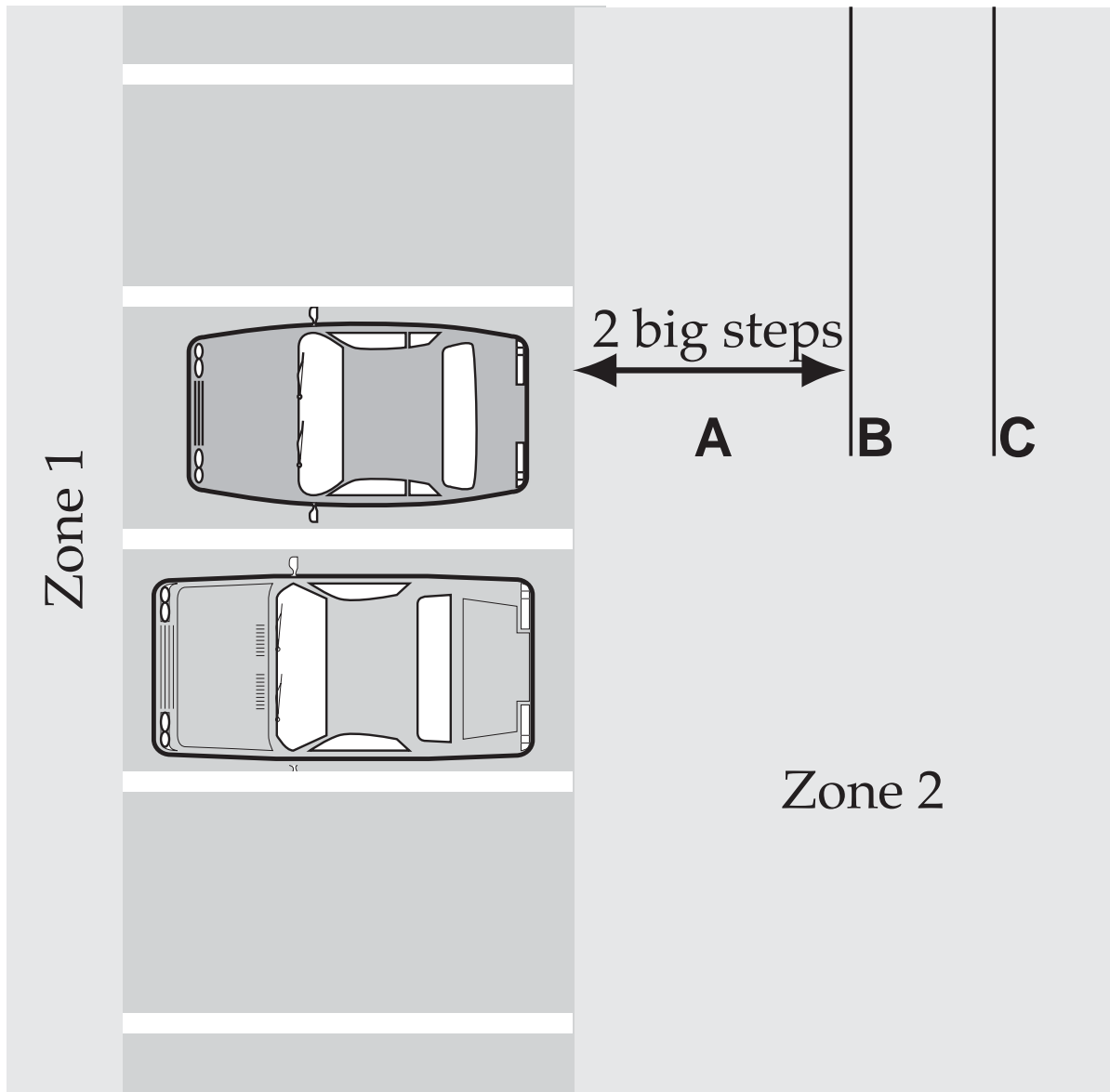
1. Review safety spots, safety zones, safety touch, how to detect cars that are about to move, and crossing from the parking area to the store.
2. Give the students Parent Handout 1.4.5 to take home.



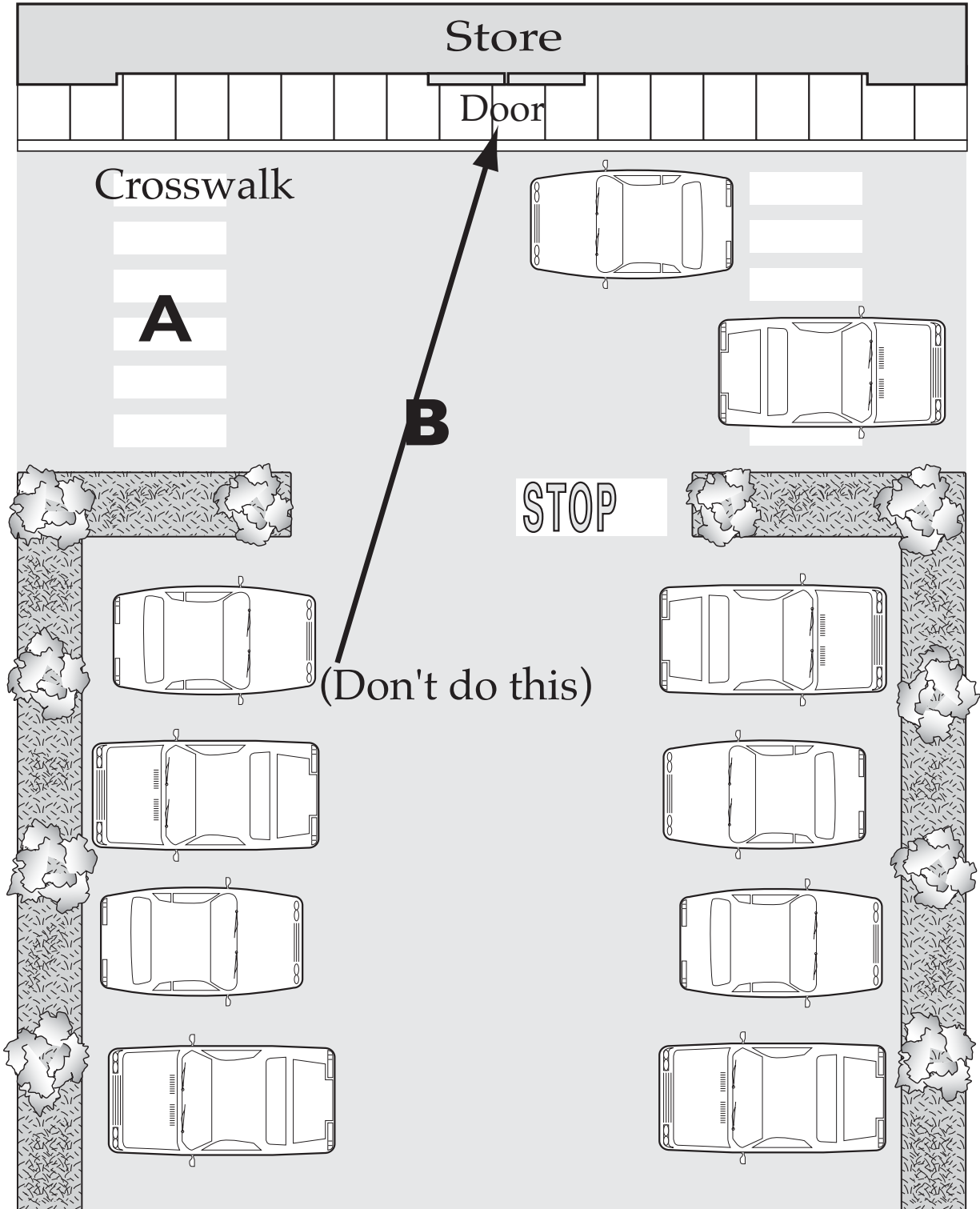
Safety Spots Around a Car Overhead/Handout 1.4.1



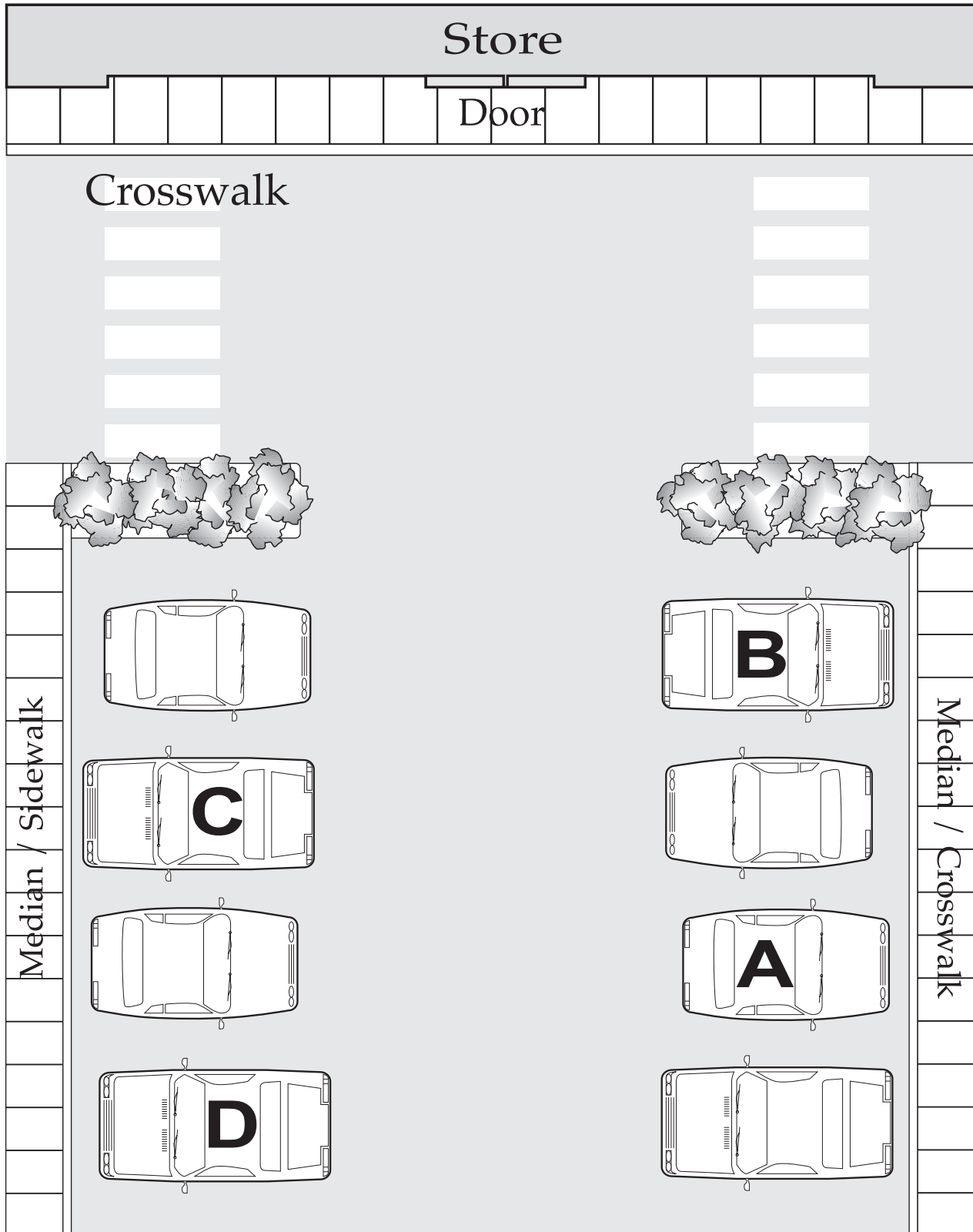
Safety Spots Behind a Car Overhead/Handout 1.4.2



Crosswalks in Parking Lots Overhead/Handout 1.4.3



Parking Lot Map 1.4.4



Parent Handout 1.4.5.

Ask your student about the Safety Spots and Safety Zones in a parking lot.

A **safety spot** is where your student can stand safely while waiting for you to walk through the parking lot with them.

A **safety zone** is an area of the parking lot where pedestrians are safer than in the middle of the parking lane.

Parent list of safety tips for helping their student walk through a parking lot:

Safety Spots

1. Have your student stand right up against the door of your car when they get out.
2. Have your student stand by the back bumper of the car you rode in when getting ready to walk from the back of your car to the store.
3. Have your student stand by the front bumper of the car you rode in when getting ready to walk from the front of your car to the store.
4. Have them do a **Safety Touch** to make sure they are safe. If they are standing at the back of the car, they should touch the trunk lock or taillight; if they are standing at the front of the car, they should touch the headlight; if they are standing at the side of the car, they should touch the door lock.

Safety Zones

1. When walking down the row of cars your student should be two big steps away from the bumper of the cars. This will allow them to see if any cars are on or about to move. They can check for brake lights, reverse lights, and the heads of drivers in cars.
2. Other safety zones include areas where cars cannot go, such as sidewalks, medians, and grass areas.

It is also important to have your student:

1. Be in the right spot to look for cars that are about to move (2 steps from the bumper).
2. Practice "Headsearching," which is looking for a driver's head. (If a driver is in a car, they may be about to start it.)
3. Look for brake lights. (Red light means the driver has their foot on the brake. White light means they have put the car into reverse.)
4. Listen for car sounds. (Listen to see if the engine is on.)
5. When they detect that a car may be about to move, they should:
 - (a) Wait them out, especially if the lights are white.
 - (b) Look to see if the lane is clear and then take a step out.
 - (c) Keep looking at the driver as they move and try to make them notice you.
6. Never cross diagonally through a parking lot.





Pedestrian Lesson 5 - 1st Grade

Traffic In TINYTOWN

Time: 35 Minutes

Objectives: To put into practice the safe pedestrian practices learned over the year.

Maryland Learner Outcomes:

- Health, Safety and Injury Prevention (K-3): There are behaviors, such as taking precautions and following rules, that are basic to safe daily living.

Montgomery County Physical Education Indicators:

- Demonstrate safety while participating in physical activity. (1-2)
- Identify safe and unsafe situations and practices. (1-2)

Materials: TINYTOWN Layout Diagram 1.5.1; “Walk” and “Don’t Walk” signs 1.5.2 (Optional); Play money 1.5.3; TINYTOWN Pedestrian Safety Rules 1.5.4 (Optional)

Suggested Teaching Venue: In the P.E. gymnasium or a marked area outside. This can be done as an integrated learning plan. The lesson is not limited to being taught in school—it may be offered through a club, community group, or other local organization.

Plan Ahead: See the graphic for layout in the gymnasium or outdoor area. Set up the TINYTOWN layout before the lesson (the program trailer has rope and chalk available).

*Feel free to modify the layout to fit outdoor or indoor.

*This lesson integrates well with the bicycling lessons.

Note: the setup for this may be assisted by the support person in charge of the bike trailer for your district

Use the wooden cut-out cars and trucks and the crosswalk, “Walk”, and “Don’t Walk” signs from the program trailer (Optional). If you do not have access to the trailer, create your own cardboard cut-out cars and trucks to use as props during the activity (Optional). Create poster of pedestrian safety rules (Optional). Photocopy enough of the money to pass out enough dollars for each student (Optional).

Lesson Progression:

Introduction

Activity

Note to teacher: This activity is geared towards the students showing all the skills they have learned in the basic Pedestrian Safety Course. Students are to navigate the streets of a model town and buy things from four different stores.

1. 51% of crashes involving pedestrians under age 15 were between 2 p.m. and 6 p.m., which is when children are walking home or playing after school. (*Federal Highway Administration, 1996*)
2. The highest rate of pedestrian injuries (injuries / population) in the United States is for children aged 5 to 9, followed by children aged 10 to 15. (*Insurance Institute for Highway Safety, 1999*)
3. 74% of pedestrians under age 10 were judged solely responsible for the pedestrian crash, while 60% of pedestrians aged 10 to 14 and only 33% of pedestrians over age 14 were solely responsible. (*Federal Highway Administration, 1996*)



Pedestrian Lesson 5 - 1st Grade

Traffic In TINYTOWN

Introduction (1 minute)

Explain: Today we are going to see how safely we can travel while shopping in TINYTOWN.

Activity (35 minutes)

1. See TINYTOWN Layout Diagram 1.5.1 in Lesson Pack 4 for a basic setup idea. Set up the TINYTOWN layout before the lesson (the program trailer has rope and chalk available).
2. Break the class into groups of about 4 students.
 - (a) One group acts as **imaginary cars or barriers** (they can ride scooters, or walk holding an imaginary wheel, or stand at the side of the street like a mailbox or tree). The students acting as the cars can hold the wooden cut-outs of cars and trucks from the program trailer, or they can create cardboard cut-outs to use as props.
 - (b) One group acts as the **crosswalk signs** at two different locations.
*Option: teacher or students can create cardboard crosswalk signs to use as props.
 - (c) One group acts as the **“traffic police”**. They look for unsafe behavior and ticket those who do it. You can determine the fine for unsafe behavior ahead of time.
 - (d) One group acts as the **store owners**. They will take money from the pedestrians in exchange for cards representing goods.
 - (e) *Optional:* One group can act as the **stoplights**. They can use the “Walk” and “Don’t Walk” signs from the trailer, or they can create cardboard cut-outs of the Sign Templates 1.5.2 to use as props.
 - (f) *Optional:* You may want to assign one of the drivers as a dangerous driver to see how the students react.
 - (g) The remaining students can be divided into groups of four **pedestrians**.
3. *Optional:* Hand out play money to each of the pedestrians (bring your own or copy and cut out the Play Money 1.5.3). Use the \$1, \$5, and \$10 denominations of play money bills, and make the prices of the goods cards correspond

to an appropriate math level (i.e. \$14.00, \$112.00) so the students can practice adding and subtracting to make change.

4. Each member of a pedestrian group will start at a different store.
5. Students have to travel safely and cross the street safely (see “TINYTOWN Pedestrian Safety Rules” 1.5.4.)
6. The team gets all their goods back to the teacher with the least number of safety tickets wins (or the team with the least number of safety tickets when the teacher blows the whistle after 2 to 3 minutes).
7. At the end of the round, have teams rotate so that everyone gets to play several different roles.

Moderate the pedestrian groups as they travel from store to store buying a goods card from each store. If the class is large, teacher may want to have one group sit on the side for a turn.

At any time during the activity, teacher may choose to blow a whistle or say “stop” to have all children freeze where they are. This is done so that the teacher can point out an example of a safe or unsafe behavior that has occurred or is developing.

TINYTOWN Pedestrian Safety Rules

The teacher may want to create several copies of the TINYTOWN Pedestrian Safety Rules 2.5.4 before the activity and then display them somewhere in TINYTOWN.

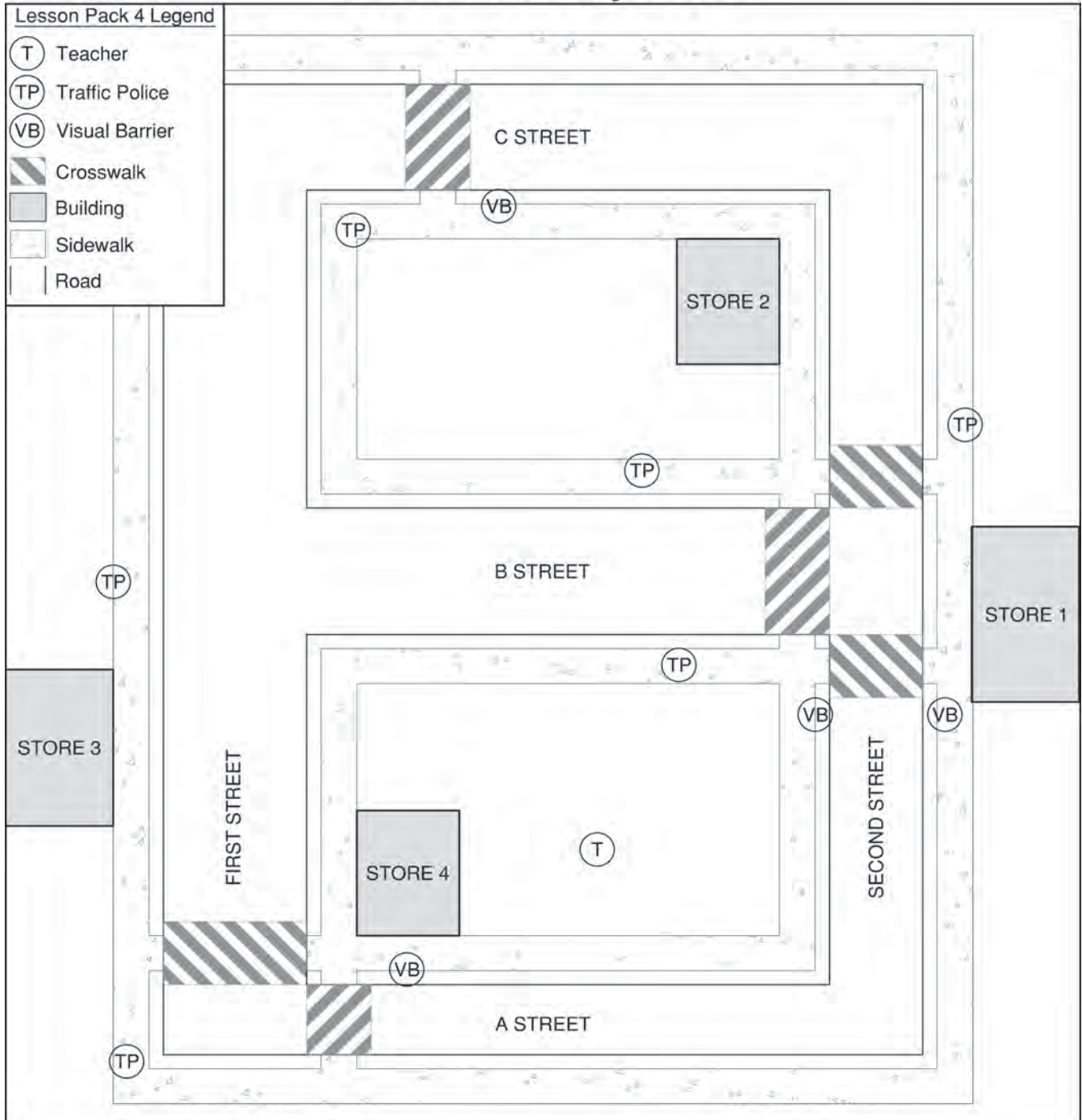
1. No running.
2. Cross at the crosswalk if there is one.
3. Stop at edge; look to the left, to the right, and again to the left; scan as you cross the street. Look behind when at intersections.
4. Wait for the crosswalk signal (students hold up cards for walk don’t walk, flap them before they change).
5. Cross in the crosswalk or in a straight line.
6. Watch for dangerous drivers.
7. Do not try to outrun the car.
8. Watch for hazards.



Tinytown Layout Diagram 1.5.1

(Diagram needs to be different for each grade; should show sidewalks; should show where the teacher is located; should show where student "traffic police" are located; note at bottom should say, "Make roads with rope or chalk provided in the trailer or use your own bean bags, disks, cones, tape, etc.")

Traffic In Tinytown!



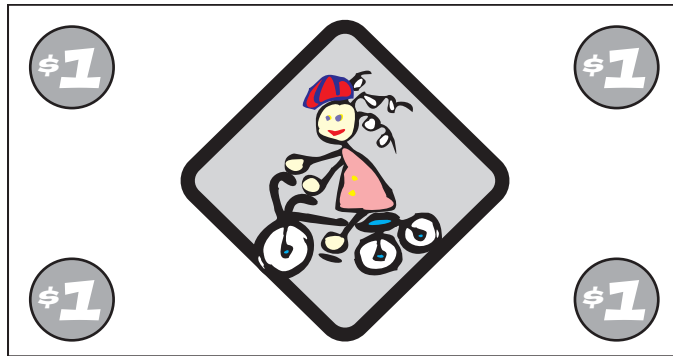
Make roads with blue tape or ribbons, bean bags, disks or cones can be used as well. Intersections can be mats or blue tape.



“Walk” and “Don’t Walk” Signs 1.5.2



Play Money 1.5.3



Pedestrian Safety Rules in Tinytown

1. No running.
2. Cross at the crosswalk if there is one.
3. Stop at edge; look to the left, to the right, and again to the left; scan as you cross the street. Look behind when at intersections. If it is unsafe to cross, begin this process over again, and cross only when it is safe.
4. Wait for the crosswalk signal.
5. Cross in a straight line across the street when there is not a crosswalk.
6. Watch for dangerous drivers.
7. Do not try to outrun the cars.
8. Watch for hazards.





Pedestrian Lesson 6 – 1st Grade

Neighborhood Walkabout

Time: 35 to 45 minutes

Objectives: To have real life experience crossing streets and intersections with the teacher to evaluate and correct student practices.

Maryland Learner Outcomes:

- Health, Health Behaviors (K-3): Compare behaviors that are safe to those that are risky.
- Health, Health Behaviors (K-3): Describe ways to avoid and reduce threatening or unsafe situations.
- Writing, Writing to Inform (PreK-3): Students will demonstrate their ability to write to inform by developing and organizing facts to convey information.

Montgomery County Physical Education Indicators:

- Demonstrate safety while participating in physical activity. (1-2)
- Identify safe and unsafe situations and practices. (1-2)

Materials: Safe Pedestrian Practices Review Sheet 1.6.1, Map paper with legend box or Neighborhood Street Map (optional)

Suggested Teaching Venue: Outdoors, on neighborhood streets with light traffic.

Note to Teacher: You may want to invite a police officer or other community leader to participate in the Neighborhood Walkabout, and combine this lesson with Lesson 7. Make sure to have parents sign the permission slip for leaving school property before doing this activity.



Planning

1. Divide students into sizable groups of 3 to 5. Each group should have an adult who has reviewed Safe Pedestrian Practices Review Sheet 1.6.1. This will help the adult guide the students in their crossing steps.
2. It may also be a good idea to review some of the basics of crossing streets and intersections from the handout with the students before the trip is made.
3. Have the students make a map of where they start from and where they are going. Either have the students draw the neighborhood streets on a map or provide a street map of the neighborhood for the students to draw on.
4. Have a few specific landmarks for the students to go to on the route. These may be stores or special houses they can go into or view.
5. Have the students make symbols on their map showing danger spots, intersections, sidewalks and the special sites. The students in each group can agree on their symbols and make a legend on their map.

Special Options

1. Have the students write a letter to a friend about their trip. They can include the answers to:
 - (a) What did they like seeing?
 - (b) How did it feel crossing the streets?
 - (c) Did anything happen that they would like to tell their friend?



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Dan Burden



Safe Pedestrian Practices Review Sheet 1.6.1

Crossing a Street

1. Stop at the curb (or first edge). If there is a second edge, walk to it and stop.
2. If there is a visual barrier, like a car, find a better spot to cross.
3. Look to the left, to the right, and again to the left for traffic.
4. Cross only when it is safe, and scan to the left and to the right for vehicles as you cross.
5. Walk in a straight line to the other side of the street, until you are out of the way of traffic.

Do's and Don'ts for Crossing the Street

1. Don't chase a ball into the street
2. Don't cross from between two cars
3. Don't cross alone.
4. Don't cross at an angle.
5. Don't run.
6. If a car passes while you are looking left and right, start again.
7. Cross with an adult.

Crossing an Intersection

1. Use the crossing button if the intersection has a traffic signal (and if a button is available)
2. Wait for the walking person or "WALK" symbol before crossing
3. Look to the left, to the right, again to the left, and then BEHIND you before crossing
4. Scan to the left, right, front, and behind as you cross.
5. Stop if you see a car turning into the crosswalk. Do not try to beat it.
6. Stay in the crosswalk, if there is one.
7. When finished crossing, step up onto the curb

Do's and Don'ts for Crossing the Intersection

1. Don't run across the intersection.
2. Wait for any turning car to pass. There is more room behind the car than in front of it.
3. Don't cross alone.
4. Don't cross at an angle.
5. Cross with an adult.





Pedestrian Safety Lesson 7 - 1st Grade

Special Speaker

Time: 25 to 45 minutes

Objective: To have an expert who deals with traffic accidents warn children about the dangers concerning unsafe crossing practices.

Maryland Learner Outcomes:

- Health, Health Behaviors (K-3): There are people, places and situations that may be hazardous to one's health and safety.
- Health, Health Behaviors (K-3): Identify rules that promote health.

Materials:

Safe Pedestrian Practices Review Sheet 1.7.1. Other materials, such as videos, handouts, or props are at the discretion of the speaker.

Suggested Teaching Venue: Large Classroom, auditorium, or outside area. This may be a good lesson to offer during the winter if no outdoor activities are incorporated.



Planning

Types of people who make good speakers

1. Children react very favorably to people in uniforms. Policemen, Emergency Medical Technicians, Ambulance volunteers, Firemen, and local Sheriffs all deal with pedestrian accidents often. They can speak with experience and authority about what they have seen.

Room considerations

1. Please make sure that the speaker will have enough room to demonstrate safe and unsafe practices. Check with them before hand to see if they would like some helpers to act out special accidents or dangerous situations that they have seen.
2. Ask if they would like to have a sample street marked out for them in the room or the outside area for them to demonstrate what they have seen happen. Having them reenact an incident or two can help the students visualize what had happened. Ask them if they will need any props to do this with. Teachers may want to arrange having older kids demonstrate or have some of the students in the class chosen for demonstrations beforehand.

Speaker should review what has been taught in previous lessons (Use Safe Pedestrian Practices Review Sheet 1.7.1)

1. Teachers should discuss the major points of previous pedestrian lessons related crossing the street, intersections, and parking lots and school bus safety with the speaker. Make sure to review the do's and don'ts on the handout. Sometimes speakers have their own ideas about where to cross which may not really be the safest for students to attempt. "Run as fast as you can across the street" may seem acceptable to an adult, but is not safe at all for a small child to do.
2. The speaker may want to look at the different driver descriptions found in Lesson 3, Crossing the Intersection (1st or 2nd Grade lessons). This may help them remember some dangerous situations that they have encountered.

Instruction

1. The speaker should introduce themselves, talk about their role in the community, and talk about how their job is related to pedestrian safety.
2. Have the speaker review the major points of the previous lessons, and have the speaker reinforce the ideas about chasing balls into the street and the importance of crossing with an adult.
3. The speaker can then give demonstrations, show props, or do other activities that they think can help teach the kids about pedestrian safety.



Safe Pedestrian Practices Review Sheet 1.7.1, page 1

Crossing a Street

1. Stop at the curb (or first edge). If there is a second edge, walk to it and stop.
2. If there is a visual barrier, like a car, find a better spot to cross.
3. Look to the left, to the right, and again to the left for traffic.
4. Cross only when it is safe, and scan to the left and to the right for vehicles as you cross.
5. Walk in a straight line to the other side of the street, until you are out of the way of traffic.

Do's and Don'ts for Crossing the Street

1. Don't chase a ball into the street
2. Don't cross from between two cars
3. Don't cross alone.
4. Don't cross at an angle.
5. Don't run.
6. If a car passes while you are looking left and right, start again.
7. Cross with an adult.

Crossing an Intersection

1. Use the crossing button if the intersection has a traffic signal (and if a button is available)
2. Wait for the walking person or "WALK" symbol before crossing
3. Look to the left, to the right, again to the left, and then BEHIND you before crossing
4. Scan to the left, right, front, and behind as you cross.
5. Stop if you see a car turning into the crosswalk. Do not try to beat it.
6. Stay in the crosswalk, if there is one.
7. When finished crossing, step up onto the curb

Do's and Don'ts for Crossing the Intersection

1. Don't run across the intersection.
2. Wait for any turning car to pass. There is more room behind the car than in front of it.
3. Don't cross alone.
4. Don't cross at an angle.
5. Cross with an adult.



Review Sheet 1.7.1, page 2

Walking in a Parking Lot

1. If possible, get out on the same side of the car as an adult.
2. If you must exit on the opposite side, stay close to the car and wait for an adult to reach you.
3. Do not jump out of the car or van door.
4. Hold on to your parent's hand when walking through the parking lot.
5. Do not walk into empty parking spaces.
6. Do not run or chase someone through the parking lot.
7. If possible, walk on a sidewalk or median in the parking lot.
8. Walk two steps away from the rear bumpers of the line of cars if you cannot walk on a sidewalk or median.
9. Do not walk down the middle of the traffic lane.
10. Do not walk right next to the bumper of the cars.
11. When getting into the car, close the door carefully, but quickly because it could be hit by a car moving in the spot next to you.
12. Make sure to buckle your seatbelt before the car starts.
13. Never chase a rolling toy into the car lane or into an empty parking space.

Being Safe Around the School Bus

1. Stay on the sidewalk or away from the street when waiting for the bus.
2. Never run into the street or chase a ball or object into the street especially if you are playing with friends.
3. Do not approach the door of the bus until the bus driver opens the door and says that it is safe board the bus.
4. Always stay in your seat during the bus ride.
5. Never stand in the danger zone that is inside the crossing bar area on the front side of the bus.
6. Never stand in the danger zone behind the bus.
7. Never stand in any of the other danger zones on the sides of the bus.
8. When you get off the bus and need to cross the street you should take 5 big steps away from the door, then turn left, and take 10 big steps past the front of the bus. Then you should look up at the bus driver and walk towards the street in front of the bus. When you reach the second edge of the bus, you should look to the left, to the right, and again to the left before crossing the road.



2nd Grade Pedestrian Safety Lessons



Toole Design Group

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Pedestrian Lesson 1 – 2nd Grade

Crossing Safely

Time: 20 Minutes

Objectives: To bring together all the things that have been learned about crossing streets safely into a presentation.

Maryland Learner Outcomes:

- Health, Health Behaviors (K-3): Compare behaviors that are safe to those that are risky.
- Health, Health Behaviors (K-3): Describe ways to avoid and reduce threatening or unsafe situations.
- Writing, Write to Inform (PreK-3): Use relevant descriptions, including sensory details, personal experiences, observations, and research-based information to make a topic or message clear to the reader.

Materials: Skit Ideas Handout 2.1.1; Strips of paper listing steps used to cross safely 2.1.2; Strips of paper listing crossing dangers 2.1.3; “Crossing the Street Song” 2.1.4 (optional)

Suggested Teaching Venue: There are several possibilities for implementation, including the home classroom during a health unit, physical education class, or any other indoor or outdoor classroom situation. The lesson is not limited to being taught in school—it may be offered through a club, community group, or other local organization.

Plan Ahead:

Make copies of Student Handout 2.1.1 and the “Crossing the Street Song” 2.1.4 (optional) for each student. Cut out strips of paper with the steps used to cross safely (sheet 2.1.2) and strips of paper with crossing dangers on them (sheet 2.1.3). *You may want to coordinate with music teacher on teaching the “Crossing the Street Song” if you choose to use it.

Lesson Progression:

Introduction and Review
Practice (create skits)
Conclusion

Note to teacher: This lesson is geared towards teaching second graders. It reviews the basics of crossing the street and dangers involved in crossing the street. It is designed for them to bring all those things together in preparation for them crossing streets on their own. It is important to note that children at this age are not ready to cross streets on their own. They should be encouraged to cross the street only with the help of an adult. It can be assumed that some, if not all, will already be engaging in crossing streets on their own.

1. 50% to 60% of pedestrian injuries to children aged 5 to 9 are “mid-block dart-out” crash types. (*Federal Highway Administration, 1996*)

2. Pedestrians under age 10 are overrepresented in crashes where contributing factors are “ran into street”, “ran from between parked vehicles”, and “playing in street”. (*Federal Highway Administration, 1996*)



Pedestrian Lesson 1 – 2nd Grade

Crossing Safely

Introduction (5 to 10 minutes)

Explain: Today we are going see how well we know the rules you should follow to cross the street safely.

Review these topics.

1. What is an edge? (It can be a curb or line at the edge of the vehicle lane. It is a place near the road where cars should not go.)
2. Where is the first edge? (It is the curb or edge of the pavement.)
3. Where is the second edge? (It is a safe place where it is possible to see cars.)
4. Which way do you look when crossing the street? (Left, right, and left Again.)
5. Do you cross in a straight line? (Yes.)
6. Do you run or walk? (Always walk.)
7. What is a hazard? (Something that could be dangerous.)
8. What are some of the hazards in crossing the street? (Cars, bicycles, buses.)
9. What is a visual barrier? (It is one of the types of hazards like trash cans, fences, trees, etc..)

Activity (10 minutes)

This can be done in open space of classroom or outside.

1. Teacher will break the class up into groups of three or four.
2. Hand each student Student Handout 2.1.1.
3. Give each group a skit example to do (from Handout 2.1.1).
4. Instruct them that their groups are to make up a crossing the street skit in which the crosser forgets the safe crossing step listed on one strip of paper (cut out from Strips of Paper listing Steps used to Cross Safely 2.1.2) and he or she must face the two dangers that are listed on the other two strips of paper (cut out from Strips of Paper listing Crossing Dangers 2.1.3).
5. One or two students act as the pedestrians. The others act as the cars or the dangers (some can stand like trees or parked cars blocking the view of moving vehicles).

6. After students have prepared their skits, they can return to their desks.
7. One group at time comes up to act out their skit.
8. After each skit is acted out, the students that are seated can write down what the dangers were and the step that was forgotten on the handout.

*For a curve: the student acting as a car can drive in a curving direction, showing where the curve is.

*For a hill: the student acting as a car can squat while walking then get bigger as they come to the crosser.

Optional Activity:

1. Have students write a letter to a friend telling them of one of the dangers of crossing the street. Then have them explain the best way to avoid the hazard when crossing the street.

Conclusion (2 minutes)

1. What are the steps to use to cross the road safely?
2. Optional. Have students sing the “Crossing the Street Song” 2.1.4.
3. What are some of the hazards of crossing the street? (Hidden drives, curves, hills, blocked views, hard to see clothing, distractions such as headphones).
4. Remind the students that they should not cross the street on their own without the help of an adult.



Toole Design Group



Skit Ideas Handout 2.1.1

It may be a good idea to have a student who is not in the group that is presenting an unsafe behavior come up and demonstrate the correct way to do it after the skit is finished.

Examples of skits you can do:

1. Someone who crosses from in between two cars
 - Never cross from between two cars
2. Someone who looks left then steps out into the street.
 - Look to the left, to the right, and again to the left
3. Someone who looks, left right left at the edge then runs with their head down.
 - Walk and scan as you cross
4. Someone who does all the steps right, but then crosses at an angle instead of straight across.
 - Cross in a straight line
5. A car is parked to the left of the student. They stop at the first edge, look left right left and cross without stopping at the second edge to get a clear view.
 - Stop at the second edge to look left right left.
6. A car is parked to the left of the student as he approaches the edge. As he begins to go to the second edge, the car's driver starts up the engine ("Vroom! Vroom!"). The pedestrian crosses anyway.
 - Never cross next to a parked car with a driver, the engine on or the lights on. Move down and away.
7. Student comes up and looks to the right first before crossing.
 - Look to the left, to the right, and again to the left.
8. Student does not stop at the edge but stops in the street before looking left right left.
 - Stop at the edge before looking to the left, to the right, and again to the left.



Strips of Paper listing Steps used to Cross Safely 2.1.2.

Choose a safe location to cross

Stop at the edge

Look to the to the left and to the right for traffic

Look to the left again

Stop at the second edge

Walk, don't run

Scan to the left and to the right for traffic

Repeat looking to the left and to the right until it is safe to cross

Go straight across



Strips of Paper listing Crossing Dangers 2.1.3.

Moving Cars

Moving Trucks

Buses

Bicycles

Parked Cars

Trash Cans

Bushes

Electric Boxes

Mailboxes

Fences

Trees



**Crossing the Street Song 2.1.4
(Optional)**

Crossing the Street Song

Sung to the Tune of London Bridge

Here we go, across the street
 Across the street
 Across the street
Here we go, across the street
 We cross safely!
 First we stop at the edge
 At the edge
 At the edge
 First we stop at the edge
 We cross safely!
Now we're looking left, right, left
 left, right, left
 left, right, left
Now we're looking left, right, left
 We cross safely!
Now we're going straight across
 straight across
 straight across
Now we're going straight across
 We cross safely!
 As we cross, we still look
 we still look
 we still look
 As we cross, we still look
 WE CROSSED SAFELY!!!





Pedestrian Lesson 2 – 2nd Grade

Bus Safety

Time: 30 Minutes

Objectives: To understand the need to be a safe pedestrian around the bus. To learn how to exit a bus and cross the street safely.

Maryland Learner Outcomes:

- Health, Health Behaviors (K-3): Compare behaviors that are safe to those that are risky.
- Health, Health Behaviors (K-3): Describe ways to avoid and reduce threatening or unsafe situations.

Materials: When to Cross in Front of a Bus Overhead/Handout 2.2.1; Diagram of Danger Zones around the Bus 2.2.2; Crossing Safely in the vicinity of a Bus Activity Diagram 2.2.3; Markers; 2 Boxes; Paper

Suggested Teaching Venue: In the home classroom during health unit or during physical education class. Can be also done with a real bus on the day when students practice bus emergency exit procedures.

Plan Ahead: Create overheads or copies of Overhead/Handout 2.2.1. Make copies of the “Diagram of Danger Zones around the Bus” (2.2.2) for each student. Use the boxes from Lesson 1 or tape sheets of paper with shapes, numbers, vocabulary words, or other symbols to the sides of boxes.

Lesson Progression:

Introduction
Instruction
Activity
Conclusion

Note to teacher: Here are some statistics about the need for teaching pedestrian safety near the bus to students.

1. Most School bus-related injuries occur when children are boarding or exiting because a blind spot extends approximately ten feet in front of the bus. (*“Pedestrian Safety,” San Diego Safe Communities 2000, 2001*)
2. More than half of the pedestrian fatalities in school bus-related crashes were children between 5 and 7 years old. (*“School Bus Safety Fact Sheets,” National Highway Traffic Safety Administration, 2001*)



Pedestrian Lesson 2 – 2nd Grade

Bus Safety

Introduction (5 minutes)

Explain: Today we are going to learn how to exit the bus safely.

Talk to the students about their bus riding experience.

Suggested Topics:

1. How many of you ride the bus to school?
2. What is it like on the bus? Do people stay in their seat?
3. Does anyone have to cross the street when the bus drops you off?
4. What do you do when you get off the bus?

Instruction (10 minutes)

(Using overheads or handouts from Lesson Pack 2)

Discuss keeping safe while waiting for the bus.

1. Why should you stay on the sidewalk or away from the street when waiting for the bus? (Cars are in the street and they could hurt you.)
2. Never run into the street, especially if you are playing with friends
3. Do not approach the door of the bus until the bus driver opens the door and says that it is safe board the bus. Make sure you look to the left, to the right, and again to the left before crossing to door of the bus.
4. Never chase a ball or object into the street while waiting for the bus.
5. Why is important to stay in your seat during the bus ride? (So the bus driver can keep her eyes on the road.)

Show Where to Cross in Front of a Bus

Overhead/Handout 2.2.1

1. What is the purpose of the crossing bar (see Diagram)? (To keep crossers in sight of the driver.)
2. What would happen if you were too close to the bus? (The driver could not see and may run you over.)
3. What does the sign on the side of the bus tell drivers to do? (Stop.)

4. Where is the edge of the bus when you are crossing? (It is where you first lean your head out from the safety of the bus to look for traffic.)

Discuss the danger zones around a bus.

1. Hand out the diagram of the danger zones around the bus (2.2.2) to each student.
2. Explain that you should never touch the bus or stand or walk close to the bus.
3. Do you cross in front or behind the bus? (Always in front.) Why? (So that the bus driver can see you.)
4. Emphasize: Even when you cross in front of the bus, you must stop at the second edge (Point **B** on the diagram), look to the left, to the right, and again to the left, and then finish crossing.
5. Why should you stop at the second edge? (Because if a driver tries to go around the bus, they will not see you when you start crossing)

Point to Route 1 on Diagram 2.2.2.

1. What you should do when you get off the bus on the same side of the street as your home? (You should get clear of the door by taking five big steps from the bus.)

Point to Route 2 on Diagram 2.2.2.

1. What should you do when you get off the bus and need to cross the street? (You should walk straight to the road's edge from the door and then turn left and take 10 big steps past the front of the bus. Then you should look up at the bus driver and walk towards the street in front of the bus.)
2. When you reach the second edge of the bus, you should look to the left, to the right, and again to the left before crossing the road.
3. Should you run across or should you walk? (Walk. You cannot see anything if you are running and you take the risk of falling.)
4. *Teacher can demonstrate.* What should I do as I am walking? (Scan, look left and right as you cross.)



Activity (10 minutes)

For this activity, it is ideal if you can use a real bus driver and a real bus. However, you can simulate a bus with a large tape rectangle and chairs.

Before the lesson, gather pictures of different colored cars and attach them to half of the sides of the two boxes. Or draw letters, numbers, or shapes on white pieces of paper (make them thick and visible) and attach them to the sides of the two boxes. If you don't have boxes, you can use papers with the cars, letters, numbers, or shapes drawn on each side.

1. See "Crossing safely in the vicinity of a bus activity diagram" 2.2.3 for possible layout. This activity can be set up in two minutes or less.
2. Divide the students into groups of two or four. The teacher stands at the location of the "T" on the diagram. Two helpers hold the boxes on each side of the bus exit. The students practice this step, one at a time.
3. The student waits for the bus driver (helper student) to stop the bus. They get up and walk out the bus door (use cones or bean bags to denote door).
4. When the student comes to the doorway edge of the bus (a chair or cone) they should stop.
5. Then they should look around the edge (look to the left, to the right, and again to the left).
6. When it is safe, they should walk straight ahead out of the door to the edge (tape).
7. Then they should turn left, and take 5 big steps past the front of the bus beyond where the crossing bar would be.
8. Next, they should turn left again, and walk in front of the bus, making sure they can still see the bus driver.
9. Then, the student should stop at the "second edge" of the bus and looks to the left, to the right, and again to the left. As before, the student should cross only when the pictures on the boxes show that it is safe.
10. Next, the student crosses, scanning to the left and to the right while crossing.
11. As the student crosses, the helpers flip the box show a new symbol.
12. After the student crosses to the other side, the helpers hide the box behind them.

13. Upon reaching the other side, student now tells what the symbols were while they were crossing.
14. Demonstrate the activity for the students, and then have each student take a turn.

Conclusion (2 to 5 minutes)

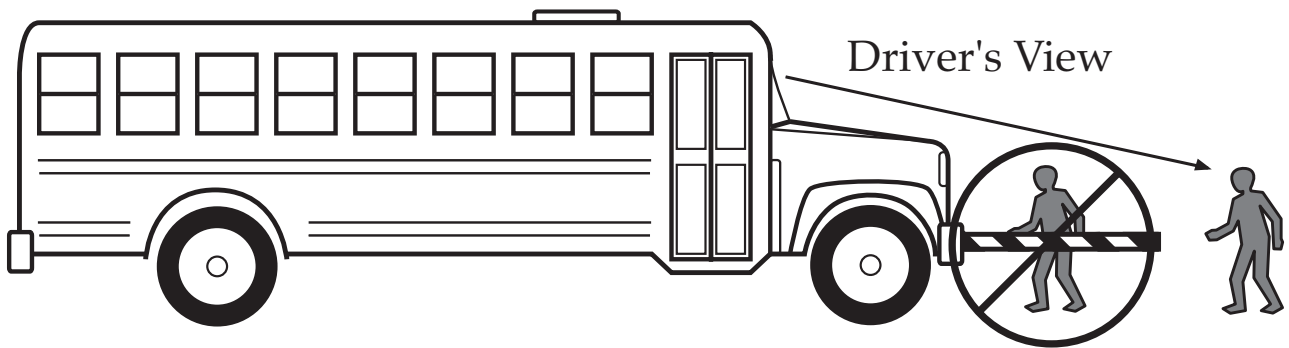
1. Have the students describe where the edge on a bus is.
2. What is the purpose of the crossing bar?
3. Why should stop at the edge of the bus and look before crossing?
4. Identify the steps to take when exiting the bus:
 - (a) Same side: Five big steps clear.
 - (b) Across the street: Walk to the edge, 5 big steps past the front of the bus, walk carefully in front of the bus (making sure you can see the bus driver), stop at the edge, look to the left, to the right, and again to the left, and scan as you walk across.



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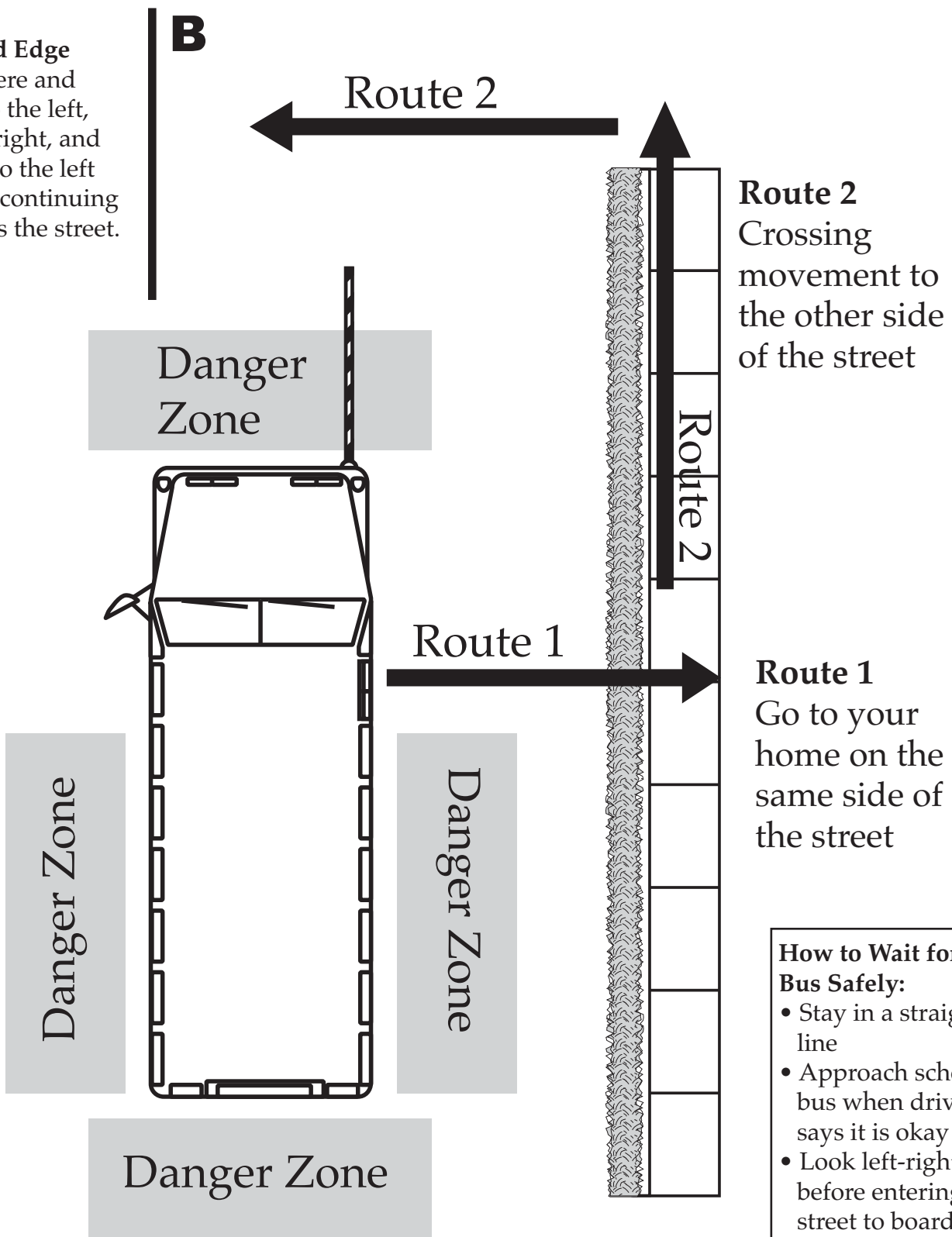


Where to Cross in Front of a Bus Overhead/Handout 2.2.1.



Danger Zones around the Bus Diagram 2.2.2

Second Edge
 Stop here and look to the left, to the right, and again to the left before continuing to cross the street.

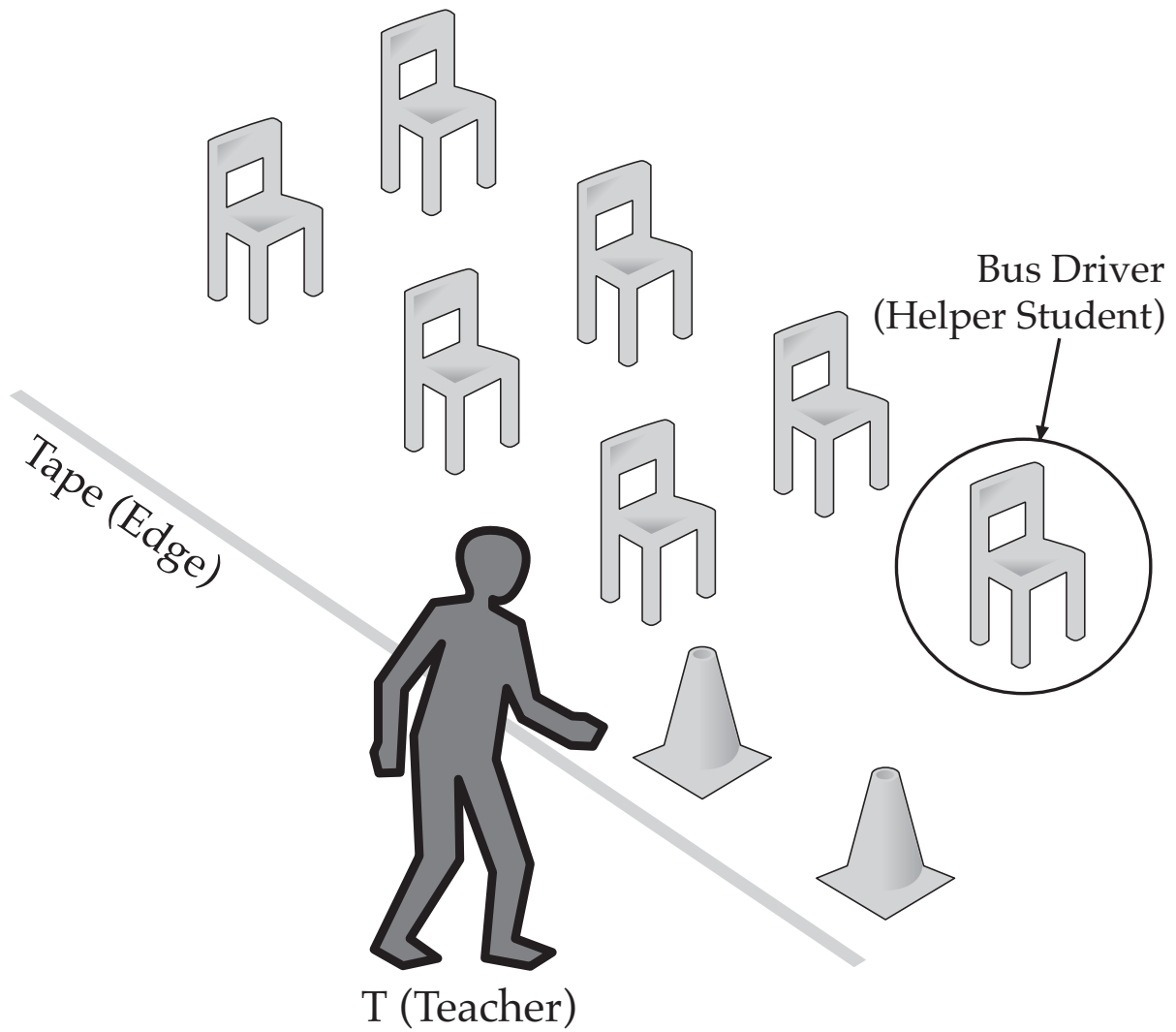


How to Wait for the Bus Safely:

- Stay in a straight line
- Approach school bus when driver says it is okay
- Look left-right-left before entering the street to board bus



“Crossing Safely in the Vicinity of a Bus” Activity Diagram 2.2.3





Pedestrian Lesson 3 – 2nd Grade

Crossing the Intersection

Time: 30 Minutes

Objectives: To understand the complexities and differences between crossing the street and crossing an intersection. To recognize different types of dangerous scenarios and what precautions to take to remain safe at an intersection.

Maryland Learner Outcomes:

- Health, Health Behaviors (K-3): Compare behaviors that are safe to those that are risky.
- Health, Health Behaviors (K-3): Describe ways to avoid and reduce threatening or unsafe situations.
- Writing, Writing to Persuade (PreK-3): Students will demonstrate their ability to write to express personal ideas by selecting a form and its appropriate elements.

Suggested Teaching Venue: In the home classroom during health unit.

Materials: Skit Ideas 2.3.1.; “Bad Driver Identification” Handout 2.3.2.

Suggested Teaching Venue: There are several possibilities for implementation, including the home classroom during a health unit, physical education class, or any other indoor or outdoor classroom situation. The lesson is not limited to being taught in school—it may be offered through a club, community group, or other local organization.

Plan Ahead:

Create copies of Skit Ideas 2.3.1. and “Bad Driver Identification” Handout 2.3.2. You may want to use the video tape from first grade to review the types of dangerous drivers.

Lesson Progression

Introduction

Activity

Conclusion

Note to teacher: This lesson is geared towards Second Graders. It is important to note that children at this age are not ready to cross intersections on their own. They should be encouraged to cross an intersection only with the help of an adult. Statistics show that people are as likely to be injured crossing a marked crosswalk as crossing the street. It is important to note that just because pedestrians feel safer in crosswalks, they are not. A high level of caution should be used when crossing any street busy enough to have a crosswalk.

1. Almost two-thirds of all intersection dash crash types involve children under age 15. (*Federal Highway Administration, 1996*)

2. Children under age 10 are overrepresented in crashes where the pedestrian was struck while running through an intersection (children under 10 are involved in 19% of all pedestrian crashes and 41% of all “intersection dash” crashes). (*Federal Highway Administration, 1997*)



Pedestrian Lesson 3 – 2nd Grade

Crossing the Intersection

Introduction (5 to 10 minutes)

Explain: Today we are going act out some of the dangers in crossing an intersection.

Review the steps to crossing an intersection.

1. Stop at the edge.
2. Push the button, if available.
3. Wait for the signal.
4. Look to the left, to the right, again to the left, **and then behind.**
5. Walk across in a straight line, scanning to the left and right for traffic.

Review the types of dangerous drivers found at intersections. For details about the types of dangerous drivers and the actions that pedestrians should take to respond safely, see Lesson 3, First Grade.

You may want to use the first part of the videotape from First Grade to review the type of dangerous drivers (use the top part of “Bad Driver Identification Handout” 2.3.2).

1. Dangerous Dan

Driver running a stop sign.

2. Rolling Rhonda

Driver rolls through a stop sign when making a right turn.

3. Busy Bill

Driver turning right or left who is not paying attention to the road as he tries to eat, read the paper, talk on phone and drive.

4. Late Larry

Driver rolls into the crosswalk and without slowing down very much and doesn't stop until he is in the middle or past the crosswalk.

Activity (20 to 25 minutes)

Dangerous Driver Skits

1. Break the students into groups of three to five.
2. Have them come up with a skit in which a crosser comes across a dangerous driver (You may want to use ideas from the handout, Skit Ideas 2.3.1.).

3. Teacher may want to determine that some groups show crossers who respond safely and some who do not.
4. After they have worked out their skits, have the students return to their seats and have the first group act out their skit at the front of the room.
5. Refer to the bottom part of the “Bad Driver Identification” Handout 2.3.2. Have the students fill it out during the skits to determine who was the dangerous driver and if the crosser crossed safely.

Pedestrian Fairy Tale

1. Have students write a short fairy tale about a child who was trying to get to grandma's house.
2. Each student should create fairy tale characters to describe at least one of the dangerous types of drivers described.
3. The story should have basic elements of setting and beginning, middle, and end.
4. Have the students think about whether the main character solves their problem (getting past the dangerous drivers).

*Option: Oral storytelling. Groups of four can work together creating the story. All four members develop the story and one presents it to the class.

Conclusion (2 minutes)

1. What are the steps to crossing an intersection?
2. What are some of the dangerous types of drivers you have to watch out for when crossing?
3. What should you do when faced with a dangerous driver?
4. Remind the students that they should not cross the street on their own without the help of an adult.



Duval County, FL Health Department



Skit Ideas 2.3.1

1. Dangerous Dan Skit

- One student acts as the stoplight (use green and red circle cutouts and say “ding” to act as the stoplight).
- One student acts as the pedestrian about to cross.
- One student acts as Dangerous Dan and run through the light.
- The remaining students act as cars that are obeying the rules and stopping.

2. Rolling Rhonda Skit

- One student acts as the stoplight (use green and red circle cutouts and say “ding” to act as the stoplight).
- One student acts as the pedestrian about to cross.
- One student acts as Rolling Rhonda and rolls through the light taking a right hand turn.
- The remaining students act as cars that are obeying the rules and stopping.

3. Busy Bill

- One student acts as the stoplight (use green and red circle cutouts and say “ding” to act as the stoplight).
- One student acts as the pedestrian about to cross.
- One student acts as Busy Bill. He comes up to the intersection, eating or drinking or talking on a cell phone. He stops, then without looking up, he takes a right through the intersection into the pedestrian.
- The remaining students act as cars that are obeying the rules and stopping.

4. Late Larry

- One student acts as the stoplight (use green and red circle cutouts and say “ding” to act as the stoplight).
- One student acts as the pedestrian about to cross. They cross the intersection almost to the other side.
- One student acts as Late Larry. He or she comes up late to the stop light. He or she does not stop until they are in the crosswalk and almost hit the pedestrian.
- The remaining students act as cars that are obeying the rules and stopping.



“Bad Driver Identification” Handout 2.3.2

1. Dangerous Dan

This driver drives through a red light without stopping.

2. Rolling Rhonda

This driver rolls through a stop sign or a red stop light when turning right. The driver looks only to the left and does not notice pedestrians crossing from the right side.

3. Busy Bill

This driver is turning right or left, he is not paying attention to the road as he tries to eat, read the paper, or talk on phone and drive.

4. Late Larry

This driver reaches intersection and does not come to a complete stop until they are in or are past the crosswalk.

Which of the drivers are shown in the following video clips? Write down their name in the blank.

1. Video Clip #1 _____

2. Video Clip #2 _____

3. Video Clip #3 _____

4. Video Clip #4 _____

Which of the drivers are shown in each skit? Write down their name in the blank.

2. Skit #1 _____

2. Skit #2 _____

3. Skit #3 _____

4. Skit #4 _____

5. Skit #5 _____

6. Skit #6 _____





Pedestrian Lesson 4 – 2nd Grade

Perils of the Parking Lot

Time: 35 minutes

Objective: To understand the dangerous types of behavior drivers may exhibit in a parking lot.

Maryland Learner Outcomes:

- Health, Health Behaviors (K-3): Identify rules that promote health.
- Health, Safety and Injury Prevention (K-3): There are behaviors, such as taking precautions and following rules, that are basic to safe daily living.

Materials:

Handout 2.4.1 and Parent Handout 2.4.2. Pedestrian program video of dangerous drivers. Any items students may need for skit, such as a chair with wheels, tape, markers, and paper (all optional).

Suggested Teaching Venue: Classroom or other community venue.

Lesson Progression:

Review
Instruction
Activity
Conclusion

Note to teacher: Students at this age should not be crossing a parking lot by themselves. This course is designed to teach them the skills they need when they are older and more independent. Please reinforce to them that they should cross a parking lot only with the assistance of an adult.



Pedestrian Lesson 4 – 2nd Grade

Perils of the Parking Lot

Review (2 minutes)

1. Used short film clips on the pedestrian program video to describe four dangerous types of driving behavior in a parking lot.
2. *Explain:* This video will show four drivers to avoid in the parking lot (Give students handout 2.4.1 so that they can follow along with the video). Mark down the video clip number next to the appropriate description.

Broken Neck Bill

Description: This driver does not look as he pulls into a parking space. This is very dangerous to a child who steps out of the car into an open parking space.

How to keep safe: Look for safe spots to stand or move to. Do not assume that the driver will see you in time. Let him pass you by before walking to your destination.

Hurried Harriet

Description: This driver is not going to stop where a driver should stop or slow down. She will whip into a turn, roll through a stop sign and make erratic turns looking for a quick spot.

How to keep safe: Move to a safe spot (near the bumper of a stationary car until she is past you). Be looking for her when you come to the edge of the median or the end of the line of cars.

Race Car Ralph

Description: This is the typical teenage driver who thinks the best way to impress people is to use the parking lot as a drag strip. The time between when you see him and when he will be in front of you is very little. He will not have time to react if you step out in front of his car.

How to keep safe: The best thing to do is to listen for him coming and stay in a safety spot. Wait until he passes before trying to cross. Even if he is far away, you should still wait. There is more room behind a speeding car than in front of it.

Pull Through Paul

Description: This is a driver who pulls into a spot and then decides to pull through to the empty spot in front of them. This creates a danger because you think that when he has entered the first stop, he has stopped moving. The other way they pull through is when they are leaving. They have an empty spot in front of them. They decide it is easier to pull through rather than backing up. The danger is that you are walking down the line of cars and then a car with blocked vision comes right at you.

How to keep safe: When you are walking and looking for cars that are on or occupied, be aware of empty spaces. Look past the empty space to the car behind it. Ask yourself: Is it occupied? Does the driver have the car started? Stop and stay at a safety spot (bumper of an unoccupied car) until the car pulls out.

Activity (15 minutes)

1. Have students break into groups and create skits in the school parking lot around unmoving cars. The students can use a wheeled chair and optional car poster to represent a moving car. (This can be replicated in a gym or open area of the classroom if going outside is not an option.)
2. (*Optional*) Create a tally list of types of drivers found in a parking lot on the Walkabout Lesson (Lesson 6). Return to class and make a chart showing the frequency of the types of drivers. (Break the kids into groups and assign them rows of the parking lot to watch.)

Review (2 minutes)

1. Go over the four types of bad drivers that are found in parking lots and how to stay safe when they are around.
2. Pass out Parent Handout 2.4.2 for the students to take home and discuss with their parents.



Handout 2.4.1

Mark down the video clip number next to the appropriate type of bad driver.

Broken Neck Bill (Video Clip # _____)

Description: This driver does not look as he pulls into a parking space. This is very dangerous to a child who steps out of the car into an open parking space.

How to keep safe: Look for safe spots to stand or move to. Do not assume that the driver will see you in time. Let him pass you by before walking to your destination.

Hurried Harriet (Video Clip # _____)

Description: This driver is not going to stop where a driver should stop or slow down. She will whip into a turn, roll through a stop sign and make erratic turns looking for a quick spot.

How to keep safe: Move to a safe spot (near the bumper of a stationary car until she is past you). Be looking for her when you come to the edge of the median or the end of the line of cars.

Race Car Ralph (Video Clip # _____)

Description: This is the typical teenage driver who thinks the best way to impress people is to use the parking lot as a drag strip. The time between when you see him and when he will be in front of you is very little. He will not have time to react if you step out in front of his car.

How to keep safe: The best thing to do is to listen for him coming and stay in a safety spot. Wait until he passes before trying to cross. Even if he is far away, you should still wait. There is more room behind a speeding car than in front of it.

Pull Through Paul (Video Clip # _____)

Description: This is a driver who pulls into a spot and then decides to pull through to the empty spot in front of them. This creates a danger because you think that when he has entered the first stop, he has stopped moving. The other way they pull through is when they are leaving. They have an empty spot in front of them. They decide it is easier to pull through rather than backing up. The danger is that you are walking down the line of cars and then a car with blocked vision comes right at you.

How to keep safe: When you are walking and looking for cars that are on or occupied, be aware of empty spaces. Look past the empty space to the car behind it. Ask yourself: Is it occupied? Does the driver have the car started? Stop and stay at a safety spot (bumper of an unoccupied car) until the car pulls out.



Parent Handout 2.4.2

Ask your student about the different types of bad drivers found in a parking lot.

The four types of bad drivers that we discussed are:

Broken Neck Bill

Description: This driver does not look as he pulls into a parking space. This is very dangerous to a child who steps out of the car into an open parking space.

How to keep safe: Look for safe spots to stand or move to. Do not assume that the driver will see you in time. Let him pass you by before walking to your destination.

Hurried Harriet

Description: This driver is not going to stop where a driver should stop or slow down. She will whip into a turn, roll through a stop sign and make erratic turns looking for a quick spot.

How to keep safe: Move to a safe spot (near the bumper of a stationary car until she is past you). Be looking for her when you come to the edge of the median or the end of the line of cars.

Race Car Ralph

Description: This is the typical teenage driver who thinks the best way to impress people is to use the parking lot as a drag strip. The time between when you see him and when he will be in front of you is very little. He will not have time to react if you step out in front of his car.

How to keep safe: The best thing to do is to listen for him coming and stay in a safety spot. Wait until he passes before trying to cross. Even if he is far away, you should still wait. There is more room behind a speeding car than in front of it.

Pull Through Paul

Description: This is a driver who pulls into a spot and then decides to pull through to the empty spot in front of them. This creates a danger because you think that when he has entered the first stop, he has stopped moving. The other way they pull through is when they are leaving. They have an empty spot in front of them. They decide it is easier to pull through rather than backing up. The danger is that you are walking down the line of cars and then a car with blocked vision comes right at you.

How to keep safe: When you are walking and looking for cars that are on or occupied, be aware of empty spaces. Look past the empty space to the car behind it. Ask yourself: Is it occupied? Does the driver have the car started? Stop and stay at a safety spot (bumper of an unoccupied car) until the car pulls out.





Pedestrian Lesson 5 – 2nd Grade

Traffic in TINYTOWN

Time: 35 Minutes

Objectives: To put into practice the safe pedestrian practices learned over the year.

Maryland Learner Outcomes:

- Health, Safety and Injury Prevention (K-3): There are behaviors, such as taking precautions and following rules, that are basic to safe daily living.

Montgomery County Physical Education Indicators:

- Demonstrate safety while participating in physical activity. (1-2)
- Identify safe and unsafe situations and practices. (1-2)

Materials: TINYTOWN Layout Diagram 2.5.1; “Walk” and “Don’t Walk” signs 2.5.2 (Optional); Play money 2.5.3; TINYTOWN Pedestrian Safety Rules 2.5.4 (Optional)

Suggested Teaching Venue: In the P.E. gymnasium or a marked area outside. This can be done as an integrated learning plan. The lesson is not limited to being taught in school—it may be offered through a club, community group, or other local organization.

Plan Ahead: See the graphic for layout in the gymnasium or outdoor area. Set up the TINYTOWN layout before the lesson (the program trailer has rope and chalk available).

*Feel free to modify the layout to fit outdoor or indoor.

*This lesson integrates well with the bicycling lessons.

Note: the setup for this may be assisted by the support person in charge of the bike trailer for your district.

Use the wooden cut-out cars and trucks and the crosswalk, “Walk”, and “Don’t Walk” signs from the program trailer (Optional). If you do not have access to the trailer, create your own cardboard cut-out cars and trucks to use as props during the activity (Optional). Create poster of pedestrian safety rules (Optional). Photocopy enough of the money to pass out enough dollars for each student (Optional).

Lesson Progression:

Introduction

Activity

Note to teacher: This activity is geared towards the students showing all the skills they have learned in the basic Pedestrian Safety Course. Students are to navigate the streets of a model town and buy things from four different stores.

1. 51% of crashes involving pedestrians under age 15 were between 2 p.m. and 6 p.m., which is when children are walking home or playing after school. (*Federal Highway Administration, 1996*)
2. The highest rate of pedestrian injuries (injuries / population) in the United States is for children aged 5 to 9, followed by children aged 10 to 15. (*Insurance Institute for Highway Safety, 1999*)
3. 74% of pedestrians under age 10 were judged solely responsible for the pedestrian crash, while 60% of pedestrians aged 10 to 14 and only 33% of pedestrians over age 14 were solely responsible. (*Federal Highway Administration, 1996*)



Pedestrian Lesson 5 – 2nd Grade

Traffic in TINYTOWN

Introduction (1 minute)

Explain: Today we are going to see how safely we can travel while shopping in TINYTOWN.

Activity (35 minutes)

1. See TINYTOWN Layout Diagram 2.5.1 in Lesson Pack 4 for a basic setup idea. Set up the TINYTOWN layout before the lesson (the program trailer has rope and chalk available).
2. Break the class into groups of about 4 students.
 - (a) One group acts as **imaginary cars or barriers** (they can ride scooters, or walk holding an imaginary wheel or jersey, or stand at the side of the street like a mailbox or tree). The students acting as the cars can hold the wooden cut-outs of cars and trucks from the program trailer, or they can create cardboard cut-outs to use as props.
 - (b) One group acts as the **crosswalk signs** at two different locations.

*Option: teacher or students can create cardboard crosswalk signs to use as props.
 - (c) One group acts as the **“traffic police”**. They look for unsafe behavior and ticket those who do it. You can determine the fine for unsafe behavior ahead of time.
 - (d) One group acts as the **store owners**. They will take money from the pedestrians in exchange for cards representing goods.
 - (e) *Optional:* One group can act as the **stoplights**. They can use the “Walk” and “Don’t Walk” signs from the trailer, or they can create cardboard cut-outs using the “Walk” and “Don’t Walk” Sign Templates 2.5.2 to use as props.
 - (f) *Optional:* You may want to assign one of the drivers as a dangerous driver to see how the students react.
 - (g) The remaining students can be divided into groups of four **pedestrians**.
3. *Optional:* Hand out play money to each of the pedestrians (bring your own or copy and cut

out the Play Money 2.5.3). Use the \$1, \$5, and \$10 denominations of play money bills, and make the prices of the goods cards correspond to an appropriate math level (i.e. \$14.00, so the students can practice adding and subtracting to make change.

4. Each member of a pedestrian group will start at a different store.
5. Students have to travel safely and cross the street safely (see “TINYTOWN Pedestrian Safety Rules” 2.5.4.)
6. The team gets all their goods back to the teacher with the least number of safety tickets wins (or the team with the least number of safety tickets when the teacher blows the whistle after 2 to 3 minutes).
7. At the end of the round, have teams rotate so that everyone gets to play several different roles.

Moderate the pedestrian groups as they travel from store to store buying a goods card from each store. If the class is large, teacher may want to have one group sit on the side for a turn.

At any time during the activity, teacher may choose to blow a whistle or say “stop” to have all children freeze where they are. This is done so that the teacher can point out an example of a safe or unsafe behavior that has occurred or is developing.

TINYTOWN Pedestrian Safety Rules

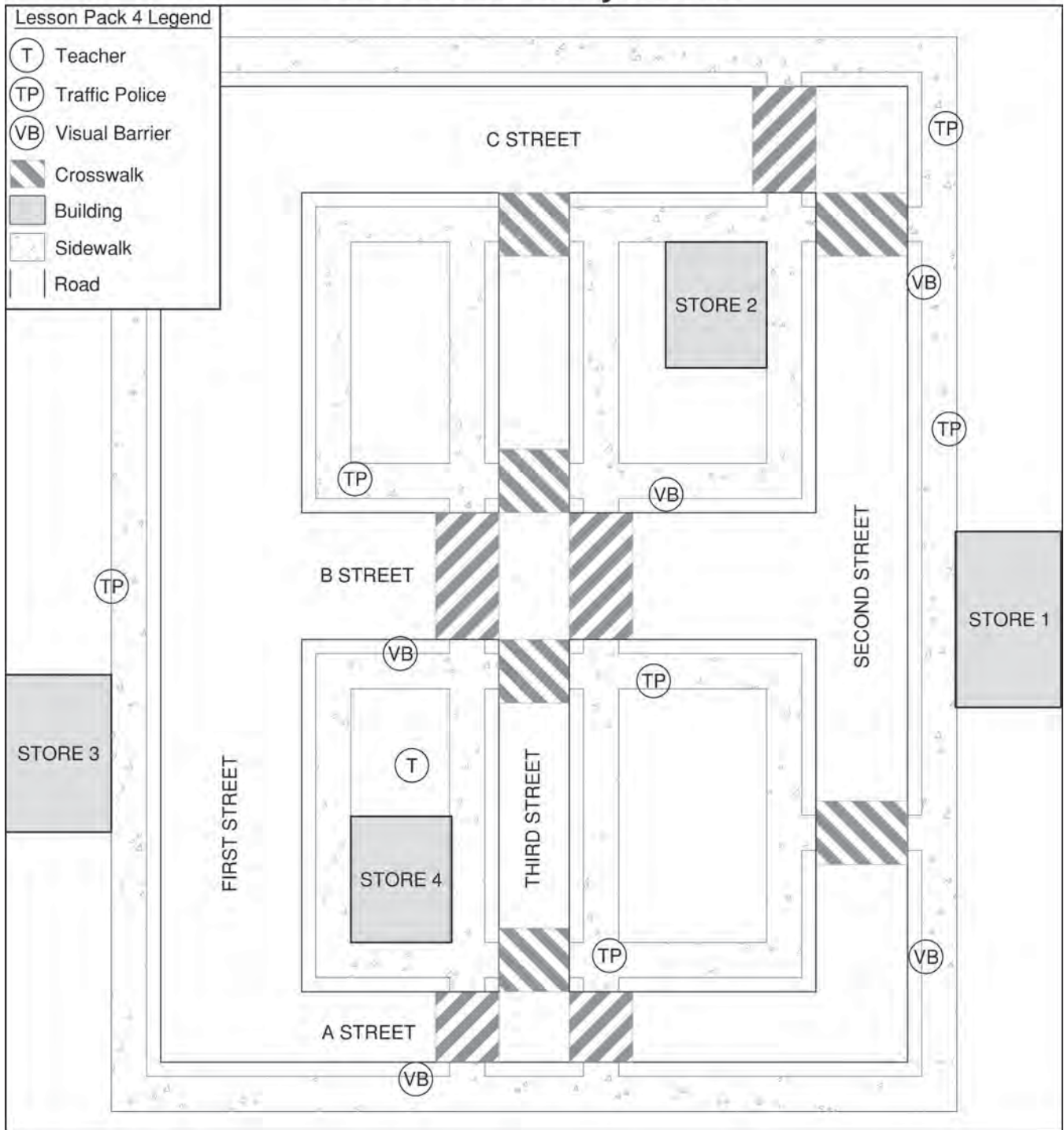
The teacher may want to create several copies of the TINYTOWN Pedestrian Safety Rules 2.5.4 before the activity and then display them somewhere in TINYTOWN.

1. No running.
2. Cross at the crosswalk if there is one.
3. Stop at edge; look to the left, to the right, and again to the left; scan as you cross the street. Look behind when at intersections.
4. Wait for the crosswalk signal (students hold up cards for walk don’t walk, flap them before they change).
5. Cross in the crosswalk or in a straight line.
6. Watch for dangerous drivers.
7. Do not try to outrun the car.
8. Watch for hazards.



Tinytown Layout Diagram 2.5.1

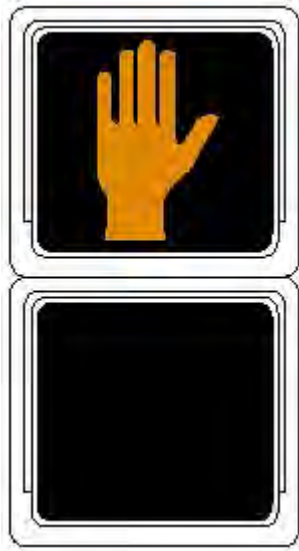
Traffic In Tinytown!



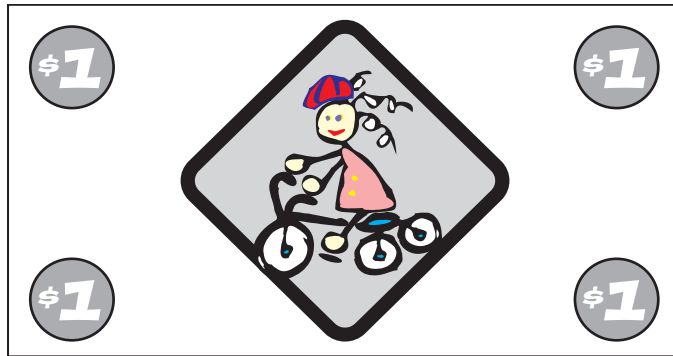
Make roads with blue tape or ribbons, bean bags, disks or cones can be used as well. Intersections can be mats or blue tape.



“Walk” and “Don’t Walk” Signs 2.5.2



Play Money 2.5.3



Pedestrian Safety Rules in Tinytown

1. No running.
2. Cross at the crosswalk if there is one.
3. Stop at edge; look to the left, to the right, and again to the left; scan as you cross the street. Look behind when at intersections. If it is unsafe to cross, begin this process over again, and cross only when it is safe.
4. Wait for the crosswalk signal.
5. Cross in the crosswalk or in a straight line across the street when there is not a crosswalk.
6. Watch for dangerous drivers.
7. Do not try to outrun the cars.
8. Watch for hazards.





Pedestrian Lesson 6 - 2nd Grade

Neighborhood Walkabout

Time: 35 to 45 minutes

Objectives: To have real life experience crossing streets and intersections with the teacher to evaluate and correct student practices.

Maryland Learner Outcomes:

- Health, Health Behaviors (K-3): Compare behaviors that are safe to those that are risky.
- Health, Health Behaviors (K-3): Describe ways to avoid and reduce threatening or unsafe situations.
- Mathematics, Statistics and Probability (PreK-3): Organize and display data by using tables, pictographs, and bar graphs.

Montgomery County Physical Education Indicators:

- Demonstrate safety while participating in physical activity. (1-2)
- Identify safe and unsafe situations and practices. (1-2)

Materials: Safe Pedestrian Practices Review Sheet Handout 2.6.1, Map paper with legend box or Neighborhood Street Map (optional)

Suggested Teaching Venue: Outdoors, on neighborhood streets with light traffic.

Note to Teacher: You may want to invite a police officer or other community leader to participate in the Neighborhood Walkabout, and combine this lesson with Lesson 7.

Make sure to have parents sign the permission slip for leaving school property before doing this activity.



Planning

1. Divide students into sizable groups of 3 to 5. Each group should have an adult who has reviewed Safe Pedestrian Practices Review Sheet Handout K.6.1. This will help the adult guide the students in their crossing steps.
2. It may also be a good idea to review some of the basics of crossing streets and intersections from the handout with the students before the trip is made.
3. Have the students make a map of where they start from and where they are going. Either have the students draw the neighborhood streets on a map or provide a street map of the neighborhood for the students to draw on.
4. Have a few specific landmarks for the students to go to on the route. These may be stores or special houses they can go into or view.
5. Have the students make symbols on their map showing danger spots, intersections, sidewalks and the special sites. The students in each group can agree on their symbols and make a legend on their map.

Special Options

1. Have the students make a tally list for each of the types bad drivers that they studied. Afterwards, in class, they can make a chart showing what types of drivers were seen.
2. Have “secret spots” along the trip route that each team has to find. On each spot can be a piece of paper with one word from a secret message. The class has to get all of the secret words and then decode the message at the end of the trip.



Safe Pedestrian Practices Review Sheet Handout 2.6.1

Safe Pedestrian Practices Covered in Earlier Lessons

Crossing a Street

1. Stop at the curb (or first edge). If there is a second edge, walk to it and stop.
2. If there is a visual barrier, like a car, find a better spot to cross.
3. Look to the left, to the right, and again to the left for traffic.
4. Cross only when it is safe, and scan to the left and to the right for vehicles as you cross.
5. Walk in a straight line to the other side of the street, until you are out of the way of traffic.

Do's and Don'ts for Crossing the Street

1. Don't chase a ball into the street
2. Don't cross from between two cars
3. Don't cross alone.
4. Don't cross at an angle.
5. Don't run.
6. If a car passes while you are looking left and right, start again.
7. Cross with an adult.

Crossing an Intersection

1. Use the crossing button if the intersection has a traffic signal (and if a button is available)
2. Wait for the walking person or "WALK" symbol before crossing
3. Look to the left, to the right, again to the left, and then BEHIND you before crossing
4. Scan to the left, right, front, and behind as you cross.
5. Stop if you see a car turning into the crosswalk. Do not try to beat it.
6. Stay in the crosswalk, if there is one.
7. When finished crossing, step up onto the curb

Do's and Don'ts for Crossing the Intersection

1. Don't run across the intersection.
2. Wait for any turning car to pass. There is more room behind the car than in front of it.
3. Don't cross alone.
4. Don't cross at an angle.
5. Cross with an adult.





Pedestrian Safety Lesson 7 – 2nd Grade

Special Speaker

Time: 25 to 45 minutes

Objective: To have an expert who deals with traffic accidents warn children about the dangers concerning unsafe crossing practices.

Maryland Learner Outcomes:

- Health, Health Behaviors (K-3): There are people, places and situations that may be hazardous to one's health and safety.
- Health, Health Behaviors (K-3): Identify rules that promote health.

Materials:

Safe Pedestrian Practices Review Sheet Handout 2.7.1. Other materials, such as videos, handouts, or props are at the discretion of the speaker.

Suggested Teaching Venue: Large Classroom, auditorium, or outside area. This may be a good lesson to offer during the winter if no outdoor activities are incorporated.



Toole Design Group



Planning

Types of people who make good speakers

1. Children react very favorably to people in uniforms. Policemen, Emergency Medical Technicians, Ambulance volunteers, Firemen, and local Sheriffs all deal with pedestrian accidents often. They can speak with experience and authority about what they have seen.

Room considerations

1. Please make sure that the speaker will have enough room to demonstrate safe and unsafe practices. Check with them before hand to see if they would like some helpers to act out special accidents or dangerous situations that they have seen.
2. Ask if they would like to have a sample street marked out for them in the room or the outside area for them to demonstrate what they have seen happen. Having them reenact an incident or two can help the students visualize what had happened. Ask them if they will need any props to do this with. Teachers may want to arrange having older kids demonstrate or have some of the students in the class chosen for demonstrations beforehand.

Speaker should review what has been taught in previous lessons (Use Safe Pedestrian Practices Review Sheet Handout 2.7.1)

1. Teachers should discuss the major points of previous pedestrian lessons related crossing the street, intersections, and parking lots and school bus safety with the speaker. Make sure to review the do's and don'ts on the handout. Sometimes speakers have their own ideas about where to cross which may not really be the safest for students to attempt. "Run as fast as you can across the street" may seem acceptable to an adult, but is not safe at all for a small child to do.
2. The speaker may want to look at the different driver descriptions found in Lesson 3, Crossing the Intersection (1st or 2nd Grade lessons). This may help them remember some dangerous situations that they have encountered.

Instruction

1. The speaker should introduce themselves, talk about their role in the community, and talk about how their job is related to pedestrian safety.
2. Have the speaker review the major points of the previous lessons, and have the speaker reinforce the ideas about chasing balls into the street and the importance of crossing with an adult.
3. The speaker can then give demonstrations, show props, or do other activities that they think can help teach the kids about pedestrian safety.



Duval County, FL Health Department



Safe Pedestrian Practices Review Sheet 2.7.1, page 1

Safe Pedestrian Practices Covered in Earlier Lessons

Crossing a Street

1. Stop at the curb (or first edge). If there is a second edge, walk to it and stop.
2. If there is a visual barrier, like a car, find a better spot to cross.
3. Look to the left, to the right, and again to the left for traffic.
4. Cross only when it is safe, and scan to the left and to the right for vehicles as you cross.
5. Walk in a straight line to the other side of the street, until you are out of the way of traffic.

Do's and Don'ts for Crossing the Street

1. Don't chase a ball into the street
2. Don't cross from between two cars
3. Don't cross alone.
4. Don't cross at an angle.
5. Don't run.
6. If a car passes while you are looking left and right, start again.
7. Cross with an adult.

Crossing an Intersection

1. Use the crossing button if the intersection has a traffic signal (and if a button is available)
2. Wait for the walking person or "WALK" symbol before crossing
3. Look to the left, to the right, again to the left, and then BEHIND you before crossing
4. Scan to the left, right, front, and behind as you cross.
5. Stop if you see a car turning into the crosswalk. Do not try to beat it.
6. Stay in the crosswalk, if there is one.
7. When finished crossing, step up onto the curb

Do's and Don'ts for Crossing the Intersection

1. Don't run across the intersection.
2. Wait for any turning car to pass. There is more room behind the car than in front of it.
3. Don't cross alone.
4. Don't cross at an angle.
5. Cross with an adult.



Review Sheet 2.7.1, page 2

Walking in a Parking Lot

1. If possible, get out on the same side of the car as an adult
2. If you must exit on the opposite side, stay close to the car and wait for an adult to reach you.
3. Do not jump out of the car or van door.
4. Hold on to your parent's hand when walking through the parking lot.
5. Do not walk into empty parking spaces.
6. Do not run or chase someone through the parking lot.
7. If possible, walk on a sidewalk or median in the parking lot.
8. Walk two steps away from the rear bumpers of the line of cars if you cannot walk on a sidewalk or median.
9. Do not walk down the middle of the traffic lane.
10. Do not walk right next to the bumper of the cars.
11. When getting into the car, close the door carefully, but quickly because it could be hit by a car moving in the spot next to you.
12. Make sure to buckle your seatbelt before the car starts.
13. Never chase a rolling toy into the car lane or into an empty parking space.

Being Safe Around the School Bus

1. Stay on the sidewalk or away from the street when waiting for the bus.
2. Never run into the street or chase a ball or object into the street especially if you are playing with friends.
3. Do not approach the door of the bus until the bus driver opens the door and says that it is safe board the bus.
4. Never stand in the danger zone that is inside the crossing bar area on the front side of the bus.
5. Never stand in the danger zone behind the bus.
6. Never stand in any of the other danger zones on the sides of the bus.
7. When you get off the bus and need to cross the street you should take 5 big steps away from the door, then turn left, and take 10 big steps past the front of the bus. Then you should look up at the bus driver and walk towards the street in front of the bus. When you reach the second edge of the bus, you should look to the left, to the right, and again to the left before crossing the road.
8. Always stay in your seat during the bus ride.



3rd Grade Bicycle Safety Lessons



Toole Design Group

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Bike Lesson 1 - 3rd Grade

Always Wear Your Helmet

Time: 35 minutes

Objectives: To understand the importance of always wearing a helmet when biking. Demonstrate how to properly fit a helmet (be able to check the five steps). Learn how to care for and replace a helmet. Understand that adults use helmets in a variety of occupations and activities.

Maryland Learner Outcomes:

- Health, Health Behaviors (K-3): Identify appropriate and responsible health behaviors.
- Health, Health Behaviors (K-3): Describe ways to avoid and reduce threatening or unsafe situations.
- Health, Health Behaviors (K-3): Identify rules that promote health.

Montgomery County Physical Education Indicators:

- Select and categorize specialized equipment used for participation in a variety of activities (3)
- Identify appropriate equipment to be used for physical activity settings. (3)
- Apply safe use of equipment. (3)
- Respect and accept peer assistance. (3)

Materials: TV, VCR, “Ride Smart–It’s Time to Start” Video (provided with program materials); “Five Steps for Fitting a Helmet” Handout 3.1.1 (provided after the lesson outline); Helmet Fit Checklist 3.1.2.; 2 eggs, Styrofoam pieces, 1 box, 1 piece of aluminum foil (or paper if aluminum is not available), Paper or drawing material, 2-5 adult volunteers to assist with helmet fit (it only takes a few minutes to train the volunteers). *Note that the following items will be available in the supply trailer:* Helmet for each student (small, medium, and large sizes are provided). Surgical cap for each student. If the trailer is not available, it may be possible to get a separate bucket of helmets through the program.

Suggested teaching venue:

Physical education (great rainy day activity) bicycle unit, home classroom during general health or science units, after school program, or club or other community group meeting.

Plan Ahead: One week before outdoor bike activities, recruit parent volunteers to assist with helmet fit activity or contact local Safe Kids Coordinator or Community Traffic Safety Program Coordinator for assistance. You can also contact the League of American Bicyclists for the names of local League Certified Instructors who might be available to assist. Make copies, overheads, or a poster of “Five Steps for Fitting a Helmet” Handout 3.1.1 and make copies of Helmet Fit Checklist 3.1.2. Arrange to have helmets in the classroom.

Lesson progression:

Introduction
Instruction
Activity
Conclusion



Note to teacher: Here are some statistics about the need for teaching the importance of wearing a properly fitted helmet.

1. 90% of bicyclists killed in 2000 were reported as not wearing a helmet. (*Insurance Institute for Highway Safety, 2001*)
2. Universal helmet use by children ages 4 to 15 would prevent 39,000 to 45,000 head injuries and 18,000 to 55,000 scalp and face injuries annually. (*National Highway Traffic Safety Administration, 2001*)
3. Bicycle helmets are 85% to 88% effective in mitigating head and brain injuries. (*National Highway Traffic Safety Administration, 2001*)

Note to teacher: It is very important to be organized for this lesson because the helmet fit activity can be time consuming. One time-saving option is to do the Instruction section ahead of time.



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Bike Lesson 1 – 3rd Grade

Always Wear Your Helmet

Introduction (10 minutes)

1. *Explain:* Today we will begin to learn about bicycle safety. Learning to ride safely will help you stay healthy and allow you to visit fun places. We will start learning how to be safe bicyclists by watching a 10-minute video.
2. Show “Ride Smart - It’s Time to Start” video.

Instruction (10 minutes)

1. *Ask:* Why should you ALWAYS wear a helmet when riding your bicycle? (To keep you safe, to protect your head and face. You may fall and hit your head even if you are riding in your driveway or away from cars on a bicycle path.)

Egg Drop Demonstration

Note: You may want to do this demonstration separately during a lunch period.

1. Explain that an egg simulates the human brain inside the skull (important material within a fragile shell).
2. Cover a space on the floor with aluminum foil or paper. Ask a student how far from the floor he/she can drop the egg without breaking it. Let the student drop the egg from that distance (The egg will break when dropped from a height of 3”).
3. Make up a clever story about the eggs, by giving them names, such as Eggbert and Shellina. Eggbert goes bicycling without his helmet, falls, and is seriously injured (have the student drop one egg on the floor from a height of 6”). Shellina remembers her helmet. When Shellina falls, she is less likely to be injured severely (Ask another student to hold the other egg high and drop (not throw) it into a box full of styrofoam pieces. The egg should not break.)
4. Show the class a bicycle helmet. Explain that it is constructed with an inside liner of a crushable material like styrofoam. It protects your head in the same way as it protected Shellina when she fell.
5. Emphasize that the helmet is useless unless properly fitted.

Activity (20 minutes)

Proper Helmet Fit

We suggest teachers recruit parent volunteers to help fit all children. Parent volunteers must receive guidelines and practice fitting helmets on their children prior to class.

1. Pass out the “Five Steps for Fitting A Helmet” Handout 3.1.1 and/or display a poster or overhead with the steps on it.

*Make sure that your helmet is a bicycle helmet, with a CPSC, Snell, ATSM or ANSI label. If necessary, use sizing pads to get the helmet to fit the size of your head. The back of the helmet has a thicker base of protective material than the front.

Five Steps for Fitting a Helmet

1. Helmet should be level on your head.
2. The front and back straps should be equally tight and meet at a “V” just below your ear.
3. You should have about 2 fingers of space between your eyebrows and the bottom of your helmet.
4. The chin strap should be tight when you open your mouth. There should be space for one finger between the chin strap and chin when your mouth is closed.
5. A perfectly fit helmet will move the skin on your forehead when moved back and forth.

Note to Teacher: The CPSC is the US Consumer Product Safety Commission (CPSC). The CPSC label for US bicycle helmets “ensures that bicycle helmets provide excellent head protection and that the chin straps are strong enough to keep a helmet on the head and in place during a fall or collision.” You may also find a label indicating it meets one of the following voluntary bicycle helmet safety standards: ASTM, ANSI, or Snell. If a helmet does not have one of these labels, don’t buy it.

2. Pass out surgical caps to the students. The students must wear a surgical cap over their head before wearing their helmet.



3. Demonstrate to the students how to put on a helmet by going through the 5 criteria on yourself. If you have parent volunteers, they can also demonstrate.
4. Have students put on their helmets, following the criteria listed on the handout.
5. Go around to each of the students (with the help of the parent volunteers) to make sure that the helmets are fitted properly.
6. Students should also check each other for proper fit. They can be divided into Groups A, B, C, and D. Group A and Group B can check each other while Group C and Group D check each other. The groups should check all five steps for fitting a helmet and use Helmet Checklist 3.1.2.
7. How should you store and replace your bicycle helmet? (Helmets are fragile and lose their protective value when thrown, hit, or damaged. Any damage that occurs will make the helmet not as safe as it should be. Helmets should always be removed and set down gently and stored safely after riding. They should be replaced every one to two years—form the habit of getting a new one every spring or birthday. **If a helmet is banged hard or is in a crash, it should be replaced immediately.**)

Ask students the following questions.

1. Why are bicycle helmets different from motorcycle helmets? (Motorcycle helmets are too hot for bicyclists: no airflow to cool them.)
2. Why are bicycle helmets different from baseball helmets? (Not all that different – hard shell, soft interior lining. Purpose is the same: Protect head from impact with harder object.)
3. When should bike helmets be replaced? (When a helmet is hit, the foam is compressed. **If your helmet gets in a crash or is banged hard—get a new one!** Discuss effect of sweat and rain on foam – breaks down material – gives too easily in event of impact.)
4. Discuss general wear and tear. (Helmets need to be replaced regularly because of the countless times they are tossed on the ground, tripped over, stepped on, etc.)
5. Discuss the effect of a student’s growth on helmet fit. (When a student’s head grows, the helmet becomes too tight and tends to sit on the back of their head.)

6. How often should you replace your bicycle helmet? (Every one to two years. Students could make sure that they examine the helmet for condition and fit every spring or every birthday and buy a new helmet if needed.)

Optional Exercise:

Have children draw themselves on their bikes, wearing properly fitted helmets. This can either be arranged with the art teacher as an art class activity or can be used as a homework assignment.

Conclusion (2 minutes)

1. Review criteria for proper helmet fit.
2. Emphasize that the students will be able to get on the bicycles and practice riding in the next lesson sooner if they put on their helmets quickly and correctly.



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Five Steps for Fitting a Helmet 3.1.1

*Make sure that your helmet is a bicycle helmet, with a CPSC, Snell, ATSM or ANSI label. If necessary, use sizing pads to get the helmet to fit the size of your head. The back of the helmet has a thicker base of protective material than the front. If a helmet doesn't have one of these labels, don't buy it.

How do I make sure that my helmet is on correctly?

1. The helmet should be level on your head.
2. The front and back straps should be equally tight and meet at a "V" just below your ear.
3. You should have about 2 fingers of space between your eyebrows and the bottom of your helmet.
4. The chin strap should be tight when you open your mouth. There should be space for one finger between the chin strap and chin when your mouth is closed.
5. A perfectly fit helmet will move the skin on your forehead when moved back and forth.



Helmet Fit Checklist 3.1.2.

*Each student checker fills out this form for the student who is fitting his or her helmet.

Name of Student with Helmet _____

Name of Student Checker _____

Classroom Teacher _____

_____ The helmet is level on your head.

_____ The front and back straps are equally tight and meet at a "V" just below your ear.

_____ You have about 2 fingers of space between your eyebrows and the bottom of your helmet.

_____ The chin strap is tight when you open your mouth. There is space for one finger between the chin strap and chin when your mouth is closed.

_____ The helmet moves the skin on your forehead when moved back and forth.

Helmet Size _____ (write this down so that you know what size to get for the next lesson)





Bike Lesson 2 – 3rd Grade

Preparing to Ride

Time: 25 to 35 minutes

Objectives: To learn how to perform safety checks before riding and to practice getting on and off and stopping a bicycle safely.

Maryland Learner Outcomes:

- Health, Health Behaviors (K-3): Describe ways to avoid and reduce threatening or unsafe situations.
- Health, Health Behaviors (K-3): Identify rules that promote health.
- Health, Safety and Injury Prevention (K-3): There are behaviors, such as taking precautions and following rules, that are basic to safe daily living.

Montgomery County Physical Education Indicators:

- Identify appropriate equipment to be used in physical activity settings. (3)
- Apply safe use of equipment. (3)
- Respect and accept peer assistance. (3)

Materials: Bike Parts Diagram 3.2.1; “YOU check” Handout 3.2.2 and “ABC Quick Spin check” Handout 3.2.3 (the text for these is provided after the lesson outline). 2-5 Adult volunteers trained on proper bike fit and seat adjustment (training consists of reading the few sentences of the curriculum on these topics, and performing the checks with their student on his/her bike). *Note that the following items will be available in the supply trailer:* Helmet for each student (small, medium, and large sizes are provided). Surgical cap for each student. Properly sized, well maintained bike for each student. Rope, chalk, cones, roll of wide masking tape, or bean bags.

Plan Ahead: Make copies of Bike Parts Diagram 3.2.1. Recruit parent volunteers to assist with “YOU check”, “ABC Quick Spin check”, and bicycle fit activities or contact local Safe Kids Coordinator or Community Traffic Safety Program Coordinator for assistance. Set up the stopping and looking exercise with rope, cones, or chalk and make sure the bicycles are out of the trailer before the lesson. You may also want to bring in 2 bikes, one with no problems, and the other with deflated tires, bad brakes, a rusty chain and loose crank, etc. for demonstrating the ABC Quick Spin check.

Suggested teaching venue: Playground, field, parking lot, community center property, other outdoor space with no traffic, or gym.

Lesson progression:

Introduction

Instruction

Optional Activity

Conclusion



Note to teacher: Here are some statistics about the need for teaching the importance of being visible and riding well-maintained and properly sized bikes.

1. Falling is the main cause of half of all bicycle crashes (*Cross and Fisher, 1977*). Causes of falling include riding a bicycle that is too large.
2. Drivers who claimed that they could not avoid the bicyclist tended to strike children under age 10 and aged 10 to 14 (*Federal Highway Administration, 1996*).

Bike Lesson 2 – 3rd Grade

Preparing to Ride

Note: Teacher should have a bicycle and helmet at the front of the class to demonstrate each of the safety checks. If you choose to do the on-bike activity, set up the tape lines and cones before class.

Introduction (1 minute)

Explain: In this lesson we will learn how to check yourself, check if your bicycle fits you, and check the bicycle itself for mechanical safety before you begin to ride. We will also have our first on-bike activity.

1. Pass out Bike Parts Diagram 3.2.1. Go over the parts of a bicycle; explain that you will be using these terms throughout the bicycle unit.

Instruction (20 minutes)

YOU Check

1. Display the “YOU check” Handout 3.2.2.
2. Select a student to come to the front of the room.
3. Point out the four parts of the “YOU check” on the student volunteer:

(a) **wearing a properly fitted helmet.** Ask students why this is important (have them recall the results of the egg drop demonstration).

(b) **wearing brightly colored clothing.** Ask students why this is important (you might pick two students, one wearing bright colors, the other wearing grays and browns, have them walk to the end of a corridor, ask the students who is more visible, tell them wearing bright clothing helps drivers see them in the same way).

(c) **having no dangling shoe laces, pant legs, etc.** Ask students why this is important (getting loose clothing caught in the chain or the spokes will lead to a fall).

(d) **NOT wearing headphones or anything else that could block sound or distract someone while bicycling.** Ask students why this is important (headphones make it more difficult to see and hear traffic).

(e) **Don’t carry anybody else on your bike.** You could both fall and get hurt.

Bike Fit Check

1. Have students stand over the frame of their bikes. There needs to be 1” to 3” of clearance over the top tube. If a student cannot straddle the bar, with his/her feet flat on the ground, the bike is too big. If there is greater than 3” of clearance, the bike is too small, unless you are riding a BMX or freestyle bicycle.
2. Adjust the bike seat. Third and fourth graders should be able to put their feet flat on the ground while seated. If parent volunteers are available, they can assist checking seat adjustments.

ABC Quick Spin Check

1. Display the “ABC Quick Spin check” Handout 3.2.3.
2. Describe the elements of the “ABC Quick Spin check”:
 - (a) **A is for air pressure.** Have students squeeze the sides of the tires. The tires should be firm. Tell the students that they should ask a parent to help squeeze the tire until they get stronger.
 - (b) **B is for brakes.** Have students stand over their bikes and squeeze the brakes. The tires should not rotate as the students try to push the bike forward and pull it back. If the bike has coaster brakes, pedal backwards until the pedals stop, keeping pressure on the pedals. The bike should not move when pushing the bicycle forward and backward.



(c) **C is for chain and crank.** Check to make sure the chain is not too loose or rusty. Have students grab the crank arms (the pieces to which the pedals are attached) and try to wiggle them. They should not move.

(d) **Quick is for giving the rest of the bike a quick look.** Check for tight quick release levers (if they are on the bike)—if they don't move easily, they are fine. Look for a tight chain (little to no drooping), tight seat and handlebars, tight and clean reflectors.

(e) **Spin is for spinning the wheels.** Make sure they spin smoothly, don't wobble, and have no broken, missing, or loose spokes.

(f) **Check is for riding the bike in a safe area**—just to check that all is OK before proceeding.

3. Have students perform the “ABC Quick Spin check” on their bikes (teacher and volunteers assist).

Activity (10 minutes)

1. If students learn the safety checks quickly, there may be time to practice stopping and looking.

Stopping

1. Describe the importance of using both hand brakes evenly—using only one will either not stop the bike as quickly or tend to pitch over the bike.
2. If any bikes have coaster brakes, demonstrate how to pedal backward to stop the bike.
3. Demonstrate the procedure to stop and dismount the bike.
 - (a) Slow the speed of the bike by applying the brakes.
 - (b) As the bike nears a stop, slide off the seat and take your right foot off the pedal.
 - (c) Lower the right foot toward the ground as the bike continues to slow.
 - (d) At the moment the bike stops, the right foot should touch the ground.
 - (e) Have the students repeat this three times.

Stopping and Looking Exercise

One way to set up this activity is to have the students ride down a narrowing lane of cones or rope.

1. Have students start about 50 yards from where you will stand and mark two lines (about 10 yards apart) with tape or cones.

2. Have the students ride toward you, apply the brakes at the first line, and come to a complete stop before the second line.
3. While stopped, the student will look to the left, to the right, and again to the left before starting to ride again. While students practice stopping, have volunteers holding cardboard cars move back and forth across the riding path to have students practice looking for cars.
4. Emphasize that it is important to stop and look for traffic because it is very dangerous to start riding before you are sure there are no cars, pedestrians, or other bicyclists coming by.

Conclusion (5 minutes)

1. Review importance of “YOU check” (wearing a properly fitted helmet, bright clothes, no dangling pant legs or shoelaces, no earphones).
2. Review importance of riding a properly sized bike (being able to straddle the top bar and sit comfortably makes the bicycle easier to handle and more fun to ride).
3. Review importance of “ABC Quick Spin check” (avoiding mechanical problems that could be unsafe).

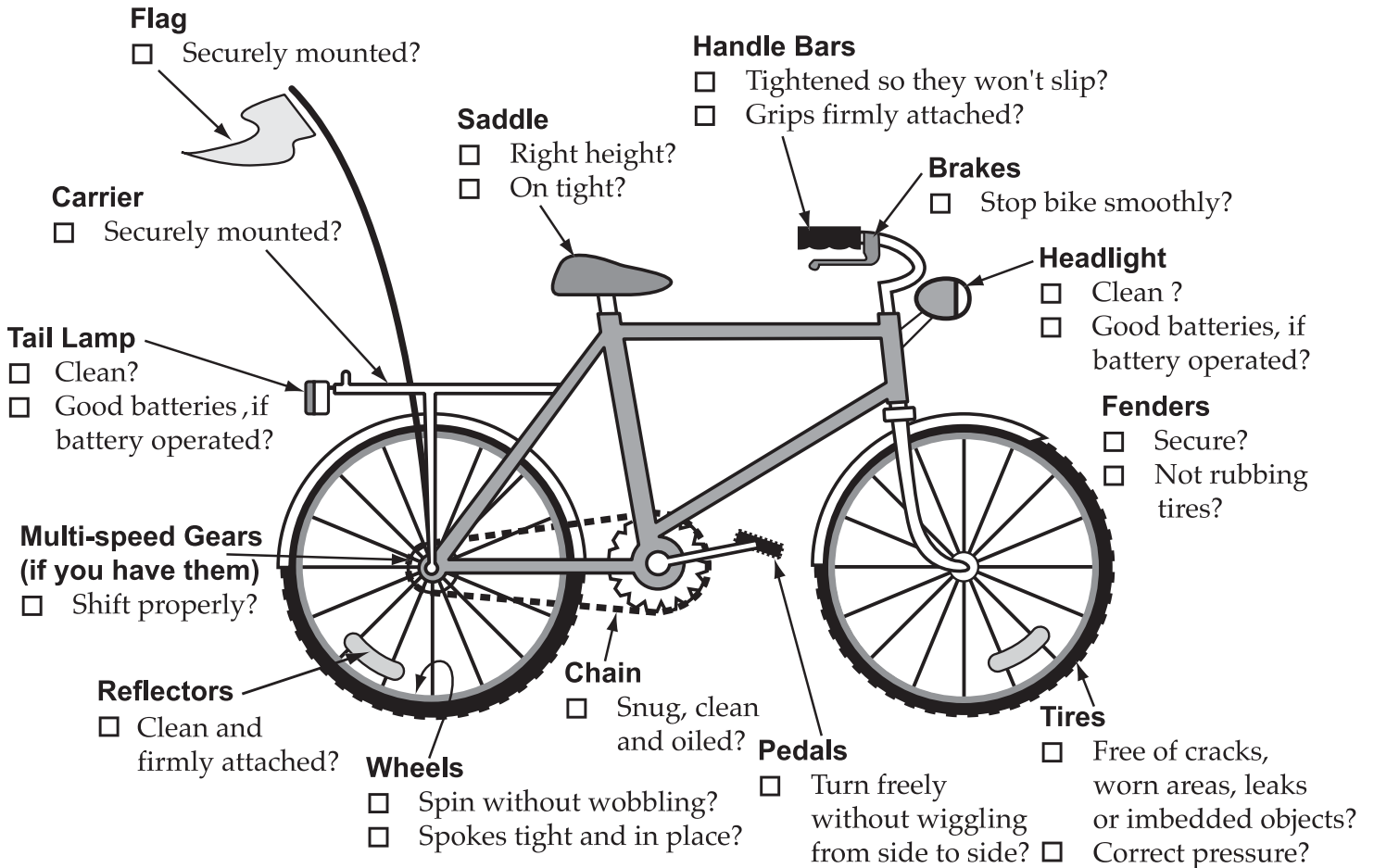


Duval County, FL Health Department



Bike Parts Diagram 3.2.1

Is Your Child's Bike Safe to Ride?



Handout 3.2.2
"YOU Check"

1. Wear a properly fitted helmet.
2. Wear brightly colored clothing.
3. Make sure that you do not have any dangling shoe laces, pant legs, etc.
4. Do not wear headphones or anything else that could block sound or be distracting while bicycling.
5. Don't carry anybody else on your bike.



Toole Design Group



“ABC Quick Spin Check”

1. **A is for air pressure.** Squeeze the sides of the tires to make sure that they are firm.
2. **B is for brakes.** Stand over your bike and squeeze the brakes. The tires should not rotate when you to push the bike forward and pull it back.
3. **C is for chain and crank.** Check to make sure the chain is not too loose or rusty. Have students grab the crank arms (the pieces to which the pedals are attached) and try to wiggle them. They should not move.
4. **Quick is for giving the rest of the bike a quick look.** Check for tight quick release levers (if they are on the bike)—if they don’t move easily, they are fine. Look for a tight chain (little to no drooping), tight seat and handlebars, tight and clean reflectors.
5. **Spin is for spinning the wheels.** Make sure they spin smoothly, don’t wobble, and have no broken spokes.





Bike Lesson 3 - 3rd Grade

Learning About Traffic Laws and Hazards

Time: 45 minutes

Objective: To show students that they need to consider their bikes as vehicles. As safe drivers, they are responsible to understand and follow the rules of the road and all traffic laws. As safe drivers, they also need to recognize and deal with the most common hazards faced by cyclists.

Maryland Learner Outcomes:

- Health, Health Behaviors (K-3): Identify rules that promote health.
- Health, Health Behaviors (K-3): Compare behaviors that are safe to those that are risky.
- Health, Safety and Injury Prevention (K-3): There are behaviors, such as taking precautions and following rules, that are basic to safe daily living.

Montgomery County Physical Education Indicators:

- Become aware of and respond to the specificity of the activity environment. (3)

Materials: Bicycling Hazards Overhead/Handout 3.3.1. Bicycle Safety Rules Homework Assignment 3.3.2. Sign Handouts 3.3.3. Bicycle Rules of the Road Handout 3.3.4. *Note that the following items may also be available in the supply trailer:* Mock stop sign, stop light, yield sign, pedestrians in crosswalk sign, and railroad crossing sign.

Suggested Teaching Venue: This can be done as a classroom activity or as an indoor lesson on a rainy day, or it can be combined with an outdoor lesson, if time is available.

Plan Ahead: Make an overhead or handouts of Bicycling Hazards Overhead/Handout 3.3.1., Sign Handouts 3.3.3, and Bicycle Rules of the Road Handout 3.3.4. You may want to invite a police officer, fire fighter, or other community leader to talk about safety and traffic laws as a part of this lesson.

Vocabulary: Traffic laws, hazards

Lesson Progression:

Introduction
Instruction
Conclusion



Note to teacher: Here are some statistics about the need to learn these basic bicycling skills.

1. Cycling skill is the single greatest contributing factor in bicycle crashes. Young children and teenagers are more often the cause of their own car-bike collisions, whereas motorist error is often the cause of car-bike collisions involving adult cyclists. (*Bicycle Crash and Collision Facts, Citizens for Safe Cycling, 2001*).
2. Children aged 10 to 14 are involved in more than their share of crashes with the following bicycle maneuvers: "right turn", "left turn", "entering the roadway", "traveling the wrong way", "crossing mid-block", and "swerving left or right". (*Federal Highway Administration, 1996*)
3. Bicyclists aged 10 to 14 have more than their share of the following contributing crash factors: "yield violation", "stop sign violation", "traffic signal violation", "exceeding safe speed", "improper lane change/use", "improper turn", "safe movement violation", "inattention", "reckless or stunt riding", "swerved left", "came off sidewalk at intersection", "improper passengers", and "didn't see vehicle". (*Federal Highway Administration, 1996*)

Bicycle Safety Lesson 3 - 3rd Grade

Learning About Traffic Laws and Hazards

Introduction (3 minutes)

Explain: Today you will learn the basic laws you need to follow to ride your bike safely. But even when obeying these laws, there are potential dangers to riding a bike. We will discuss what some of these are, and how to avoid them.

1. Ask the students: What would happen if there were no stop signs, no stop lights, and no speed limits? (There would be chaos, lots of collisions, many people would get hurt.)
2. Explain that's why we need **traffic laws**. We need to understand what they are, and we need to follow them.

Instruction (30 minutes)

Traffic Signs and Rules

1. Begin by saying: "Your bicycle is a vehicle."
2. Explain that bike riders are drivers. Just like drivers of cars and trucks, they are responsible for obeying traffic laws, operating their bicycles in a safe manner, and maintaining their bicycles in a safe condition.
3. Show the students the following signs from the program trailer or make copies or overheads of Sign Handouts 3.3.3 and ask for their meaning:
 - (a) **Stop sign.** (Stop. You need to put your foot on the ground.)

(b) **Stop light.** Also ask what red (stop), yellow (proceed with caution because signal is about to turn red), and green (go) mean.

(c) **Yield sign.** (This means slow down and look for traffic. Stop if a car is coming; keep going if no car is approaching.)

(d) **Crosswalk sign.** (Watch out for people walking in front of you.)

(e) **Railroad crossing sign.** (Watch for trains, be careful not to slip on tracks. The students should walk their bike across railroad tracks.)

4. Explain the proper way to stop, then go, at stop lights, stop signs, and entering the road from a driveway. (The proper technique is to look to the left, to the front, to the right, and to the left again.)
5. Ask: Why is it important to look left twice? (Because a car coming from the left can hit you sooner than a car on your right.)
6. Explain the importance of riding single file. (Children need to avoid riding in the traffic lane.)
7. Ask: If a child or adult ahead of you stops at a stop sign, then goes, do you have to stop, too? (Yes. The vehicles may be closer when you reach the sign, and you must always judge for yourself whether or not it is safe to cross.)



Bicycle Rules of the Road

1. Ask students: Should bicyclists ride with or against traffic? (Ride with traffic; riding against traffic is the #1 cause of bicycle-car collisions.)
2. Ask: Why should bicyclists ride with traffic? (Drivers don't expect to see vehicles in this direction. So, bicyclists riding the wrong way tend to be invisible to drivers. Wrong-way riding is especially dangerous at intersections.)
3. Pass out *Bicycling Rules of the Road Handout 3.3.4*, and go over the rules of the road.

Bicycle Hazards

1. Now we will talk about some common **hazards** that you may face when you bicycle.
2. Show *Bicycling Hazards Overhead/Handout 3.3.1*, picture A. Ask the students: What should you do when you are trying to cross a street, but can't see around a hedge, some trees, or a line of parked cars? (Get off your seat, straddle your bike, walk it to the edge of the barrier, then look left right, left again, then cross.)
3. Show *Bicycling Hazards Overhead/Handout 3.3.1*, picture B. Ask the students: What should you do when riding on wet roads or sand, dirt, or gravel? (Slow down. If possible, take another route.)
4. Show *Bicycling Hazards Overhead/Handout 3.3.1*, picture C. Ask the students: Whose parents make you ride your bike on the sidewalk? For those children, ask: What dangerous situations occur when you ride on the sidewalks? (Mingling with pedestrians, cars entering and leaving driveways. Emphasize they need to be especially careful around driveways– as drivers may be focusing on watching for cars, not bicyclists.)
5. Show *Bicycling Hazards Overhead/Handout 3.3.1*, picture D. Ask the students: Why it is dangerous to ride at night? (Drivers can't see you very well. You can't see potential dangers – potholes, debris – very well.) Tell the students that they should **never ride at night**. In case they do get stuck riding when it gets dark, their bicycle should be equipped with a headlight, wheel reflectors, and a rear light. It is also easier for drivers to see them if they have a reflective vest.

6. Ask the students: Who has been chased by a dog? What should you do when this happens? (Yell a firm “no”. If this doesn't work, stop, get off bike keeping it between you and dog, yell for help. If you have a water bottle, squirt the dog in the face. Then, report the problem to your parents).
7. Explain to students the general rule that when they feel afraid or unsure in a situation – get off their bike and become a pedestrian (e.g. need to cross a busy street, going down a hill too fast).

Bicycle Safety Rules Homework Assignment

1. Hand out two copies of the *Bicycle Safety Rules Homework Assignment 3.3.2*.
2. Ask the students to complete one copy, then review their answers.
3. Ask students to have a parent or another adult to complete the second copy.
4. Have the students compare their answers with the adult's answers, and discuss the differences with them.

Conclusion (5 minutes)

1. Explain other safe riding practices.
 - (a) Keep both hands on handlebars except when signaling.
 - (b) Do not carry other people on your bike.
 - (c) Do not ride while carrying packages.
 - (d) Operate in a predictable manner. (Do not swerve in and out of traffic, no sudden turns.)
2. Remind the students that their bikes are vehicles. This means they need to understand and obey all traffic laws.
3. Remind the students that there are several common situations that can create hazards for bicyclists. Ask them to quickly mention several (wet roads, cracks, debris, visual barriers, etc.).
4. Remind the students that motor vehicle drivers may not always follow the rules, and may not always see bike riders, so be especially careful at intersections and around driveways and parked cars.



Bicycling Hazards Overhead/Handout 3.3.1



Picture A, Visual Barrier



Picture B, Rough Surface



Picture C, Cars Turning



Picture D, Riding in the Dark

all photos: Dan Burden, www.walkinginfo.org



Bicycle Safety Rules Homework Assignment 3.3.2

Answer true or false to each question:

1. Always ride on the left side of the street so you can see the cars coming toward you. ___
2. If you must stop quickly, squeeze both brakes at the same time. ___
3. You should not wear a football or hockey helmet while riding a bike. ___
4. The law says you can ride your bike on whichever side of the street is safer. ___
5. When riding your bike, you must stop at a stop sign when no one else is around. ___
6. It's harder for drivers to see you on a bike than for you to see them. ___
7. If drivers look in your direction they always see you. ___
8. You need to wear a helmet only when you know you are going to ride in traffic. ___
9. Always buy a bike that is a little too big for you so you can grow into it. ___
10. Your bike is a vehicle. ___
11. A yield sign means to go ahead slowly. ___
12. After stopping at a stop sign, you should look left, right, then left again before going. ___
13. Crossing railroad tracks can be slippery. ___

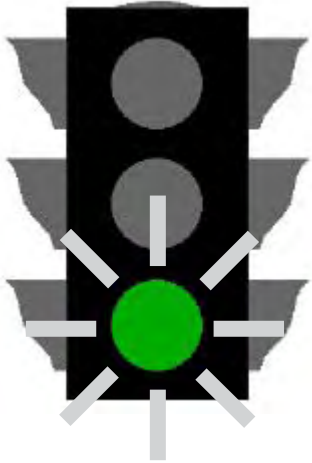


Bicycle Safety Rules Homework Assignment 3.3.2 (Answer key)

1. Always ride on the left side of the street so you can see the cars coming toward you. (F)
2. If you must stop quickly, squeeze both brakes at the same time. (T)
3. You should not wear a football or hockey helmet while riding a bike. (T)
4. The law says you can ride your bike on whichever side of the street is safer. (F)
5. When riding your bike, you must stop at a stop sign when no one else is around. (T)
6. It's harder for drivers to see you on a bike than for you to see them. (T)
7. If drivers look in your direction they always see you. (F)
8. You need to wear a helmet only when you know you are going to ride in traffic. (F)
9. Always buy a bike that is a little too big for you so you can grow into it. (F)
10. Your bike is a vehicle. (T)
11. A yield sign means to go ahead slowly. (F)
12. After stopping at a stop sign, you should look left, right, then left again before going. (T)
13. Crossing railroad tracks can be slippery. (T)



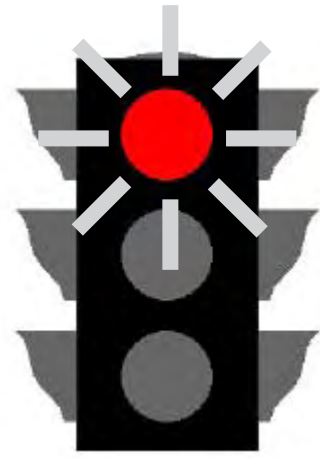
Sign Handouts 3.3.3



Traffic Signal - GO



Traffic Signal - CAUTION



Traffic Signal - STOP



Stop Sign



Yield Sign



Crosswalk Sign



Traffic Signal
Warning Sign



Railroad Crossing Sign



Maryland Bicycle Rules of the Road

- 1) Wear a bicycle helmet (required for children *under* 16 years old).
- 2) Obey all traffic signs and signals.
- 3) Ride in the same direction as motor vehicles, as near to the right side of the road as possible.
- 4) Use hand signals to alert other drivers of lane changes and turns.
- 5) Yield to pedestrians.
- 6) Stop for school buses when they are loading or unloading children.
- 7) Do not wear headphones that cover both ears.
- 8) If it is dark outside, your bicycle must have a front light.
- 9) Your bicycle must have working brakes.





Bicycle Safety Lesson 4 – 3rd Grade

Bike Skills

Time: 35 minutes

Objectives: Teach the students a set of basic bike skills necessary for safe bike riding. In this lesson, the students will learn to scan for traffic and exercise control while riding.

Maryland Learner Outcomes:

- Health, Health Behaviors (K-3): Demonstrate skills to improve or maintain personal health.
- Health, Health Behaviors (K-3): Describe ways to avoid and reduce threatening or unsafe situations.
- Health, Health Behaviors (K-3): Identify rules that promote health.

Montgomery County Physical Education Indicators:

- Develop patterns and combinations of movements into repeatable sequences. (3)
- Apply safe use of equipment. (3)
- Become aware of and respond to the specificity of the activity environment (play area, equipment, weather, etc.) (3)
- Respect and accept peer assistance. (3)
- Enjoy feelings resulting from improvement in physical activity. (3)
- Celebrate personal successes and achievements and those of others. (3)

Materials: Slalom Activity Setup Diagram 3.4.1. *Note that the following items will be available in the supply trailer:* Helmet for each student (small, medium, and large sizes are provided). Surgical cap for each student. Properly sized, well maintained bike for each student. Rope, chalk, cones, roll of wide masking tape, or bean bags.

Suggested Teaching Venue: Playground, field, parking lot, community center property, other outdoor space with no traffic, or gym.

Plan Ahead: Set up the riding lanes and narrow lanes (for steering activity) with rope, cones, or chalk, set up the cones (for slalom activity), and make sure that all bicycles are out of the trailer before the lesson.

Lesson Progression:

Introduction
Instruction and Activity
Conclusion



Note to teacher: Here are some statistics about the need to learn these basic bicycling skills.

1. "Cycling skill is the single greatest contributing factor in bicycle crashes. Young children and teenagers are more often the cause of their own car-bike collisions, whereas motorist error is often the cause of car-bike collisions involving adult cyclists." (*Citizens for Safe Cycling, 2001*)
2. Over 75% of bicycle crashes are intersection-related and over 50% of crashes where the vehicle overtook the cyclist were the result of the cyclist swerving unexpectedly into the motorist's path. (*Thom, 1990*)
3. Bicyclists aged 10 to 14 are involved in more than their share of bicycle crashes in sidewalks, pedestrian crosswalks, alleys, driveways, and parking lots and at locations with stop signs. (*Federal Highway Administration, 1996*)

Bicycle Safety Lesson 4 – 3rd Grade

Bike Skills I

Note: For each activity the teacher should divide the students into groups of 3 to 6. The students will participate in the activities in groups.

Introduction (3 minutes)

Explain: Today we will be reviewing getting on and off the bike and stopping, and learning about maintaining control of the bike and scanning for traffic.

1. After the students take their helmets from the trailer, have them perform the "YOU check", Bike Fit check, and "ABC Quick Spin check".
2. Explain to the students the importance of learning basic bike skills (will help keep them safe when they ride to school, in their neighborhood, to a friend's house, etc.)

Instruction and Activity (30 minutes)

For each activity, have the groups of students go to the starting position at one end of the lanes or line of cones.

For the first two activities, set up 3 to 6 lanes (4'-5' wide, 100'-200' long) using the ropes, chalk, or cones in the trailer.

Review Getting On and Off the Bike

1. Demonstrate, or have a volunteer demonstrate the safe way to get on and off a bike.
 - (a) Straddle the bike with both feet on the ground (demonstrator should not be seated).
 - (b) Raise left pedal to the 10 o'clock position. This provides power to the starting motion.
 - (c) Put left foot on the pedal, other foot on the ground.

(d) Push off with foot on the ground while simultaneously standing on the raised pedal.

(e) Keep both hands on the handlebar for optimum control.

(f) Coast to a stop without pedaling.

(g) Have the students repeat this three times.

Review Stopping

1. Describe the importance of using both hand brakes evenly—using only one will either not stop the bike as quickly or tend to pitch over the bike.
2. If any bikes have coaster brakes, demonstrate how to pedal backward to stop the bike.
3. Demonstrate procedure to stop and dismount the bike.
 - (a) Slow the speed of the bike by applying the brakes.
 - (b) As the bike nears a stop, slide off the seat and take your right foot off the pedal.
 - (c) Lower the right foot toward the ground as the bike continues to slow.
 - (d) At the moment the bike stops, the right foot should touch the ground.
 - (e) Have the students repeat this three times.



Slalom (Use Slalom Activity Diagram 3.4.1.)

Note: It may be easiest to do this activity at a separate, but nearby location that has been set up before the lesson.

1. Place 10 bean bags or cones in a straight line, approximately 10 feet apart. You may wish to make several lines of bean bags or cones so that more than one student can ride at one time.
2. Have the students ride to the right of the first, the left of the second, and so on.
3. Explain that this is another test of their bike control.
4. Have the students repeat this activity at least three times.

Scanning

Scanning means to look over your shoulder and straight ahead for traffic. This is important to do frequently as you ride.

Note: If the students have difficulty keeping the handlebars straight as they scan over their left shoulder, instruct them to drop their right shoulder slightly as they turn to scan.

Stationary Scan

1. Divide students into partners, one on the bike and one off.
2. Have one partner hold the bike for the other partner.
3. The partner holding the bicycle tells the rider to scan.
4. The rider looks over their left shoulder and verbally identifies an object behind them.
5. The objective is for the rider to keep their balance and steer straight.
6. Have the students repeat the exercise and switch partners.

Active Scan

1. While still in partners, have one partner ride in a straight line and the other follow. The partner calls for the cyclist to scan, and then the rider should identify a card (or a number of fingers) that the other partner is holding up while maintaining control of the bicycle.

2. Another option is to have the teacher or a volunteer in a stationary location hold a mock car sign. As the cyclists pass, the person with the sign can call out "SCAN", and put the mock car sign face up (for which the cyclists verbally call out "CAR") or face down (for which the cyclists verbally call out "SAFE"). This may require several rounds of practice before the students can identify the car and maintain riding in a straight line.
3. (Optional) The final time, that the riders do the scanning exercise, they should signal a left turn (left arm extended to the side, index finger pointing to the left) after scanning. This will prepare them for future lessons in which they will signal and turn.

Conclusion (2 minutes)

1. Remind the students to do the "YOU check", the Bike Fit check, and the "ABC Quick Spin check" before riding.
2. Tell the students to practice the skills they have learned in a safe place such as a playground until they have mastered them.



Toole Design Group



Slalom Activity Diagram 3.4.1



- * Alternative: use poly-spots, bean bages, or sponges instead of cones





Bicycle Safety Lesson 5 – 3rd Grade

Bicycling Near Home and Around the World

Time: 25 minutes

Objectives: To understand that bicycles are used around the world for transportation and recreation; that bicycling is an activity that promotes personal and environmental health; and that learning how to ride safely is essential.

Maryland Learner Outcomes:

- Health, Accessing Information (K-3): Describe how culture and media influence health perceptions, decisions, and behaviors.
- Health, Health Behaviors (K-3): Identify personal health needs.
- Social Studies, Peoples of the Nations and the World (K-3): Compare cultures around the world.

Montgomery County Physical Education Indicators:

- Describe healthful benefits that result from regular and appropriate participation in physical activity. (3)

Materials: Pictures of Bicyclists 3.5.1.

Plan Ahead: Make copies of Pictures of Bicyclists 3.5.1.

Suggested teaching venue: Home classroom during general health or social studies unit or in physical education class. However, it could be taught in a local club, by a public service group, or any other community venue.

Lesson progression:

Introduction
Instruction
Conclusion

Note to the teacher: Here are some data about bicycling throughout the world, the need to teach bike safety, and the need to explore increased bicycle use as a means to improve fitness and reduce air pollution.

1. Each year over 500,000 people receive emergency room treatment for bike-related injuries, and more than half of these are children under age 14. (*Florida Traffic and Bicycle Safety Program, 1998*)
2. 25 percent of U.S. children between ages 6 and 18 are either overweight or obese, compared to 16 percent of Russian children and 7 percent of Chinese children. (*University of North Carolina News Service, 2001*)
3. "Less than one-third of Americans meet the federal recommendations to engage in at least 30 minutes of moderate physical activity at least five days a week." (*Department of Health and Human Services, 2000*)
4. "If the environment does not provide safe opportunities for physical activities such as walking and bicycling, adults and children likely will spend more time engaging in sedentary activities indoors." (*Department of Health & Human Services, 2000*)
5. Our children have become "mobility dependent." Almost 75 percent of all trips made by 5-9 year olds, and 65 percent of all trips by 10-15 year olds are made as passengers in private vehicles. About half of America's school children ages 5-15 go to school in this fashion, while another third take the school bus. Only 10 percent walk to school, and less than 2 percent ride a bike. (*Nationwide Personal Transportation Survey, 1995*)



Bicycle Safety Lesson 5 – 3rd Grade

Bicycling Near Home and Around the World

If doing optional activity, teacher should have overhead or PowerPoint projector set up. An alternative is to use pictures of people bicycling in other countries.

Introduction (10 minutes)

Explain: Learning to bicycle safely will help you stay healthy and allow you to visit fun places. Today we will be learning about many different types of bicyclists. (Optional) We will also be finding out about people who bicycle in other countries around the world.

1. Show PowerPoint slides of “Bicyclists from Around the World”.

Instruction (10 minutes)

1. Make copies and pass out the Pictures of Bicyclists 3.5.1.
2. Talk about the many different types of people who bicycle.

Ask the students the following questions.

1. Why do you (or your friends) ride bikes?
2. Why do you suppose adults and children around the world ride bikes? (For fun; exercise and health; convenience – faster than walking; lack of other options – too young to drive a car; environmental health – lack of emissions, no consumption of limited resources; less stressful than driving; cost – cheaper than driving a car.)
3. Why don't more adults and kids bike everyday in the U.S.?
(Friends and stores are too far; streets too dangerous; biking takes too long; bikes are less convenient; adults have busy schedules, lack of public transportation, biking is for children.)
4. What do you think of these reasons? Are they more important than personal health and environmental health?
5. Why should you learn about bike safety? (To help prevent injuries, knowledge of traffic laws and hazards will be helpful when students learn how to drive a car, help students help their parents drive more safely—especially around bicyclists.)

Optional exercise: Have children go to the library or use the internet to find different countries where adults and children bicycle regularly for transportation. Have them pick one country and write a brief report about how adults and children use bicycles there.

Conclusion (2 minutes)

Go over these main concepts.

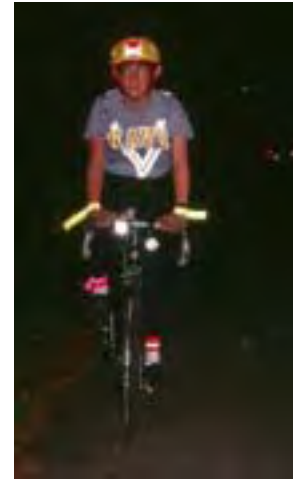
1. Bike riding is fun, good exercise, good for the environment, and inexpensive.
2. Learning how to bike safely is important.



Duval County, FL Health Department



Pictures of Bicyclists 3.5.1.



www.pedbikeimages.org/DanBurden





[www.pedbikeimages.org/Dan Burden](http://www.pedbikeimages.org/Dan_Burden)





Bicycle Safety Lesson 6 – 3rd Grade

Bicycle Field Trip

Time: 50 minutes

Objectives: Demonstrate the ability to safely and legally ride a bike in a real-world situation.

Maryland Learner Outcomes:

- Health, Health Behaviors (K-3): Demonstrate skills to improve or maintain personal health.

Montgomery County Physical Education Indicators:

- Become aware of and respond to the specificity of the activity environment. (3)
- Enjoy feelings resulting from improvement in physical activity. (3)

Materials: Each student should use a properly fitted helmet and a properly sized, well maintained bike from the program trailer. We suggest having one trained teacher for every 10 children, plus an additional adult volunteer for each 10 children.

Community Support: Identify at least one adult volunteer familiar with bicycling. The local office of the state patrol, county sheriff's office, or local police department may also be able to help with the field trip. Another option is to seek help from the local park and recreation department, or call the League of American Bicyclists (1-202-822-1333) for the name of a local League Certified Instructor.

Plan Ahead: The neighborhood ride can be done during the school day or on a weekend (more community volunteers may be able to help on a weekend). Choose a route on local streets with minimal traffic. The route can be one to four miles long, beginning and ending at the school. (As an option, children could be bussed to an area more suitable for a neighborhood ride). Identify places on the route where children can be observed maintaining a straight line even when scanning, riding single file, stopping and starting correctly, turning right and left correctly, maneuvering around a hazard (tree limb, rock, railroad tracks), exercising proper caution at intersections, obeying all traffic signs and signals, correctly entering a roadway from a driveway or alley, and riding on the right side of the road about 3 feet from the curb and parked cars.

Suggested Teaching Venue: Local city streets. This lesson can be taught as part of the physical education curriculum. It can also be offered by the local park and recreation department, the local police department, or by an instructor certified by the League of American Bicyclists.

Lesson Progression:

Introduction

Activity

Conclusion



Note to teacher: Here are some statistics about the need to learn these basic bicycling skills.

1. "Cycling skill is the single greatest contributing factor in bicycle crashes. Young children and teenagers are more often the cause of their own car-bike collisions, whereas motorist error is often the cause of car-bike collisions involving adult cyclists." (*Citizens for Safe Cycling 2001*)
2. Over 75% of bicycle crashes are intersection-related and over 50% of crashes where the vehicle overtook the cyclist were the result of the cyclist swerving unexpectedly into the motorist's path. (*Thom 1990*)
3. Bicyclists aged 10 to 14 have more than their share of bicycle crashes in sidewalks, pedestrian crosswalks, alleys and driveways, parking lots and locations with stop signs. (*Federal Highway Administration 1996*)



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Bike Lesson 6 - 3rd Grade

Bicycle Field Trip

Take the students to the starting point of the neighborhood ride course. It will be helpful to have parent volunteers for this activity.

Introduction (3 minutes)

1. Explain again to the students the importance of learning basic bike skills.
2. Explain that they will be practicing the following skills on the ride: maintaining a straight line even when scanning, riding single file, stopping and starting correctly, turning right and left correctly, maneuvering around a hazard (tree limb, rock, railroad tracks), exercising proper caution at intersections, obeying all traffic signs and signals, correctly entering a roadway from a driveway or alley, and riding on the right side of the road about three feet from curbs and parked cars.
3. Prior to beginning the road test, have children perform the "YOU check", bike fit check, and ABC quick spin check.

Activity (40 minutes)

1. Have the students ride in groups of 10 or less and have at least one teacher and/or one parent-volunteer with each group.
2. Lay out the route on lightly-traveled roads well beforehand. Do not have students demonstrate left turns on roads with more than one lane in each direction. Riding in these conditions is fine for an accomplished rider, but should not be done by children.
3. The route should include opportunities for the children to conduct a left turn, a right turn, stop at an intersection, proceed cautiously through an intersection, exit a driveway onto a roadway, and avoid a hazard. (You may want to place a tree limb or rock on the route ahead of time and warn the students of its approximate location.)
4. While riding, the volunteer can ride in single file, after the first three children. The teacher can ride at the end of the line.

Optional Activity: Skills Test

1. Test students on the skills that they have learned. To do this, set up designated locations for the students to demonstrate specific skills. At each designated stop, the students can be instructed to line up in single file, waiting for the teacher to come up. The teacher can then observe the students' performance of the previous skill, and then explain the next skill to be tested.
2. Repeat the process for each skill.
3. Students pass the test if they have not committed a flagrant safety violation (not stopping at a stop sign, not scanning before turning, etc.)

Conclusion (7 minutes)

1. Review the fun things that occurred on the ride.
2. Have students raise their hands to say what they liked most about the ride.
3. Review the children's performance on the ride, congratulate them on good skills and safe behaviors.
4. Remind them of any problems you observed.
5. Remind them; again, to NEVER ASSUME other drivers see them or that other drivers will act in a safe manner.



Duval County, FL Health Department



4th Grade Bicycle Safety Lessons



City of Rockville

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Bicycle Safety Lesson 1 - 4th Grade

Always Wear Your Helmet

Time: 35 minutes

Objectives: To understand the importance of always wearing a helmet when biking. Demonstrate how to properly fit a helmet (be able to check the five steps). Learn how to care for and replace a helmet. Understand that adults use helmets in a variety of occupations and activities.

Maryland Learner Outcomes:

- Health, Goal Setting and Decision Making (4-5): Predict how decisions regarding health behaviors have consequences for self and others.
- Health, Disease Prevention (4-5): There are relationships between positive health behaviors and the prevention of injury, illness, disease, and premature death.
- Health, Safety and Injury Prevention (4-5): There are ways to eliminate or modify specific hazardous situations.

Montgomery County Physical Education Indicators:

- Identify potential risks associated with physical activities. (4-5)

Materials: TV, VCR, “Ride Smart – It’s Time to Start” Video (provided with program materials); “Criteria for Proper Helmet Fit” Handout 4.1.1 (provided after the lesson outline), Helmet Fit Checklist 4.1.2., Sample helmet for melon drop, 2 ripe melons, sturdy tape, 1 large piece of aluminum foil (or paper if aluminum is not available), Paper or drawing material, 2-5 adult volunteers to assist with helmet fit (it only takes a few minutes to train these volunteers). *Note that the following items will be available in the supply trailer:* Helmet for each student (small, medium, and large sizes are provided). Surgical cap for each student. If the trailer is not available, it may be possible to get a separate bucket of helmets through the program.

Suggested teaching venue: Physical education (great rainy day activity) bicycle unit, home classroom during general health or science units, after school program, or club or other community group meeting.

Plan Ahead: One week before the outdoor bike activities, recruit parent volunteers to assist with helmet fit activity or contact local Safe Kids Coordinator or Community Traffic Safety Program Coordinator for assistance. You can also contact the League of American Bicyclists for the names of local League Certified Instructors who might be available to assist. Make copies, overhead, or poster of “Five Steps for Fitting a Helmet” Handout 4.1.1, make copies of Helmet Fit Checklist 4.1.2. Arrange to have helmets in the classroom.

Lesson progression:

Introduction
Instruction
Activity
Conclusion



Note to teacher: Here are some statistics about the need for teaching the importance of wearing a properly fitted helmet.

1. 90% of bicyclists killed in 2000 were reported as not wearing a helmet. (*Insurance Institute for Highway Safety, 2001*)
2. Universal helmet use by children ages 4 to 15 would prevent 39,000 to 45,000 head injuries and 18,000 to 55,000 scalp and face injuries annually. (*National Highway Traffic Safety Administration, 2001*)
3. Bicycle helmets are 85% to 88% effective in mitigating head and brain injuries. (*National Highway Traffic Safety Administration, 2001*)



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Bike Lesson 1 - 4th Grade

Always Wear Your Helmet

Note to teacher: It is very important to be organized for this lesson because the helmet fit activity can be time consuming. One time-saving option is to do the Instruction section ahead of time.

Introduction (10 minutes)

1. *Explain:* Today we will begin to learn about bicycle safety. Learning to ride safely will help you stay healthy and allow you to visit fun places. We will start learning how to be safe bicyclists by watching a 10-minute video.
2. Show “Ride Smart – It’s Time to Start” video.

Instruction (10 minutes)

1. *Ask:* Why should you ALWAYS wear a helmet when riding your bicycle? (To keep you safe, to protect your head and face. You may fall and hit your head even if you are riding in your driveway or away from cars on a bicycle path.)

Melon Drop Demonstration

Note: You may want to do this demonstration separately during a lunch period.

1. Recall the egg drop demonstration from last year, if applicable.
2. Explain that a melon better simulates a human head than does an egg – still has important material inside a fragile shell, and is closer in size and weight to a human head.
3. Drop a ripe melon from about six feet onto the aluminum foil covering the floor. The melon will burst or sustain obvious damage. (If it does not burst, save it in class for a few days. The melon will bruise and soften where it sustains the impact and the damage will be obvious. The same holds true for our brain.)
4. Snugly wrap another melon into a helmet. Drop the helmet and melon from the same height. The melon should be intact.
5. Emphasize that a helmet is useless unless properly fitted.

Activity (20 minutes)

Proper Helmet Fit

We suggest teachers recruit parent volunteers to help fit all children. Parent volunteers must receive guidelines and practice fitting helmets on their children prior to class.

1. Pass out the “Five Steps for Fitting a Helmet” Handout 4.1.1 or display a poster or overhead with the five steps.

*Make sure that your helmet is a bicycle helmet, with a CPSC, Snell, ATSM or ANSI label. If necessary, use sizing pads to get the helmet to fit the size of your head. The back of the helmet has a thicker base of protective material than the front.

Five Steps for Fitting a Helmet

1. Helmet should be level on your head.
2. The front and back straps should be equally tight and meet at a “V” just below your ear.
3. You should have about 2 fingers of space between your eyebrows and the bottom of your helmet.
4. The chin strap should be tight when you open your mouth. There should be space for one finger between the chin strap and chin when your mouth is closed.
5. A perfectly fit helmet will move the skin on your forehead when moved back and forth.

Note to Teacher: The CPSC is the US Consumer Product Safety Commission (CPSC). The CPSC label for US bicycle helmets “ensures that bicycle helmets provide excellent head protection and that the chin straps are strong enough to keep a helmet on the head and in place during a fall or collision.” You may also find a label indicating it meets one of the following voluntary bicycle helmet safety standards: ASTM, ANSI, or Snell. If a helmet does not have one of these labels, don’t buy it.

2. Pass out surgical caps to the students. The students must wear a surgical cap over their head before wearing their helmet.



- Demonstrate to the students how to put on a helmet by going through the 5 criteria on yourself. If you have parent volunteers, they can also demonstrate.
- Have students put on their helmets, following the criteria listed on the handout.
- Go around to each of the students (with the help of the parent volunteers) to make sure that the helmets are fitted properly.
- Student should also check each other for proper fit. They can be divided into Groups A, B, C, and D. Group A and Group B can check each other while Group C and Group D check each other. The groups should check all five steps for fitting a helmet and use Helmet Checklist 4.1.2.
- How should you store and replace your bicycle helmet? (Helmets are fragile and lose their protective value when thrown, hit, or damaged. Any damage that occurs will make the helmet not as safe as it should be. Helmets should always be removed and set down gently and stored safely after riding. They should be replaced every one to two years—form the habit of getting a new one every spring or birthday. **If a helmet is banged hard or is in a crash, it should be replaced immediately.**)

Ask students the following questions.

- Why are bicycle helmets different from motorcycle helmets? (Motorcycle helmets are too hot for bicyclists: no airflow to cool them.)
- Why are bicycle helmets different from baseball helmets? (Not all that different – hard shell, soft interior lining. Purpose is the same: Protect head from impact with harder object.)
- When should bike helmets be replaced? (When a helmet is hit, the foam is compressed. **If your helmet gets in a crash or is banged hard—get a new one!** Discuss effect of sweat and rain on foam – breaks down material – gives too easily in event of impact.)
- Discuss general wear and tear. (Helmets need to be replaced regularly because of the countless times they are tossed on the ground, tripped over, stepped on, etc.)
- Discuss the effect of a student’s growth on helmet fit. (When a student’s head grows, the helmet becomes too tight and tends to sit on the back of their head.)

- How often should you replace your bicycle helmet? (Every one to two years. Students could make sure that they examine the helmet for condition and fit every spring or every birthday and buy a new helmet if needed.)

Optional Exercise:

Have children draw themselves on their bikes, wearing properly fitted helmets. This can either be arranged with the art teacher as an art class activity or can be used as a homework assignment.

Conclusion (2 minutes)

- Review criteria for properly fitted helmet.
- Have students pair up and check each other’s helmet for proper fit.
- Review other sports and activities in which participants always wear helmets – helmets are cool and not just for kids.
- Emphasize that the students will be able to get on the bicycles and practice riding in the next lesson sooner if they put on their helmets quickly and correctly.



Toole Design Group



Five Steps for Fitting a Helmet 4.1.1

Make sure that your helmet is a bicycle helmet, with a CPSC, Snell, ATSM or ANSI label. If necessary, use sizing pads to get the helmet to fit the size of your head. The back of the helmet has a thicker base of protective material than the front. If a helmet doesn't have one of these labels, don't buy it.

How do I make sure that my helmet is on correctly?

1. The helmet should be level on your head.
2. The front and back straps should be equally tight and meet at a "V" just below your ear.
3. You should have about 2 fingers of space between your eyebrows and the bottom of your helmet.
4. The chin strap should be tight when you open your mouth. There should be space for one finger between the chin strap and chin when your mouth is closed.
5. A perfectly fit helmet will move the skin on your forehead when moved back and forth.



Helmet Fit Checklist 4.1.2.

*Each student checker fills out this form for the student who is fitting his or her helmet.

Name of Student with Helmet _____

Name of Student Checker _____

Classroom Teacher _____

_____ The helmet is level on your head.

_____ The front and back straps are equally tight and meet at a "V" just below your ear.

_____ You have about 2 fingers of space between your eyebrows and the bottom of your helmet.

_____ The chin strap is tight when you open your mouth. There is space for one finger between the chin strap and chin when your mouth is closed.

_____ The helmet moves the skin on your forehead when moved back and forth.

Helmet Size _____ (write this down so that you know what size to get for the next lesson)





Bicycle Safety Lesson 2 – 4th Grade

Preparing to Ride Safely

Time: 35 minutes

Objectives: To review how to do safety checks before riding and to practice stopping and making eye contact.

Maryland Learner Outcomes:

- Health, Health Behaviors (4-5): Explain the importance of assuming responsibility for personal health behavior.
- Health, Health Behaviors (4-5): Demonstrate ways to avoid and reduce threatening situations.
- Health, Goal Setting & Decision Making (4-5): Apply strategies and skills needed to attain personal health goals.
- Health, Safety and Injury Prevention (4-5): There are ways to eliminate or modify specific hazardous situations.

Montgomery County Physical Education Indicators:

- Identify potential risks associated with physical activities. (4-5)

Materials: Bike Parts Diagram 4.2.1, “YOU check” poster 4.2.2 and “ABC Quick Spin check” poster 4.2.3 (the text for these is provided after the lesson outline). 2-5 Adult volunteers trained on proper bike fit and seat adjustment (training consists of reading the few sentences of the curriculum on these topics, and performing the checks with their student on his/her bike). *Note that the following items will be available in the supply trailer:* of wide masking tape, or bean bags.

Plan Ahead: Make copies of Bike Parts Diagram 4.2.1. Set up the riding lanes with rope, cones, or chalk and make sure the bicycles are out of the trailer before the lesson. You may also want to bring in 2 bikes, one with no problems, and the other with deflated tires, bad brakes, a rusty chain and loose crank, etc. for demonstrating the ABC Quick Spin check.

Suggested teaching venue: Playground, field, parking lot, community center property, other outdoor space with no traffic, or gym.

Lesson progression:

Introduction
Instruction
Activity
Conclusion

Note to teacher: Here are some statistics about the need for teaching the importance of being visible and riding well-maintained and properly sized bikes.

1. Falling is the main cause of half of all bicycle crashes (*Cross and Fisher, 1977*). Causes of falling include riding a bicycle that is too large.
2. Drivers who claimed that they could not avoid the bicyclist tended to strike children under age 10 and aged 10 to 14 (*Federal Highway Administration, 1996*).



Bike Lesson 2 – 4th Grade

Preparing to Ride Safely

Note: Teacher should have bicycle and helmet at the front of the class to demonstrate each of the safety checks. Set up 6 to 8 (8' to 10' wide, 100' to 200' long) riding lanes using rope, cones, chalk, etc. before class.

Introduction (1 minute)

Explain: In this lesson we will review the importance of checking yourself, checking if your bicycle fits you, and checking the bicycle itself for safety before you begin to ride. We will also have our first on-bike activity.

1. Pass out Bike Parts Diagram 4.2.1. Go over the parts of a bicycle; explain that you will be using these terms throughout the bicycle unit.

Instruction (15 minutes)

YOU Check

1. Review the “You check” by displaying the “YOU Check” Handout 4.2.2.
2. The elements of the “YOU check” are:
 - (a) Wear a properly fitted helmet.
 - (b) Wear brightly colored clothing.
 - (c) Make sure that you do not have any dangling shoe laces, pant legs, etc.
 - (d) Do not wear headphones or anything else that could block sound or be distracting while bicycling.
 - (e) Don’t carry anybody else on your bike.

Bike Fit Check

1. Review the “Bike Fit check” by having students stand over the frame of their bikes. There needs to be 1” to 3” of clearance over the top tube. If a student cannot straddle the bar, with his/her feet flat on the ground, the bike is too big. If there is greater than 3” of clearance, the bike is too small, unless you are riding a BMX or freestyle bicycle.
2. Adjust the bike seat. Third and fourth graders

should be able to put their feet flat on the ground while seated. If parent volunteers are available, they can assist checking seat adjustments.

ABC Quick Spin Check

1. Review the “ABC Quick Spin Check” by displaying the “ABC Quick Spin Check” Handout 4.2.3.
2. The elements of the “ABC Quick Spin check” are:
 - (a) A is for air pressure.
 - (b) B is for brakes.
 - (c) C is for chain and crank.
 - (d) Quick is for giving the rest of the bike a quick look.
 - (e) Spin is for spinning the wheels.
3. Have students perform the “ABC Quick Spin check” on their bikes.

Eye Contact

1. Introduce importance of establishing eye contact with drivers.
2. Explain that in addition to wearing bright clothes, it is important to look drivers in the eye (not simply look at the car, but look at the driver) to check if they see you and anticipate what they may do.
3. Stress that drivers may not see you even if you stare at them, but it is important to try.
4. You must establish eye contact at intersections, the end of driveways, and other places where you may cross the path of a car. If you are not sure whether a driver sees you, stop.
5. Go only when you are sure it is safe.
6. Tell the students that you will talk more about establishing eye contact during the bike skills lessons.

Activity (15 minutes)

Stopping and Making Eye Contact

1. Divide students into groups of 4, corresponding to the number of lanes that are set up ahead of time.
2. Have students ride to the end of the lanes and back, one group at a time. Make sure students stay within their lanes.
3. Designate a stopping point halfway down the lanes with a line or cone. Have a student volunteer stand at this location and hold one of the wooden automobile cut-outs.



4. Have the students ride in the lanes to the stopping point (one group at a time).
5. The students should look left, right, and left again for traffic when they stop.
6. As the students arrive, have the volunteer walk across the lanes while holding the automobile cut-out.
7. As the automobile passes, tell the students on bicycles to make eye contact with the “driver” of the automobile.
8. Have the students proceed riding down the lane when the traffic has cleared.
9. Repeat this exercise several times.

Note: This is a good time for teachers to assess the riding ability of the students.

Optional Activity

Snail Race

1. Set up lanes for students to ride in. The lanes should be about 50 feet long, and several students and share a lane
2. Tell students that they will be participating in a special type of race—a race to see who can be the last to finish, while still staying on their bike.
3. Explain that this will help them practice control and balance for when they ride in their own neighborhood.
4. With all the students on their bikes at one end of the lanes, have them start riding towards the other end.
5. If a student puts their foot on the ground does not ride in a straight line, or bumps into another rider, they are disqualified from the race.
6. The last student to cross the finish line at the other end of the lanes is the winner.

Tight Rope

1. Set up lanes that are about 6 to 8 inches apart.
2. Tell students that this activity will help them practice balance and control of their bike.
3. Have the students ride down the lanes and try **not** to touch the ropes that are marking the lanes.

Conclusion (5 minutes)

1. Review importance of “YOU check” (wearing a properly fitted helmet, bright clothes, no dangling pant legs or shoelaces, no earphones).
2. Review importance of riding a properly sized bike (being able to straddle the top bar and sit comfortably makes the bicycle easier to handle and more fun to ride).
3. Review importance of “ABC Quick Spin check” (avoiding mechanical problems that could be unsafe).
4. Review importance of establishing eye contact.

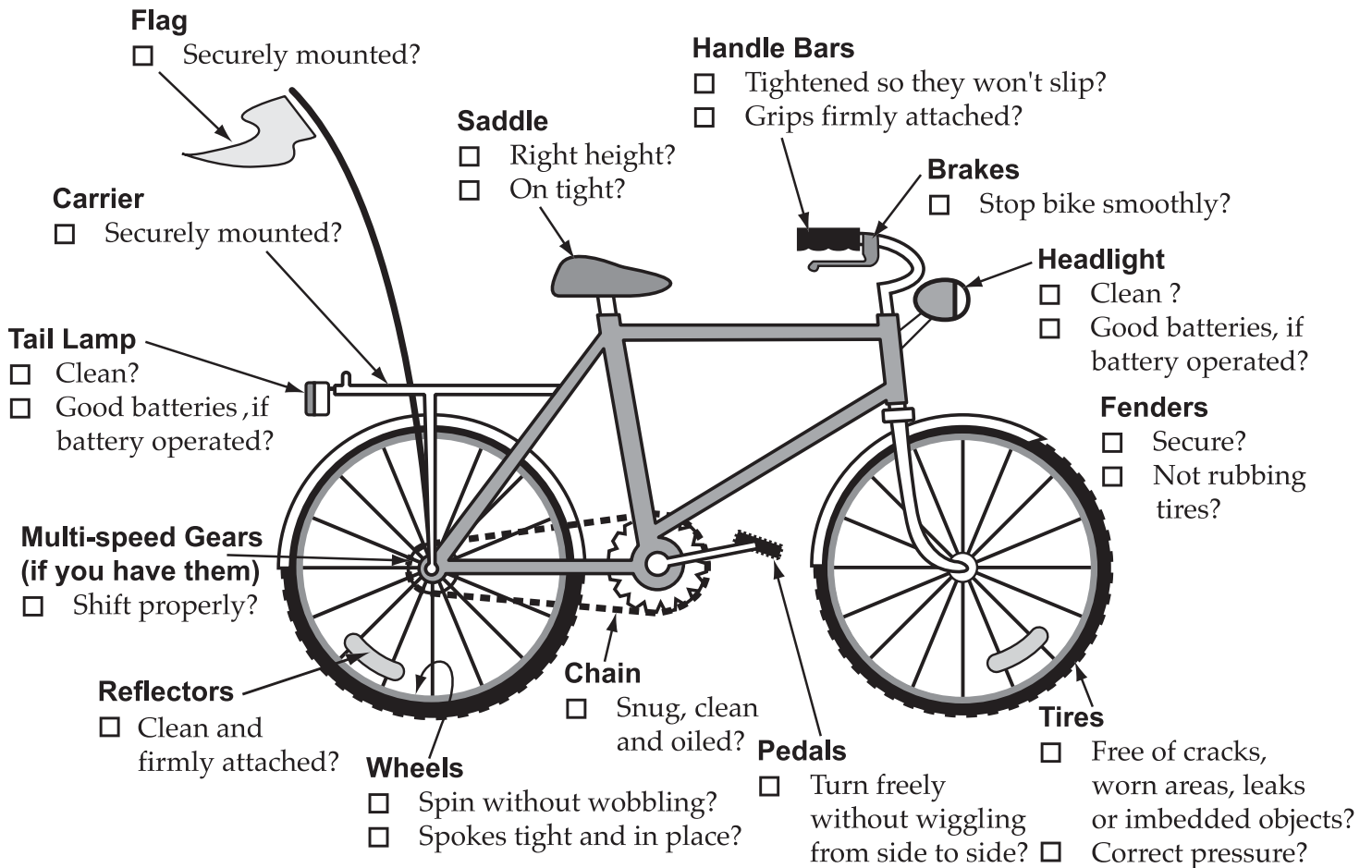


Duval County, FL Health Department



Bike Parts Diagram 4.2.1

Is Your Child's Bike Safe to Ride?



“YOU Check” Handout 4.2.2

“YOU Check”

1. Wear a properly fitted helmet.
2. Wear brightly colored clothing.
3. Make sure that you do not have any dangling shoe laces, pant legs, etc.
4. Do not wear headphones or anything else that could block sound or be distracting while bicycling.
5. Don't carry anybody else on your bike.



“ABC Quick Spin Check”

1. **A is for air pressure.** Squeeze the sides of the tires to make sure that they are firm. It is a good idea to ask a parent to help squeeze the tire until you get stronger.
2. **B is for brakes.** Stand over your bike and squeeze the brakes. The tires should not rotate when you to push the bike forward and pull it back.
3. **C is for chain and crank.** Check to make sure the chain is not too loose or rusty. Have students grab the crank arms (the pieces to which the pedals are attached) and try to wiggle them. They should not move.
4. **Quick is for giving the rest of the bike a quick look.** Check for tight quick release levers (if they are on the bike)—if they don’t move easily, they are fine. Look for a tight chain (little to no drooping), tight seat and handlebars, tight and clean reflectors.
5. **Spin is for spinning the wheels.** Make sure they spin smoothly, don’t wobble, and have no broken, missing, or loose spokes.





Bicycle Safety Lesson 3 - 4th Grade

Learning About Traffic Laws and Hazards

Time: 40 minutes

Objective: To show the students that they need to consider their bikes as vehicles. As safe drivers, they are responsible to understand and follow the rules of the road and all traffic laws. As safe drivers, they also need to recognize and deal with the most common hazards faced by cyclists.

Maryland Learner Outcomes:

- Health, Health Behaviors (4-5): Demonstrate ways to avoid and reduce threatening situations.
- Health, Health Behaviors (4-5): Explain the importance of assuming responsibility for personal health behaviors.
- Writing, Write to Inform (4-5): Connect relevant descriptions, including sensory details, personal experiences, observations, and /or research-based information, linking paragraphs and ideas in ways that make a topic or message clear to the reader

Montgomery County Physical Education Indicators:

- Choose to exercise at home for personal enjoyment and benefit (4-5)
- Identify potential risks associated with physical activities (4-5)
- Identify and be responsible for maintaining a healthy and physically fit lifestyle (4-5)

Materials: Bicycling Hazards Overhead/Handout 4.3.1, Sign Handouts 4.3.2, and Bicycle Rules of the Road Handout 4.3.3. Note that the following items may be available in the supply trailer: Mock stop sign, stop light, yield sign, pedestrians in crosswalk sign, and railroad crossing sign.

Suggested Teaching Venue: This can be done as a classroom activity or as an indoor lesson on a rainy day, or it can be combined with an outdoor lesson, if time is available.

Plan Ahead: Make an overhead or handouts of Bicycling Hazards Overhead/Handout 4.3.1, Sign Handouts 4.3.2, and Bicycle Rules of the Road Handout 4.3.3. You may want to invite a police officer, fire fighter, or other community leader to talk about safety and traffic laws as a part of this lesson.

Lesson Progression:

Introduction
Instruction
Conclusion



Note to teacher: Here are some statistics about the need to learn these basic bicycling skills.

1. Children aged 10 to 14 are involved in more than their share of crashes with the following bicycle maneuvers: “right turn”, “left turn”, “entering the roadway”, “traveling the wrong way”, “crossing mid-block”, and “swerving left or right”. (*Federal Highway Administration, 1996*)

2. Bicyclists aged 10 to 14 have more than their share of the following contributing crash factors: “yield violation”, “stop sign violation”, “traffic signal violation”, “exceeding safe speed”, “improper lane change/use”, “improper turn”, “safe movement violation”, “inattention”, “reckless or stunt riding”, “swerved left”, “came off sidewalk at intersection”, “improper passengers”, and “didn’t see vehicle”. (*Federal Highway Administration, 1996*)

3. Children aged 10 to 14 are involved in approximately 27% of all bicycle crashes. Yet, this age group accounts for over 45% of “bicyclist left turn in front of traffic”, 41% of “bicyclist turn/merge into path of motorist”, 38% of “bicycle right turn”, and 37% of “bicyclist failed to yield, intersection” crash types. (*Federal Highway Administration, 1996, 1997*)

Bicycle Safety Lesson 3 - 4th Grade

Learning About Traffic Laws and Hazards

Introduction (3 minutes)

Explain: Today you will learn or review the basic laws you need to follow to ride your bike safely. But even when obeying these laws, there are potential dangers to riding a bike. We will discuss what some of these are, and how to avoid them.

1. Ask the students: *What would happen if there were no stop signs, no stop lights, no speed limits?* (There would be chaos, lots of collisions, many people would get hurt)
2. Conclude that this is why we need traffic laws. We need to understand what they are, and we need to follow them.

Instruction (35 minutes)

Traffic Signs and Rules

1. Review the third grade discussion and demonstration:
 - (a) Begin by saying: “Your bicycle is a vehicle.”
 - (b) Explain that bike riders are drivers. Just like drivers of cars and trucks, they are responsible for obeying traffic laws, operating their bicycles in a safe manner, and maintaining their bicycles in a safe condition.
 - (c) Show the students the following signs from Sign Handouts 4.3.2 (or use the signs provided

in the trailer) and ask for their meaning: stop sign, the red, yellow, and green colors of a stop light, yield (slow down, stop if car is coming, keep going if no car is approaching), pedestrian crosswalk sign (watch out for people walking in front of you), railroad crossing (watch for trains, be careful not to slip on tracks).

(d) Tell the students to walk their bike across or ride across railroad tracks at a 90 degree angle (straight across, not at an angle) if possible without veering into the traffic lane.

(f) Explain proper way to stop, then go, at stop lights, stop signs, and entering the road from a driveway. (Look to the left, to the front, to the right, and to the left again.)

(g) Ask the students: Why is it important to look left twice? (Because a car coming from the left can hit you sooner than a car on your right.)

(h) Explain the importance of riding in single file. (Children need to avoid riding in the traffic lane.)

(i) Ask: If a child or adult ahead of you stops at a stop sign, then goes, do you have to stop, too? (Yes. The vehicles may be closer when you reach the sign, and you must always judge for yourself whether it is safe to cross.)

2. Ask the students: Given that drivers may not always follow the rules, and may act in dangerous ways, what should you do? (Be especially careful at intersections – whether or not you have the green light. Be careful when riding past parked cars – people may not see you. Be careful when riding past driveways – people may drive out without stopping.)



Bicycle Rules of the Road

1. Ask students: Should bicyclists ride with or against traffic? (Ride with traffic; riding against traffic is the #1 cause of bicycle-car collisions.)
2. Ask: Why should bicyclists ride with traffic? (Drivers don't expect to see vehicles in this direction. So, bicyclists riding the wrong way tend to be invisible to drivers. Wrong-way riding is especially dangerous at intersections.)
3. Tell students about the 3 foot rule. (Make sure to ride on the right side of the road about 3 feet away from parked cars and curbs.)
4. Pass out Bicycle Rules of the Road Handout 4.3.3, and go over the rules of the road.

Bicycling Hazards

1. Show Bicycling Hazards Overhead/Handout 4.3.1., picture A. Ask the students what they should do when they are trying to cross a street, but can't see around a hedge, a line of parked cars? (Get off your bike, walk it to the edge of the barrier, then look left right, left again, then cross).
2. Show Bicycling Hazards Overhead/Handout 4.3.1., picture B. Ask the students what they should do when riding on wet roads or sand, or dirt, or gravel. (Slow down.)
3. Show Bicycling Hazards Overhead/Handout 4.3.1., picture C. Ask the students what dangerous situations occur when you ride on the sidewalks? (Mingling with pedestrians, cars entering and leaving driveways).
4. Show Bicycling Hazards Overhead/Handout 4.3.1., picture D. Ask the students why it is dangerous to ride at night. (Drivers can't see you very well. You can't see potential dangers, such as potholes and debris, very well).
5. Tell the students that they should **never ride at night**. In case they do get stuck riding when it gets dark, their bicycle should be equipped with a headlight, wheel reflectors, and a rear light. It is also easier for drivers to see them if they have a reflective vest.
6. Ask the students what they should do when being chased by a dog. (Yell a firm "no". If this doesn't work, stop, get off bike keeping it between you and dog, yell for help. If you have a water bottle, squirt the dog in the face. Then report the problem to parents).

7. Explain to students the general rule that when they feel afraid or unsure in a situation – get off their bike and become a pedestrian (e.g. need to cross a busy street, going down a hill too fast).

Intersection Observation Homework Assignment

1. Tell the students to go with a parent to a busy intersection near home (one with a stoplight or stop sign).
2. At the intersection, they should watch the traffic for 15 minutes and notice the most common things drivers do wrong (not stopping completely, not signaling, speeding through yellow lights, etc.). These are things the students especially need to watch for when walking, driving a bike, or—when they are older—driving a car.
3. Have students note all hazardous conditions surrounding the intersection – debris on the road, hedges obscuring traffic, narrow or missing shoulders, row of parked cars, driveways, dogs in the area, etc.
4. Ask students to share their observations with their parents.
5. Have them share their observations during the next class period or write a one-page paper describing their observations.

Conclusion (2 minutes)

1. Explain other safe riding practices.
 - (a) Keep both hands on handlebars except when signaling.
 - (b) Do not carry others on your bike.
 - (c) Do not ride while carrying packages.
 - (d) Operate in a predictable manner. (Do not swerve in and out of traffic, no sudden turns.)
2. Remind the students that their bikes are vehicles. This means they need to understand and obey all traffic laws.
3. Review that there are several common situations that can create hazards for bicyclists. Ask the students to quickly mention several (wet roads, cracks, debris, visual barriers, etc.).
4. Remind students that motor vehicle drivers may not always follow the rules, and may not always see bike riders, so be especially careful at intersections and around driveways and parked cars.



Bicycling Hazards Overhead/Handout 4.3.1



Picture A



Picture B



Picture C

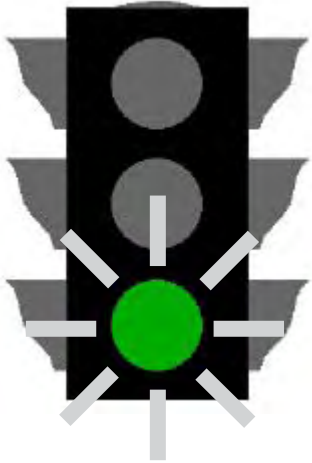


Picture D

www.pedbikeimages.org/DanBurden



Sign Handouts 4.3.2



Traffic Signal - GO



Traffic Signal - CAUTION



Traffic Signal - STOP



Stop Sign



Yield Sign



Crosswalk Sign



Traffic Signal
Warning Sign



Railroad Crossing Sign



Maryland Bicycle Rules of the Road

- 1) Wear a bicycle helmet (required for children *under* 16 years old).
- 2) Obey all traffic signs and signals.
- 3) Ride in the same direction as motor vehicles, as near to the right side of the road as possible.
- 4) Use hand signals to alert other drivers of lane changes and turns.
- 5) Yield to pedestrians.
- 6) Stop for school buses when they are loading or unloading children.
- 7) Do not wear headphones that cover both ears.
- 8) If it is dark outside, your bicycle must have a front light.
- 9) Your bicycle must have working brakes.





Bicycle Safety Lesson 4 - 4th Grade

Bike Skills 1

Time:—35 minutes

Objectives: Teach the students a set of basic bike skills necessary for safe bike riding. In this lesson, the students will review getting on and off the bike, stopping, exercising control while riding, and learn about scanning and signaling.

Maryland Learner Outcomes:

- Health, Health Behaviors (4-5): Demonstrate ways to avoid and reduce threatening situations.
- Health, Health Behaviors (4-5): Demonstrate skills and strategies to improve or maintain personal health.
- Health, Safety and Injury Prevention (4-5): There are hazardous and non-hazardous situations in a variety of environments.
- Health, Safety and Injury Prevention (4-5): There are ways to eliminate or modify specific hazardous situations.
- Health, Nutrition and Fitness (4-5): Physical activity helps develop balance, coordination, rhythm, flexibility, strength, and cardio-respiratory endurance.

Montgomery County Physical Education Indicators:

- Through feedback (e.g., peer, teacher, video) analyze and correct errors in personal movement patterns (4-5)
- Identify potential risks associated with physical activities (4-5)
- Express positive aspects of another’s performance (4-5)

Materials: Hand Signal Handout 4.4.1 and Activity Diagram 4.4.2 (these are provided after the lesson outline). *Note that the following items will be available in the supply trailer:* Helmet for each student (small, medium, and large sizes are provided). Surgical cap for each student. Properly sized, well maintained bike for each student. Rope, chalk, cones, roll of wide masking tape, or bean bags.

Suggested Teaching Venue: Playground, field, parking lot, community center property, other outdoor space with no traffic, or gym.

Plan Ahead: Make copies of Hand Signal Handout 4.4.1; Set up stations for the riding lanes and narrow lanes (for steering activity) with rope, cones, or chalk, set up the cones (for slalom activity), and make sure that all bicycles are out of the trailer before the lesson.

Lesson Progression:

Introduction
Instruction and Activity
Conclusion



Note to teacher: Here are some statistics about the need to learn these basic bicycling skills.

1. "Cycling skill is the single greatest contributing factor in bicycle crashes. Young children and teenagers are more often the cause of their own car-bike collisions, whereas motorist error is often the cause of car-bike collisions involving adult cyclists." (*Citizens for Safe Cycling, 2001*)
2. Over 75% of bicycle crashes are intersection-related and over 50% of crashes where the vehicle overtook the cyclist were the result of the cyclist swerving unexpectedly into the motorist's path. (*Thom, 1990*)
3. Bicyclists aged 10 to 14 are involved in more than their share of bicycle crashes in sidewalks, pedestrian crosswalks, alleys and driveways, and parking lots and at locations with stop signs. (*Federal Highway Administration, 1996*)

Bicycle Safety Lesson 4 - 4th Grade

Bike Skills 1

Note: For each activity the teacher should divide the students into groups of 4. The students will participate in the activities in groups.

Introduction (3 minutes)

Explain: Today we will be reviewing getting on and off the bike, stopping, and steering, and learning about scanning and signaling.

1. After the students take their helmets from the trailer, have them perform the "YOU check", Bike Fit check, and "ABC Quick Spin check".
2. Explain to the students the importance of learning basic bike skills (will help keep them safe when they ride to school, in their neighborhood, to a friend's house, etc.)

Instruction and Activity (30 minutes)

1. Briefly review getting on and off the bike, stopping, steering in a straight line and the slalom by demonstrating each.
2. Have the students do all of the activities below in sequence at a series of stations, if room is available.

Station 1: Stopping

1. Set up 6 to 8 lanes (8'-10' wide, 100'-200' long) using the ropes, chalk, or cones in the trailer.
2. Put two lines of tape/chalk about halfway down the lanes. The first line will be followed by a second line ten feet further down the lanes.

3. The students will ride in their lanes, approach the first line, apply their brakes when they pass this line, and correctly stop and dismount before they reach the second line.
4. Each student will then look left, right, and left again before moving.

Station 2: Steering a Straight Line

1. Set up the rope, tape, chalk lines, or cones so that there are two 6-8 inch wide lanes, separated by about 10 feet.
2. Have pairs of students practice riding within the narrow lanes.
3. Stress the importance of being able to ride in a straight line, without weaving, when out in traffic.

Station 3: Slalom

1. Place 10 bean bags or cones in a straight line, approximately 10' apart. You may wish to make several lines of bean bags or cones so that more than one student can ride at one time.
2. Have them ride to the right of the first, left of the second, and so on.

Stop the students after 10 to 15 minutes and have them gather at a station with 8'-10' lanes.

Turning and Signaling

1. Tell students that they will be practicing right and left turns.
2. Pass out Hand Signal Handout 4.4.1 showing the hand signals.
3. First demonstrate, then have the students do the activity. *Do not practice hand signals until the students have mastered balance.*



Right Turns (Turning Activity Diagram 4.4.2)

(a) Tell the students you want them to ride down the lane, signal a right turn, hold it for three seconds, scan left, front, right, and left again, then turn right at the end of the lane.

(b) *Ask:* What is the signal for a right turn? (Right arm extended to the side, right index finger pointing right.)

(c) *Ask:* Why do you need to scan left, front, right, and left again? (To make sure you see cars, pedestrians and other bicyclists from all three sides of the intersection that might be coming into your path. You need to look left again because cars from this direction could hit you first.)

(d) *Ask:* What do you do if there is a stop sign or red light at the intersection? (Stop. Make your turn only when safe – and after red light turns green.)

(e) Stand at the end of the lane and observe the students.

(f) Have students repeat the process three times.

Left Turns (Turning Activity Diagram 4.4.2)

1. Students will practice scanning and moving to the left part of the lane to make left turns. If students don't feel comfortable merging with traffic to make a left turn, there are two other options (see diagram):

(a) Ride on the right side and continue straight across the intersection to the corner. Stop at the corner. When it is safe, cross the other direction of traffic and then continue riding straight on the right side of the road.

(b) Ride on the right side to the corner of the intersection. Get off your bike, become a pedestrian, and use the crosswalks to get to the opposite corner. Then continue riding.

2. Then do the activity:

(a) Tell students you want them to signal a left turn, hold it while scanning over their left shoulder, move to the left third of the lane (about 3' from the left row of rope, bean bags, cones, etc.), signal a left turn again, scan left, front, right, and left, then turn left at the end of the lane.

(b) *Ask:* What is the signal for a left turn? (Left arm extended to the side, left index finger pointing left.)

(c) *Ask:* Why do you need to scan behind you? (In making a left turn, you will cross the path of any car following behind you.)

(d) *Ask:* Why do you need to move to the left side of the lane before making a left turn? (On the left, you will no longer be in danger of crossing the path of a car behind you.)

(e) *Ask:* Why do you need to signal a left turn a second time? (To alert the vehicles coming from the left, front, and right that you are turning.)

(f) *Ask:* What if you have the green light in your direction, or if the cars in other directions have stop signs or red lights? (Turn only when it is safe)

(g) *Ask:* What do you do if there is a stop sign or red light at the intersection? (Stop. Turn only when safe—and only on a green light.)

(h) Have students repeat the process three times.

Optional Activity

Advance Warning

1. Tell students that they will be practicing how to give a warning when they pass someone on a trail or in a street.
2. Explain that they should always give a warning when they pass someone on a trail or in a street.
3. Have the students group as partners.
4. The first partner should walk ahead into the lane or space where the second partner will be riding and continue walking with their back toward the second partner, who will be riding.
5. Tell the second partner to ride towards the first partner.
6. When the second partner gets within about 15 to 20 feet of the first partner, they should say loudly, "Passing on your right!" or "Passing on your left!"
7. Have the students repeat this several times and then switch partners.

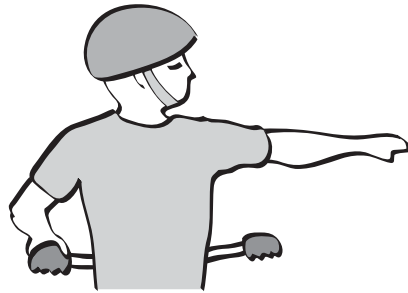
Conclusion (2 minutes)

1. Remind the students to do the "YOU Check", the Bike Fit check, and the "ABC Quick Spin Check" before riding.
2. Tell the students to practice the skills they have learned in a safe place like a playground until they have mastered them.



Hand Signal Handout 4.4.1

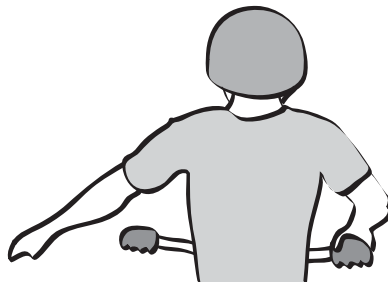
Hand Signals



Right Turn



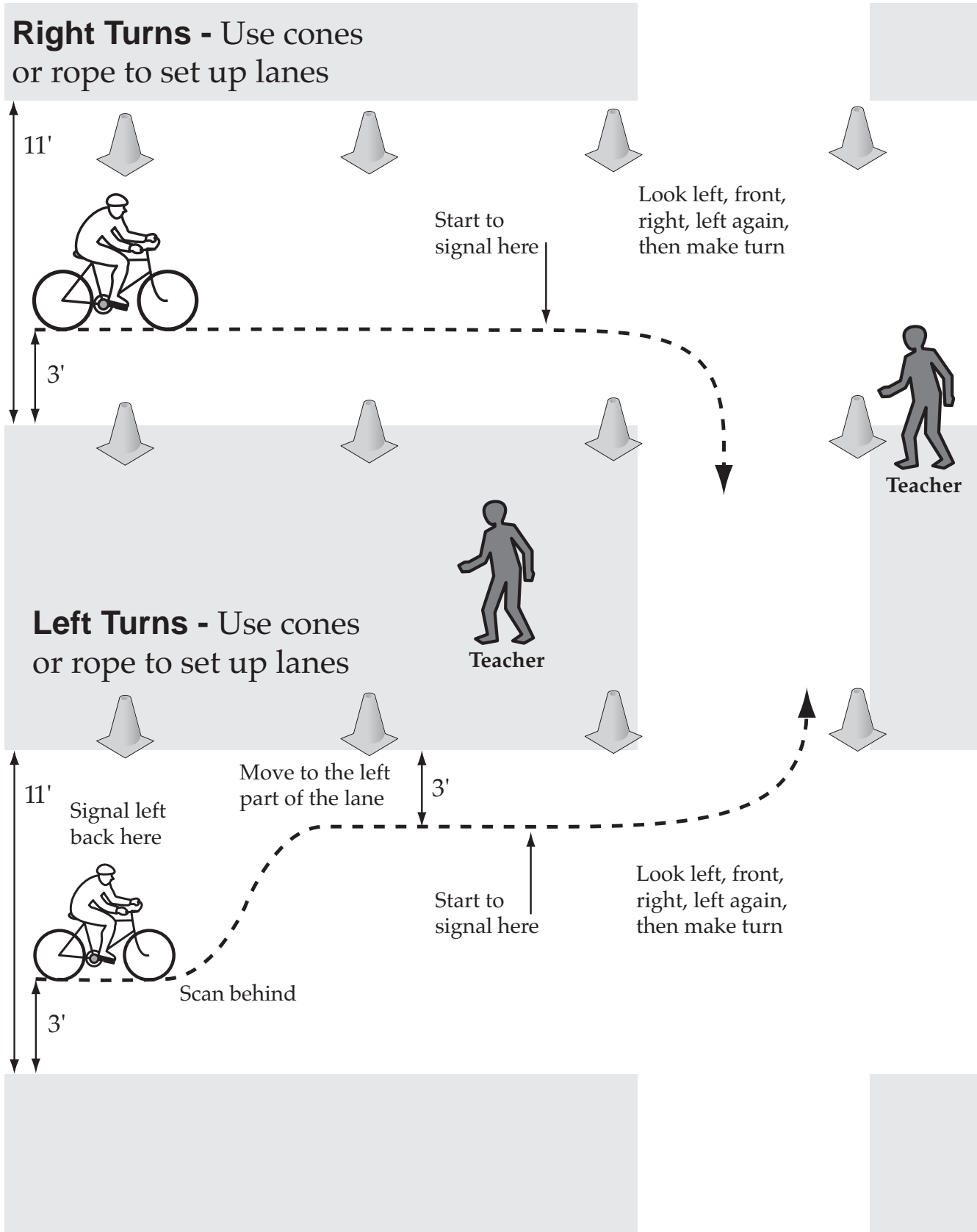
Left Turn



Stop or Slow



Activity Diagram 4.4.2





Bicycle Safety Lesson 5 - 4th Grade

Bicycling Near Home and Around the World

Time: 35 minutes

Objectives: To understand that learning to ride safely is essential and to identify safe and unsafe areas in your neighborhood for bicycling.

Maryland Learner Outcomes:

- Health, Health Behaviors (4-5): Explain the importance of assuming responsibility for personal health behaviors
- Health, Goal Setting & Decision Making (4-5): Predict how decisions regarding health behaviors have consequences for self and others
- Health, Disease Prevention (4-5): There are relationships between positive health behaviors and the prevention of injury, illness, disease, and premature death
- Social Studies, Geography (4-5): Construct and interpret maps using map elements

Montgomery County Physical Education Indicators:

- Identify opportunities in the school and community for regular participation in physical activity (4-5)
- Identify healthy benefits of various games, sports, dance and outdoor pursuits, based on lifetime fitness (4-5)
- Identify and be responsible for maintaining a healthy and physically fit lifestyle (4-5)

Materials: Pictures of Bicyclists 4.5.1.; paper; colored pencils.

Plan Ahead: Make copies of Pictures of Bicyclists 4.5.1.

Suggested teaching venue: Home classroom during general health or social studies unit. However, it could be taught by in a local club, by a public service group, or any other community venue.

Lesson progression:

Introduction
Instruction
Activity
Conclusion



Note to teacher: Here are some data about bicycling throughout the world, the need to teach bike safety, and the need to explore increased bicycle use as a means to improve fitness and reduce air pollution.

1. Each year over 500,000 people receive emergency room treatment for bike-related injuries, and more than half of these are children under age 14. (*Florida Traffic and Bicycle Safety Program, 1998*)
2. 25% of U.S. children between ages 6 and 18 are either overweight or obese, compared to 16% of Russian children and 7% of Chinese children. (*University of North Carolina News Service, 2001*)
3. "Less than one-third of Americans meet the federal recommendations to engage in at least 30 minutes of moderate physical activity at least five days a week." (*Department of Health and Human Services, 2000*)
4. "If the environment does not provide safe opportunities for physical activities such as walking and bicycling, adults and children likely will spend more time engaging in sedentary activities indoors." (*Department of Health&Human Services, 2000*)
5. Our children have become "mobility dependent." Almost 75 percent of all trips made by 5-9 year olds, and 65 percent of all trips by 10-15 year olds are made as passengers in private vehicles. About half of America's school children ages 5-15 go to school in this fashion, while another third take the school bus. Only 10 percent walk to school, and less than 2 percent ride a bike. (*Nationwide Personal Transportation Survey, 1995*)

Bicycle Safety Lesson 5 - 4th Grade

Bicycling Near Home and Around the World

If doing optional activity, teacher should have overhead or PowerPoint projector set up in classroom and video cued so that it can be started quickly. An alternative is to use pictures of people bicycling in other countries.

Introduction (10 minutes)

Explain: Learning to bicycle safely will help you stay healthy and allow you to visit fun places. Today we will be learning about many different types of bicyclists. You will also be mapping bicycling conditions in your neighborhood. (Optional) Show PowerPoint Slides of "Bicyclists from Around the World".

Instruction (10 minutes)

1. Make copies and pass out the Pictures of Bicyclists 4.5.1.
2. Talk about the many different types of people who bicycle.

Quickly review the following questions from the 3rd Grade lesson.

1. Why do you (or your friends) ride bikes?
2. Why do you suppose adults and children around the world ride bikes? (For fun; exercise and health; convenience – faster than walking; lack of other options – too young to drive a car; environmental health – lack of emissions, no consumption of limited resources; less stressful than driving; cost – cheaper than driving a car.)
3. Why don't more adults and kids bike everyday in the U.S?
(Friends and stores are too far; streets too dangerous; biking takes too long; bikes are less convenient; adults have busy schedules, lack of public transportation, biking is for children.)
4. What do you think of these reasons? Are they more important than personal health and environmental health?
5. Why should you learn about bike safety? (To help prevent injuries, knowledge of traffic laws and hazards will be helpful when students learn how to drive a car, help students help their parents drive more safely—especially around bicyclists.)



Ask the following questions about the students' bicycling experience.

1. Who rides their bike to school?
2. Who rides to a store in your neighborhood?
3. Who rides to a friend's house?
4. How would you design a neighborhood where it would be easier to ride to stores, restaurants, movie theaters, schools, and friend's houses? (Answers will include mixed use neighborhoods, where schools and stores can exist near houses, not just in malls; where friends don't live on cul-de-sacs but on connecting streets; where streets have connecting sidewalks; where bike lanes are available, etc.)

Activity (15 minutes)

Have students draw a map of their neighborhood and write what they would change to make it more bicycle and pedestrian friendly.

1. Hand out paper and colored pencils to the students.
Teacher may wish to ask for copies of a map of the neighborhood around the school from the local city planning department before starting this lesson so that students can use it to draw on. If not, students can create their own map on blank paper.
2. Have the students sketch a map of street they live on and other streets in their neighborhood or sketch the streets that they use to go to school.
3. Instruct the students to mark locations that are not fun or safe for walking or bicycling (streets fast cars, areas with many driveways, potholes, no shoulder or bike path for riding, intersections with many turning cars, etc.)
4. Have the students draw or write about how they would change those dangerous locations to make it safer to bicycle and walk (slower cars, add bike lanes and sidewalks, provide special stoplights for bicycles and pedestrians, etc.)

Conclusion (2 minutes)

Go over these main concepts.

1. Bike riding is fun, good exercise, good for the environment, and inexpensive.
2. Learning how to bike safely is important.



www.pedbikeimages.org/DanBurden





Bicycle Safety Lesson 6 - 4th Grade

Bicycle Field Trip

Time: 50 minutes

Objectives: Demonstrate the ability to safely and legally ride a bike in a real-world situation.

Maryland Learner Outcomes:

- Health, Health Behaviors (K-3): Demonstrate skills to improve or maintain personal health.

Montgomery County Physical Education Indicators:

- Through feedback (e.g., peer, teacher, video) analyze and correct errors in personal movement patterns (4-5)
- Identify potential risks associated with physical activities (4-5)
- Identify and be responsible for maintaining a healthy and physically fit lifestyle (4-5)

Materials: Each student should use a properly fitted helmet and a properly sized, well maintained bike from the program trailer. We suggest having at least one trained teacher for every 10 children, plus an additional adult volunteer for each 10 children.

Community Support: Identify at least one adult volunteer familiar with bicycling. The local office of the state patrol, county sheriff's office, or local police department may also be able to help with the field trip. Another option is to seek help from the local park and recreation department, or call the League of American Bicyclists (1-202-822-1333) for the name of a local League Certified Instructor.

Plan Ahead: The neighborhood ride can be done during the school day or on a weekend (more community volunteers may be able to help on a weekend). Choose a route on local streets with minimal traffic. The route can be one to four miles long, beginning and ending at the school (As an option, children could be bussed to an area more suitable for a neighborhood ride). Identify places on the route where children can be observed maintaining a straight line even when scanning, riding single file, stopping and starting correctly, turning right and left correctly, maneuvering around a hazard (tree limb, rock, railroad tracks), exercising proper caution at intersections, obeying all traffic signs and signals, correctly entering a roadway from a driveway or alley, and riding on the right side of the road about 3 feet from the curb and parked cars.

Suggested Teaching Venue: Local city streets. This lesson can be taught as part of the physical education curriculum. It can also be offered by the local park and recreation department, the local police department, or by an instructor certified by the League of American Bicyclists.

Lesson Progression:

Introduction
Activity
Conclusion



Note to teacher: Here are some statistics about the need to learn these basic bicycling skills.

1. "Cycling skill is the single greatest contributing factor in bicycle crashes. Young children and teenagers are more often the cause of their own car-bike collisions, whereas motorist error is often the cause of car-bike collisions involving adult cyclists" (*Citizens for Safe Cycling 2001*)
2. Over 75% of bicycle crashes are intersection-related and over 50% of crashes where the vehicle overtook the cyclist were the result of the cyclist swerving unexpectedly into the motorist's path. (*Thom 1990*)
3. Bicyclists aged 10 to 14 have more than their share of bicycle crashes in sidewalks, pedestrian crosswalks, alleys and driveways, parking lots and locations with stop signs. (*Federal Highway Administration 1996*)

Bicycle Safety Lesson 6 - 4th Grade

Bicycle Field Trip

Take the students to the starting point of the neighborhood ride course. It will be helpful to have parent volunteers for this activity.

Introduction (3 minutes)

1. Explain again to the students the importance of learning basic bike skills.
2. Explain that they will be practicing the following skills on the ride: maintaining a straight line even when scanning, riding single file, stopping and starting correctly, turning right and left correctly, maneuvering around a hazard (tree limb, rock, railroad tracks), exercising proper caution at intersections, obeying all traffic signs and signals, correctly entering a roadway from a driveway or alley, and riding on the right side of the road about three feet from curbs and parked cars.
3. Prior to beginning the road test, have children perform YOU check, bike fit check, and ABC quick spin check.

Activity (40 minutes)

1. Have the students ride in groups of 10 or less and have at least one teacher and/or one parent-volunteer with each group.
2. Lay out the route on lightly-traveled roads well beforehand. Do not have students demonstrate left turns on roads with more than one lane in each direction. Riding in these conditions is fine for an accomplished rider, but should not be done by children.

3. The route should include opportunities for the children to conduct a left turn, a right turn, stop at an intersection, proceed cautiously through an intersection, exit a driveway onto a roadway, and avoid a hazard. (You may want to place a tree limb or rock on the route ahead of time and warn the students of its approximate location.)
4. While riding, the volunteer can ride in single file, after the first three children. The teacher can ride at the end of the line.

Optional Activity: Skills Test

1. Test students on the skills that they have learned. To do this, set up designated locations for the students to demonstrate specific skills. At each designated stop, the students can be instructed to line up in single file, waiting for the teacher to come up. The teacher can then observe the students' performance of the previous skill, then explain the next skill to be tested.
2. Repeat the process for each skill.
3. Students pass the test if they have not committed a flagrant safety violation (not stopping at a stop sign, not scanning before turning, etc.)

Conclusion (7 minutes)

1. Review the fun things that occurred on the ride.
2. Have students raise their hands to say what they liked most about the ride.
3. Review the children's performance on the ride, congratulate them on good skills and safe behaviors.
4. Remind them of any problems you observed.
5. Remind them; again, to NEVER ASSUME other drivers see them or that other drivers will act in a safe manner.



5th Grade Bicycle Safety Lessons



Toole Design Group

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Bike Lesson 1 - 5th Grade

Always Wear Your Helmet

Time: 35 minutes

Objectives: To understand the importance of always wearing a helmet when biking. Demonstrate how to properly fit a helmet (be able to check the five steps). Learn how to care for and replace a helmet. Understand that adults use helmets in a variety of occupations and activities.

Maryland Learner Outcomes:

- Health, Goal Setting and Decision Making (4-5): Predict how decisions regarding health behaviors have consequences for self and others.
- Health, Disease Prevention (4-5): There are relationships between positive health behaviors and the prevention of injury, illness, disease, and premature death.
- Health, Safety and Injury Prevention (4-5): There are ways to eliminate or modify specific hazardous situations.

Montgomery County Physical Education Indicators:

- Identify potential risks associated with physical activities (4-5)

Materials: TV, VCR, “Ride Smart – It’s Time to Start” Video (provided with program materials); “The Brain” Handout 5.1.1.; “Five Steps for Fitting a Helmet” Handout 5.1.2 (provided after the lesson outline), Jello Brain (the night before the lesson, make a brain out of Jell-O using a brain mold. To order the brain mold, visit: www.mcphree.com.), Helmet Fit Checklist 5.1.3, Plastic trash bag, Paper or drawing material, 2-5 adult volunteers to assist with helmet fit (it only takes a few minutes to train these volunteers). *Note that the following items will be available in the supply trailer:* Helmet for each student (small, medium, and large sizes are provided). Surgical cap for each student. If the trailer is not available, it may be possible to get a separate bucket of helmets through the program.

Suggested teaching venue:

Physical education (great rainy day activity) bicycle unit, home classroom during general health or science units, after school program, or club or other community group meeting.

Plan Ahead: One week before the outdoor bike activities, recruit parent volunteers to assist with helmet fit activity or contact local Safe Kids Coordinator or Community Traffic Safety Program Coordinator for assistance. You can also contact the League of American Bicyclists for the names of local League Certified Instructors who might be available to assist. Make copies of “The Brain” Handout 5.1.1; Make copies, overhead, or poster of “Five Steps for Fitting a Helmet” Handout 5.1.2, make copies of Helmet Fit Checklist 5.1.3. Arrange to have helmets in the classroom.

Lesson progression:

Introduction
Instruction
Activity
Conclusion



Note to teacher: Here are some statistics about the need for teaching the importance of wearing a properly fitted helmet.

1. 90% of bicyclists killed in 2000 were reported as not wearing a helmet. (*Insurance Institute for Highway Safety, 2001*)
2. Universal helmet use by children ages 4 to 15 would prevent 39,000 to 45,000 head injuries and 18,000 to 55,000 scalp and face injuries annually. (*National Highway Traffic Safety Administration, 2001*)
3. Bicycle helmets are 85% to 88% effective in mitigating head and brain injuries. (*National Highway Traffic Safety Administration, 2001*)

Bike Lesson 1 – 5th Grade

Always Wear Your Helmet

Note to teacher: It is very important to be organized for this lesson because the helmet fit activity can be time consuming. One time-saving option is to do the Instruction section ahead of time.

Introduction (10 minutes)

1. *Explain:* Today we will begin to learn about bicycle safety. Learning to ride safely will help you stay healthy and allow you to visit fun places. We will start learning how to be safe bicyclists by watching a 10-minute video.
2. Show “Ride Smart – It’s Time to Start” video.

Instruction (10 minutes)

Ask: Why should you ALWAYS wear a helmet when riding your bicycle? (To keep you safe, to protect your head and face. You may fall and hit your head even if you are riding in your driveway or away from cars on a bicycle path.)

Note to teacher: The night before, make a brain out of Jell-O using a brain mold. Your students will really enjoy using it in learning about the importance of wearing a helmet to prevent brain injury. You may want to do this demonstration over a lunch period to save time. To order the brain mold, visit: www.mcphree.com.

Brain Mold Demonstration

1. Distribute “The Brain” handout 5.1.1.
2. Use the handout to help the students compare parts of a real brain to parts of the brain mold (for example, you could point out the part of the brain that is used for vision on the jello brain).

3. *Ask:* How does the brain try to recover from an injury to itself? (The brain gradually learns to use other portions of itself to help compensate for the injured part. But, this can take a very long time and may not be totally successful, depending on the extent of the injury.)
4. *Tell students:* Let’s see what happens when the brain is injured.
5. Drop the jello brain from a height of 4-5 feet onto the garbage bag.
6. Analyze the damage – what part of the brain was hurt?
7. *Ask students:* How difficult do you think it would be to recover from this type of injury?
8. Ask students to consider that helmets are 85% effective in preventing head injuries (i.e. your risk of head injury in a bicycle crash is 85% lower when you are wearing a helmet).
9. *Ask students:* Is it smart to wear a helmet?
10. Emphasize that a helmet is useless unless properly fitted.

Activity (20 minutes)

1. Pass out the “Five Steps for Fitting a Helmet” Handout 5.1.2 and/or display a poster or overhead with the five steps.
**Make sure that your helmet is a bicycle helmet, with a CPSC, Snell, ATSM or ANSI label. If necessary, use sizing pads to get the helmet to fit the size of your head. The back of the helmet has a thicker base of protective material than the front.*
2. Pass out surgical caps to the students. The students must wear a surgical cap over their head before wearing their helmet.



3. Demonstrate to the students how to put on a helmet by going through the 5 criteria on yourself. If you have parent volunteers, they can also demonstrate.
4. Have students put on their helmets, following the criteria listed on the handout.
5. Go around to each of the students (with the help of the parent volunteers) to make sure that the helmets are fitted properly.
6. Student should also check each other for proper fit. They can be divided into Groups A, B, C, and D. Group A and Group B can check each other while Group C and Group D check each other. The groups should check all five steps for fitting a helmet and use Helmet Checklist 5.1.3.

Ask students the following questions:

1. Why are bicycle helmets different from motorcycle helmets? (Motorcycle helmets are too hot for bicyclists: no airflow to cool them.)
2. Why are bicycle helmets different from baseball helmets? (Not all that different – hard shell, soft interior lining. Purpose is the same: Protect head from impact with harder object.)
3. When should bike helmets be replaced? (When a helmet is hit, the foam is compressed. **If your helmet gets in a crash or is banged hard—get a new one!** Discuss effect of sweat and rain on foam – breaks down material – gives too easily in event of impact.)
4. Discuss general wear and tear. (Helmets need to be replaced regularly because of the countless times they are tossed on the ground, tripped over, stepped on, etc.)
5. Discuss the effect of a student’s growth on helmet fit. (When a student’s head grows, the helmet becomes too tight and tends to sit on the back of their head.)
6. How often should you replace your bicycle helmet? (Every one to two years. Students could make sure that they examine the helmet for condition and fit every spring or every birthday and buy a new helmet if needed.)
7. How should you store and replace your bicycle helmet? (Helmets are fragile and lose their protective value when thrown, hit, or damaged. Any damage that occurs will make the helmet not as safe as it should be. Helmets should always be removed and set down gently and

stored safely after riding. They should be replaced every one to two years—form the habit of getting a new one every spring or birthday. **If a helmet is banged hard or is in a crash, it should be replaced immediately.**)

Conclusion (2 minutes)

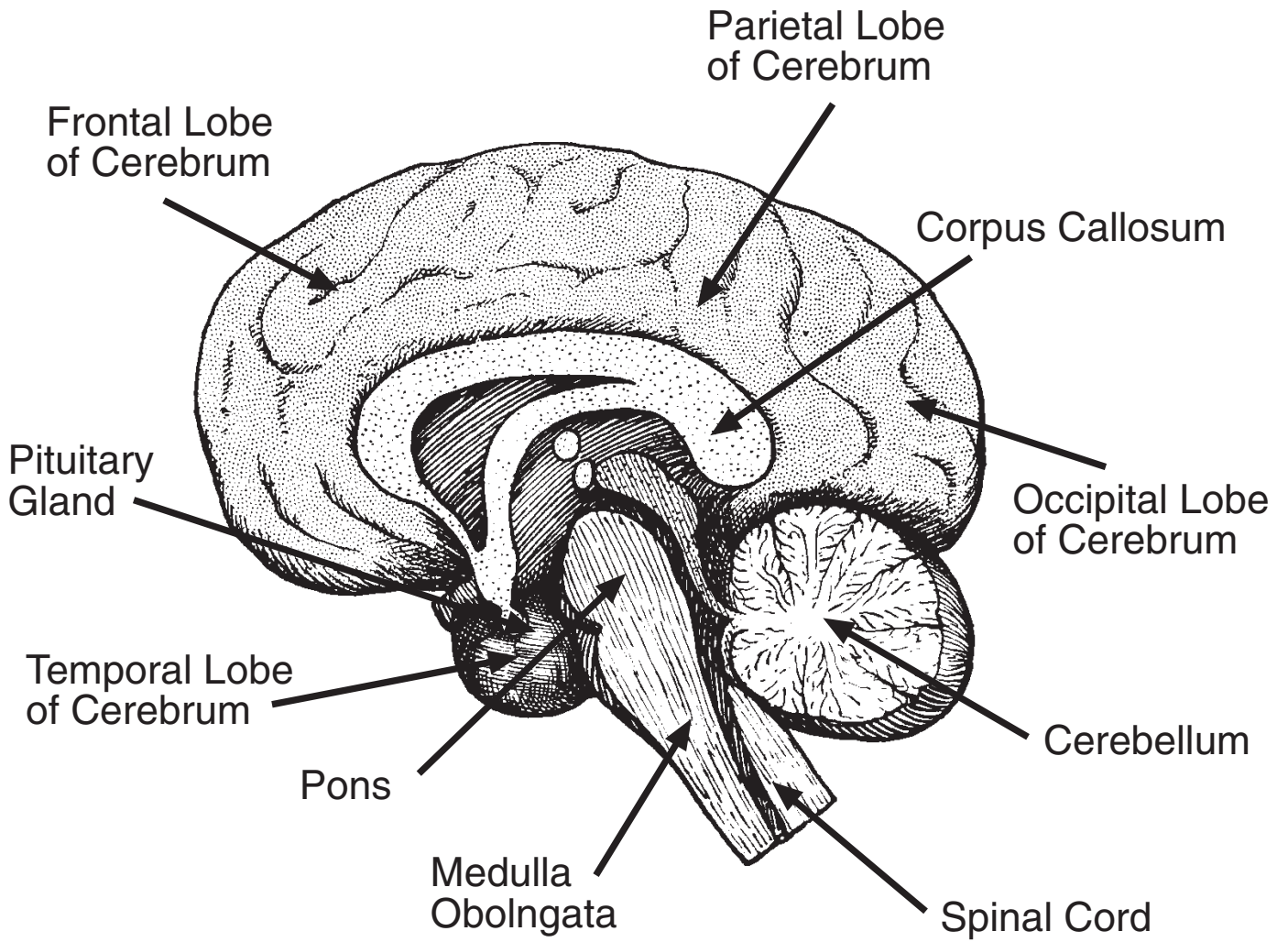
1. Review the key point of the brain mold demonstration: it is essential to always wear a helmet because helmets protect students’ heads and brains.
2. Review why and how often helmets should be replaced.



Toole Design Group



"The Brain" Handout 5.1.1



How do I make sure that my helmet is on correctly?

1. The helmet should be level on your head.
2. The front and back straps should be equally tight and meet at a “V” just below your ear.
3. You should have about 2 fingers of space between your eyebrows and the bottom of your helmet.
4. The chin strap should be tight when you open your mouth. There should be space for one finger between the chin strap and chin when your mouth is closed.
5. A perfectly fit helmet will move the skin on your forehead when moved back and forth.

Note to teacher: The CPSC is the US Consumer Protection Safety Commission (CPSC). The CPSC label for US bicycle helmets “ensures that bicycle helmets provide excellent head protection and that chin straps are strong enough to keep a helmet on the head and in place during a fall or collision.” You may also find a label indicating it meets one of the following voluntary bicycle helmet safety standards: CPSC, ANSI, or Snell. If a helmet doesn’t have one of these labels, don’t buy it.



Helmet Fit Checklist 5.1.3.

*Each student checker fills out this form for the student who is fitting his or her helmet.

Name of Student with Helmet _____

Name of Student Checker _____

Classroom Teacher _____

_____ The helmet is level on your head.

_____ The front and back straps are equally tight and meet at a "V" just below your ear.

_____ You have about 2 fingers of space between your eyebrows and the bottom of your helmet.

_____ The chin strap is tight when you open your mouth. There is space for one finger between the chin strap and chin when your mouth is closed.

_____ The helmet moves the skin on your forehead when moved back and forth.

Helmet Size _____ (write this down so that you know what size to get for the next lesson)





Bicycle Safety Lesson 2 – 5th Grade

Preparing to Ride Safely

Time: 40 minutes

Objectives: To review how to do safety checks before riding and to practice maintaining control of the bicycle while riding in a large group.

Maryland Learner Outcomes:

- Health, Health Behaviors (4-5): Explain the importance of assuming responsibility for personal health behavior.
- Health, Health Behaviors (4-5): Demonstrate ways to avoid and reduce threatening situations.
- Health, Goal Setting & Decision Making (4-5): Apply strategies and skills needed to attain personal health goals.
- Health, Safety and Injury Prevention (4-5): There are ways to eliminate or modify specific hazardous situations.

Montgomery County Physical Education Indicators:

- Identify potential risks associated with physical activities (4-5)

Materials: “YOU Check” Handout 5.2.1 and “ABC Quick Spin check” Handout 5.2.2 (the text for these is provided after the lesson outline). Traffic Mix Activity Diagram 5.2.3. Field Setup Diagram 5.2.4. 2-5 adult volunteers trained on proper bike fit and seat adjustment (training consists of reading the few sentences of the curriculum on these topics, and performing the checks with their student on his/her bike). *Note that the following items will be available in the supply trailer:* Helmet for each student (small, medium, and large sizes are provided). Surgical cap for each student. Properly sized, well maintained bike for each student. Rope, chalk, cones, roll of wide masking tape, or bean bags.

Plan Ahead: Set up the riding lanes with rope, cones, or chalk and make sure the bicycles are out of the trailer before the lesson (refer to Field Setup Diagram 5.2.4). You may also want to bring in 2 bikes, one with no problems, and the other with deflated tires, bad brakes, a rusty chain and loose crank, etc. for demonstrating the ABC Quick Spin check.

Suggested teaching venue: Playground, field, parking lot, community center property, other outdoor space with no traffic, or gym.

Lesson progression:

Introduction
Instruction
Activity
Conclusion



Note to teacher: Here are some statistics about the need for teaching the importance of being visible and riding well-maintained and properly sized bikes.

1. Falling is the main cause of half of all bicycle crashes (*Cross and Fisher, 1977*). Causes of falling include riding a bicycle that is too large.
2. Drivers who claimed that they could not avoid the bicyclist tended to strike children under age 10 and aged 10 to 14 (*Federal Highway Administration, 1996*).

Bike Lesson 2– 5th Grade

Preparing to Ride Safely

Note: Teacher should have bicycle and helmet at the front of the class to demonstrate each of the safety checks. Set up 6 to 8 (8'-10' wide, 100'-200' long) riding lanes using rope, cones, chalk, etc. before class.

Introduction (2 minutes)

Explain: In this lesson we will review the importance of checking yourself, checking if your bicycle fits you, and checking the bicycle itself for safety before you begin to ride. We will also have our first on-bike activity.

Instruction (15 minutes)

YOU Check

1. Review the “YOU Check” by displaying the “YOU Check” Handout 5.2.1.
2. The elements of the “YOU check” are:
 - (a) Wear a properly fitted helmet.
 - (b) Wear brightly colored clothing.
 - (c) Make sure that you do not have loose shoe laces, pant legs, etc.
 - (d) Do not wear headphones or anything else that could block sound or be distracting while bicycling.
 - (e) Don't carry anybody else on your bike.

Bike Fit Check

1. Review the “Bike Fit check” by standing over the frame of your bike. There needs to be room for the student's fist between the top bar of the bike and the student. If there is greater than 3” of clearance, the bike is too small, unless you are riding a BMX or freestyle bicycle.
2. Adjust the bike seat. Fifth graders, because they are more experienced, may be more comfortable with their seat raised to allow only a slight bend in their knee at the bottom of their pedal stroke.

ABC Quick Spin Check

1. Review the “ABC Quick Spin Check” by displaying the “ABC Quick Spin Check” Handout 5.2.2.
2. The elements of the “ABC Quick Spin Check” are:
 - (a) A is for air pressure.
 - (b) B is for brakes.
 - (c) C is for chain and crank.
 - (d) Quick is for giving the rest of the bike a quick look.
 - (e) Spin is for spinning the wheels.
3. Have students perform the “ABC Quick Spin check” on their bikes.

Eye Contact

1. Review the importance of establishing eye contact with drivers.
2. Explain that in addition to wearing bright clothes, it is important to look drivers in the eye (not simply look at the car, but look at the driver) to check if they see you and anticipate what they may do.
3. Stress that drivers may not see you even if you stare at them, but it is important to try.
4. You must establish eye contact at all places where you may cross the path of a car. If you are not sure whether a driver sees you, stop.

Locking Your Bike

1. Introduce the correct procedure for locking a bike to a fixed object.
 - (a) Lock bike to object that cannot be moved (bike rack, sturdy tree, street sign).
 - (b) Lock bike to object that is tall enough that bike cannot be lifted over it (e.g. not a parking meter).
 - (c) Lock bike in a well-lit area.
 - (d) U-lock is best protection against theft. You can remove front wheel (if it is attached with a quick release mechanism), use U-lock to lock front wheel, back wheel (through frame) and fixed object.



2. Discuss advantages of registering bikes with local police department (police will contact you if your bicycle is lost or stolen).

Activity (20 minutes)

Stopping and Making Eye Contact

1. Divide students into groups of 4, corresponding to the number of lanes that are set up ahead of time.
2. Have students ride to the end of the lanes and back, one group at a time. Make sure students stay within their lanes.
3. Designate a stopping point halfway down the lanes with a line or cone. Have a student volunteer stand at this location and hold one of the wooden automobile cut-outs.
4. Have the students ride in the lanes to the stopping point (one group at a time).
5. The students should look left, right, and left again for traffic when they stop.
6. As the students arrive, have the volunteer walk across the lanes while holding the automobile cut-out.
7. As the automobile passes, tell the students on bicycles to make eye contact with the “driver” of the automobile.
8. Have the students proceed riding down the lane when the traffic has cleared.

Traffic Mix (Use Traffic Mix Activity Diagram 5.2.3)

1. Create a large circle by laying the ropes on the ground (or using cones or chalk). The circle should be approximately 100' in diameter.
2. Have one student start riding clockwise around the circle.
3. Add students to the circle, one-by-one, which will force the students concentrate even more on riding with control (there may be a maximum safe number of riders in the circle, depending on its size, so do not exceed a safe number of students in the circle).
4. Have all students brake slowly and come to a safe stop after all students (or the maximum safe number of students) have joined the circle and have ridden around the circle 3 times.

Note: This is a good time for teachers to assess the riding ability of the students.

Optional Activity (Refer to the 4th Grade lessons for additional activity ideas)

Crazy Eight

1. Set up a figure eight using cones or rope. The total length of the figure eight should be about 40 feet and the total width should be about 20 feet. The width of the riding lanes should be 3 to 4 feet.
2. Tell students that this activity will help them practice being safe when traffic crosses their path.
3. Have between 4 and 10 students ride the figure eight in the same direction for 3 to 4 cycles.
4. Make sure that the students approach the intersection (center of the 8) carefully and yield to other bicyclists who arrive before them.
5. If two bicyclists arrive at the intersection at the same time, the person on the right always has the right of way.
6. For a variation on this activity, you may choose to place stop signs at each approach to the intersection.

Conclusion (5 minutes)

1. Review importance of “YOU check” (wearing a properly fitted helmet, bright clothes, no dangling pant legs or shoelaces, no earphones).
2. Review importance of riding a properly sized bike (being able to straddle the top bar and sit comfortably makes the bicycle easier to handle and more fun to ride).
3. Review importance of “ABC Quick Spin check” (avoiding mechanical problems that could be unsafe).
4. Review importance of establishing eye contact.
5. Review proper way to lock a bike.



“YOU Check”

1. Wear a properly fitted helmet.
2. Wear brightly colored clothing.
3. Make sure that you do not have any dangling shoe laces, pant legs, etc.
4. Do not wear headphones or anything else that could block sound or be distracting while bicycling.
5. Don't carry anybody else on your bike.



“ABC Quick Spin Check”

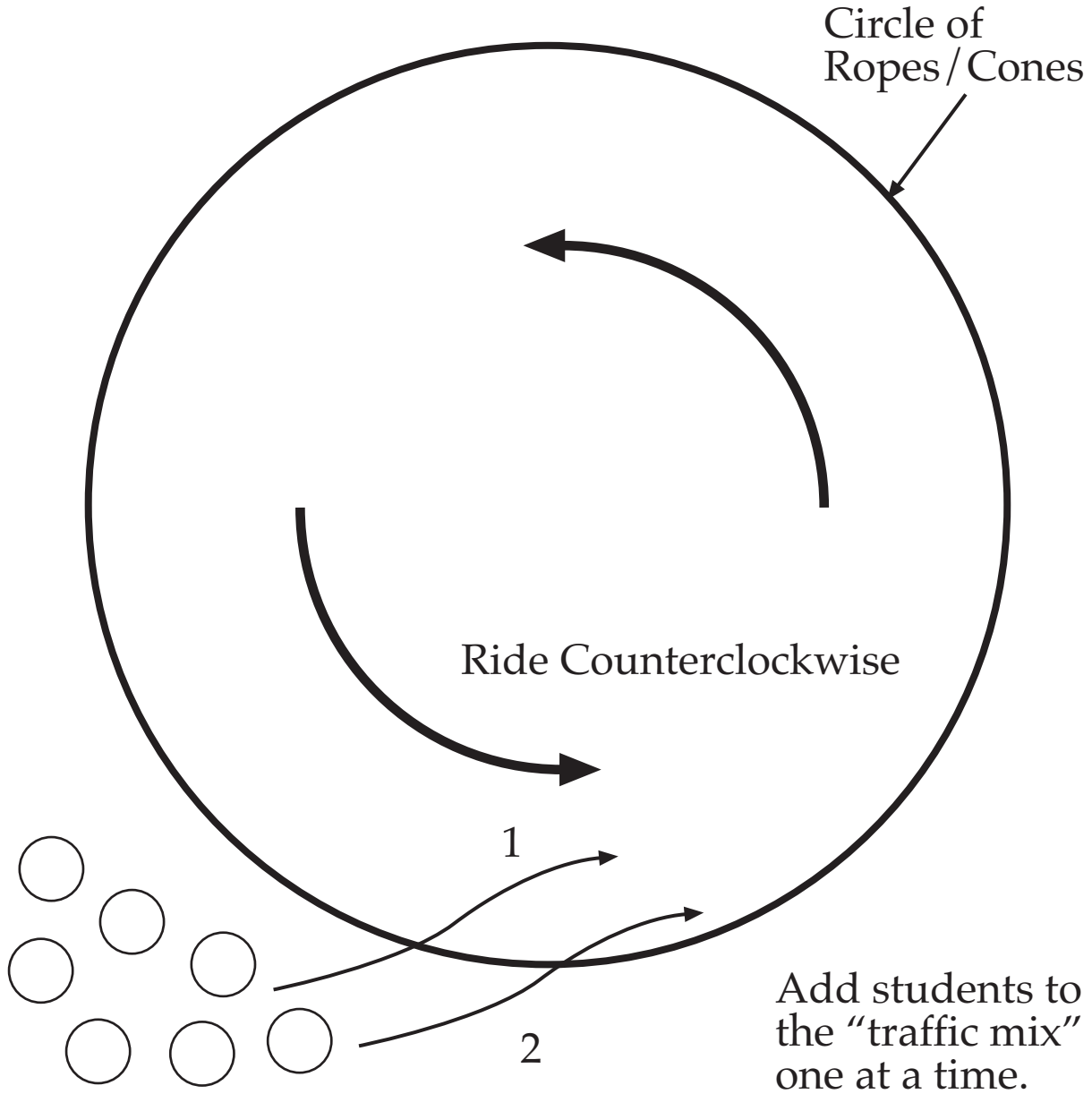
1. **A is for air pressure.** Squeeze the sides of the tires to make sure that they are firm. It is a good idea to ask a parent to help squeeze the tire until you get stronger.
2. **B is for brakes.** Stand over your bike and squeeze the brakes. The tires should not rotate when you to push the bike forward and pull it back.
3. **C is for chain and crank.** Check to make sure the chain is not too loose or rusty. Have students grab the crank arms (the pieces to which the pedals are attached) and try to wiggle them. They should not move.
4. **Quick is for giving the rest of the bike a quick look.** Check for tight quick release levers (if they are on the bike)—if they don’t move easily, they are fine. Look for a tight chain (little to no drooping), tight seat and handlebars, tight and clean reflectors.
5. **Spin is for spinning the wheels.** Make sure they spin smoothly, don’t wobble, and have no broken, missing, or loose spokes.



Traffic Mix Activity Diagram 5.2.3.

Traffic Mix

About 100'





Bicycle Safety Lesson 3 - 5th Grade

Learning About Traffic Laws and Hazards

Time: 35 minutes

Objective: To review the rules of the road and basic traffic laws that bicyclists need to follow. To discuss some of the more dangerous situations that bicyclists can face on the road.

Maryland Learner Outcomes:

- Health, Health Behaviors (4-5): Demonstrate ways to avoid and reduce threatening situations.
- Health, Health Behaviors (4-5): Explain the importance of assuming responsibility for personal health behaviors.
- Writing, Write to Inform (4-5): Connect relevant descriptions, including sensory details, personal experiences, observations, and/or research-based information, linking paragraphs and ideas in ways that make a topic or message clear to the reader

Montgomery County Physical Education Indicators:

- Choose to exercise at home for personal enjoyment and benefit (4-5)
- Identify potential risks associated with physical activities (4-5)
- Identify and be responsible for maintaining a healthy and physically fit lifestyle (4-5)

Materials: Sign Handouts 5.3.1. and Bicycle Rules of the Road Handout 5.3.2.

Note that the following items may also be available in the supply trailer: Mock stop sign, stop light, yield sign, pedestrians in crosswalk sign, and railroad crossing sign.

Suggested Teaching Venue: This can be done as a classroom activity or as an indoor lesson on a rainy day, or it can be combined with an outdoor lesson, if time is available.

Plan Ahead: You may want to invite a police officer, fire fighter, or other community leader to talk about safety and traffic laws as a part of this lesson. Make copies of Sign Handouts 5.3.1. and Bicycle Rules of the Road Handout 5.3.2. *Optional:* Find and copy or create your own map of the neighborhood around the school to give to the students for the mapping a safe route to school exercise.

Lesson Progression:

Introduction
Instruction
Activity
Conclusion



Note to teacher: Here are some statistics about the need to learn these basic bicycling skills.

1. Children aged 10 to 14 are involved in more than their share of crashes with the following bicycle maneuvers: “right turn”, “left turn”, “entering the roadway”, “traveling the wrong way”, “crossing mid-block”, and “swerving left or right”. (*Federal Highway Administration, 1996*)

2. Bicyclists aged 10 to 14 have more than their share of the following contributing crash factors: “yield violation”, “stop sign violation”, “traffic signal violation”, “exceeding safe speed”, “improper lane change/use”, “improper turn”, “safe movement violation”, “inattention”, “reckless or stunt riding”, “swerved left”, “came off sidewalk at intersection”, “improper passengers”, and “didn’t see vehicle”. (*Federal Highway Administration, 1996*)

3. Children aged 10 to 14 are involved in approximately 27% of all bicycle crashes. Yet, this age group accounts for over 45% of “bicyclist left turn in front of traffic”, 41% of “bicyclist turn/merge into path of motorist”, 38% of “bicycle right turn”, and 37% of “bicyclist failed to yield, intersection” crash types. (*Federal Highway Administration, 1996, 1997*)

Bicycle Safety Lesson 3 - 5th Grade

Learning About Traffic Laws and Hazards

Introduction (1 minute)

Explain: “Your bicycle is a vehicle.” Remind students this means they need to be aware of AND FOLLOW all traffic laws. Even when following all traffic laws, there are several situations students will face that can be particularly dangerous, unless they understand what they are and how to avoid them or minimize their harmful potential.

Instruction (10 minutes)

Show the cut-out signs from the program trailer or use the Sign Handouts 5.3.1 to show what each type of sign looks like.

Ask the students the following questions:

1. What is the meaning of the yield sign? (Slow down, look for traffic. Stop if a car is coming; keep going if no car is approaching.)
2. What is the meaning of the pedestrian crosswalk sign? (Watch out for people walking in front of you.)
3. What is the meaning of the railroad crossing sign? (Watch for trains and be careful not to slip on the tracks.)
4. How should bicyclists cross railroad tracks? (Walk your bike across or ride across at a 90 degree angle if possible without veering into traffic lane.)

5. What is the proper way to stop and then go at stop signs and stop lights? (Look left, front, right, left again; pull out to see around any obstructions; leave seat to do so.)
6. Why is it important to look left twice? (Because a car coming from the left can hit you sooner than a car on your right.)
7. What is the proper way to enter the road from a driveway? (Look left, front, right, left again; pull out to see around any obstruction; leave seat to do so.)
8. Ask them again why it’s important to look left twice. (Because a car coming from the left can hit you sooner than a car on your right.)
9. Why is it important to ride single-file? (Children need to avoid riding in the traffic lane.)

Bicycle Rules of the Road

1. *Ask students:* Should bicyclists ride with or against traffic? (Ride with traffic; riding against traffic is the #1 cause of bicycle-car collisions.)
2. *Ask:* Why should bicyclists ride with traffic? (Drivers don’t expect to see vehicles in this direction. So, bicyclists riding the wrong way tend to be invisible to drivers. Wrong-way riding is especially dangerous at intersections.)
3. Tell students about the 3 foot rule. (Make sure to ride on the right side of the road about 3 feet away from parked cars and curbs.)
4. Pass out Bicycle Rules of the Road Handout 5.3.2, and go over the rules of the road.



Activity (20 minutes)

1. Ask the students to picture themselves riding their bikes in their neighborhoods.
2. Then ask the following questions:
 - (a) When have they fallen off their bikes?
 - (b) When have they bumped into other children either riding their bikes or walking?
 - (c) When have they been hit or almost hit by a car?
3. List the most dangerous situations on the board. (Make sure that the examples include: conflicts with vehicles at intersections, crossing busy streets, trying to make a left turn, having drivers open car doors without looking, crossing railroad tracks, riding near playgrounds, children running into the street or jaywalking, riding across crosswalks while people are trying to cross, riding in parking lots with cars going in many directions, avoiding potholes and road debris, going too fast down hills, riding on wet roads, etc.).

Mapping a Safe Route To School Exercise

Note: It may be helpful to provide students with a simple base map of the neighborhood around the school for the following lesson.

1. *Instruct the students:* Considering all the traffic laws and all the most dangerous situations for a bicyclist, map out a safe route from your house to school, a friend's house, a store, etc.
2. Finish this assignment at home.
3. Write a short paper describing what you considered in creating this route. Then, describe the route.
4. If possible, ride the route with your parents before the next class.
5. Ask students to describe the hazardous situations that came up that they did not anticipate. Ask them what they did to minimize these hazards.

Conclusion (2 minutes)

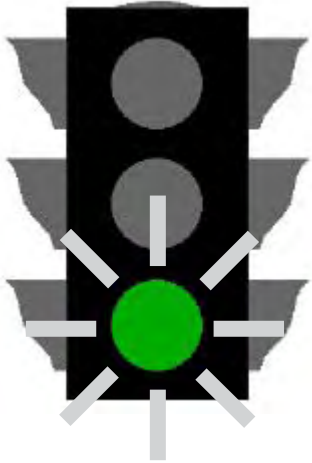
1. Remind the students that their bikes are vehicles. This means they need to understand and obey all traffic laws.
2. Remind students that there are several common situations that can create hazards for bicyclists. Ask the students to quickly mention several (wet roads, cracks, debris, visual barriers, etc.).
3. Remind students that motor vehicle drivers may not always follow the rules, and may not always see bike riders, so be especially careful at intersections and around driveways and parked cars.



Toole Design Group



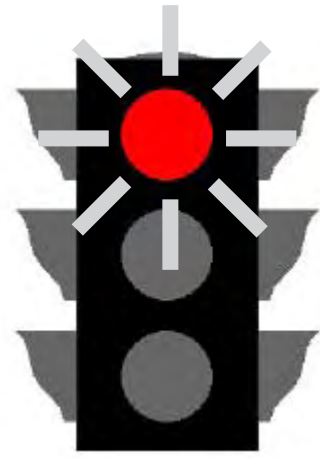
Sign Handouts 5.3.1



Traffic Signal - GO



Traffic Signal - CAUTION



Traffic Signal - STOP



Stop Sign



Yield Sign



Crosswalk Sign



Traffic Signal
Warning Sign



Railroad Crossing Sign



Maryland Bicycle Rules of the Road

- 1) Wear a bicycle helmet (required for children *under* 16 years old).
- 2) Obey all traffic signs and signals.
- 3) Ride in the same direction as motor vehicles, as near to the right side of the road as possible.
- 4) Use hand signals to alert other drivers of lane changes and turns.
- 5) Yield to pedestrians.
- 6) Stop for school buses when they are loading or unloading children.
- 7) Do not wear headphones that cover both ears.
- 8) If it is dark outside, your bicycle must have a front light.
- 9) Your bicycle must have working brakes.





Bicycle Safety Lesson 4 - 5th Grade

Bike Skills I

Time: 45 minutes

Objectives: Teach the students a set of basic bike skills necessary for safe bike riding. In this lesson, the students will review getting on and off the bike, stopping, exercising control while riding, scanning and signaling, and making right and left turns.

Maryland Learner Outcomes:

- Health, Health Behaviors (4-5): Demonstrate ways to avoid and reduce threatening situations.
- Health, Health Behaviors (4-5): Demonstrate skills and strategies to improve or maintain personal health.
- Health, Safety and Injury Prevention (4-5): There are hazardous and non-hazardous situations in a variety of environments.
- Health, Safety and Injury Prevention (4-5): There are ways to eliminate or modify specific hazardous situations.
- Health, Nutrition and Fitness (4-5): Physical activity helps develop balance, coordination, rhythm, flexibility, strength, and cardio-respiratory endurance.

Montgomery County Physical Education Indicators:

- Through feedback (e.g., peer, teacher, video) analyze and correct errors in personal movement patterns (4-5)
- Identify potential risks associated with physical activities (4-5)
- Express positive aspects of another's performance (4-5)

Materials:

Rock Dodge Activity Setup Diagram 5.4.1. *Note that the following items will be available in the supply trailer:* Helmet for each student (small, medium, and large sizes are provided). Surgical cap for each student. Properly sized, well maintained bike for each student. Rope, chalk, cones, roll of wide masking tape, or bean bags.

Suggested Teaching Venue:

Playground, field, parking lot, community center property, other outdoor space with no traffic, or gym.

Plan Ahead: Set up stations for the riding lanes and narrow lanes (for steering activity) with rope, cones, or chalk, set up the cones (for slalom activity), model residential lane (for turning activity), and make sure that all bicycles are out of the trailer before the lesson.

Lesson Progression:

Introduction
Instruction and Activity
Conclusion



Note to teacher: Here are some statistics about the need to learn these basic bicycling skills.

1. "Cycling skill is the single greatest contributing factor in bicycle crashes. Young children and teenagers are more often the cause of their own car-bike collisions, whereas motorist error is often the cause of car-bike collisions involving adult cyclists." (*Citizens for Safe Cycling, 2001*)
2. Over 75% of bicycle crashes are intersection-related and over 50% of crashes where the vehicle overtook the cyclist were the result of the cyclist swerving unexpectedly into the motorist's path. (Thom, 1990)
3. Bicyclists aged 10 to 14 are involved in more than their share of bicycle crashes in sidewalks, pedestrian crosswalks, alleys and driveways, and parking lots and at locations with stop signs. (*Federal Highway Administration, 1996*)

Bicycle Safety Lesson 4 - 5th Grade

Bike Skills I

Note: For each activity, the teacher should divide the students into groups of 4. The students will participate in the activities in groups.

Introduction (3 minutes)

Explain: Today we will be reviewing getting on and off the bike, stopping, steering, and scanning for traffic and learning about turning, and signaling.

1. After the students take their helmets from the trailer, have them perform the "YOU check", Bike Fit check, and "ABC Quick Spin check".
2. Explain to the students the importance of learning basic bike skills (will help keep them safe when they ride to school, in their neighborhood, to a friend's house, etc.)

Instruction and Activity (30 minutes)

1. Briefly review getting on and off the bike, stopping, steering in a straight line, slalom, and scanning and signaling by demonstrating each.
2. Have the students do all of the activities below in sequence at a series of stations, if room is available. Assign one area to getting on bikes, another to stopping, a third to steering a straight line, and the fourth to the slalom. Have the students go from one to the next in an oval, with you in the middle observing and commenting.

Station 1: Stopping

1. Set up 3 to 6 lanes (4'-5' wide, 100'-200' long) using the ropes, chalk, or cones in the trailer.

2. Put two lines of tape about halfway down the lanes. The first line of tape or cones will be followed by a second line ten feet further down the lanes.
3. The students will ride in their lanes, approach the first line, apply their brakes when they pass this line, and correctly stop and dismount before they reach the second line.
4. Each student will then look left, right, and left again before moving.

Station 2: Steering a Straight Line

1. Set up the rope, tape, chalk lines, or cones so that there are two 8-10" wide lanes, separated by about 10 feet.
2. Group the students in pairs and have them practice riding within the narrow lanes.
3. Stress the importance of being able to ride in a straight line, without weaving, when out in traffic.

Station 3: Slalom

1. Place 10 bean bags or cones in a straight line, approximately 10' apart. You may wish to make several lines of bean bags or cones so that more than one student can ride at one time.
2. The students should ride to the right of the first, the left of the second, and so on.

Station 4: Scanning and Signaling

1. Mark two lines with tape across all the lanes about halfway down to represent a cross street (the cross-street can also be marked by cones).
2. Have the riders scanning to the right, left, and behind while they ride down the lanes.



- When they near the intersection, they should stop completely, scan left, front, right, and left again, and then proceed through.
- At the end of the lanes, the riders should look left, forward, right, and left again and signal a left turn (left arm extended to the side, index finger pointing to the left).

Stop the students after 10 to 15 minutes and have them gather at a station with 4'-5' lanes.

Set up several rock dodge activity stations (Rock Dodge Activity Diagram 5.4.1) before the lesson.

Rock Dodge

- Tell the students that you are about to help them avoid road debris without swerving into traffic by having them practice the rock dodge.
- Arrange bean bags, sponges, or cones in the configuration shown in Rock Dodge Activity Diagram 5.4.1. Allow 6" between the two pairs, set 3' from the center ball.
- Explain the importance of avoiding hazards such as debris and potholes, while maintaining control of the bike and continuing to ride in a straight line. (Avoiding debris will help prevent you from losing your balance and falling. It will also help prevent flat tires and other damage to your bike.)
- Demonstrate this skill (or have a student demonstrate) by riding between the first set of sponges, turning right or left to avoid the center ball, then riding between the second set of sponges. (Allow the rear tire to strike the center ball.)
- Have the children do this several times (being sure to replace the balls when they are hit).
- Then, have them repeat the exercise, trying to miss the center ball with both tires.

Note: Most children will eventually get this simply by trial and error. For those having difficulty, pull each aside separately. Have him or her concentrate on going to the right or left of the center ball, head straight for the right or left rear ball, then quickly turning between the two rear balls at the last moment.

Optional Activity (refer to the 4th Grade lessons for additional activity ideas.)

Bicycle Race

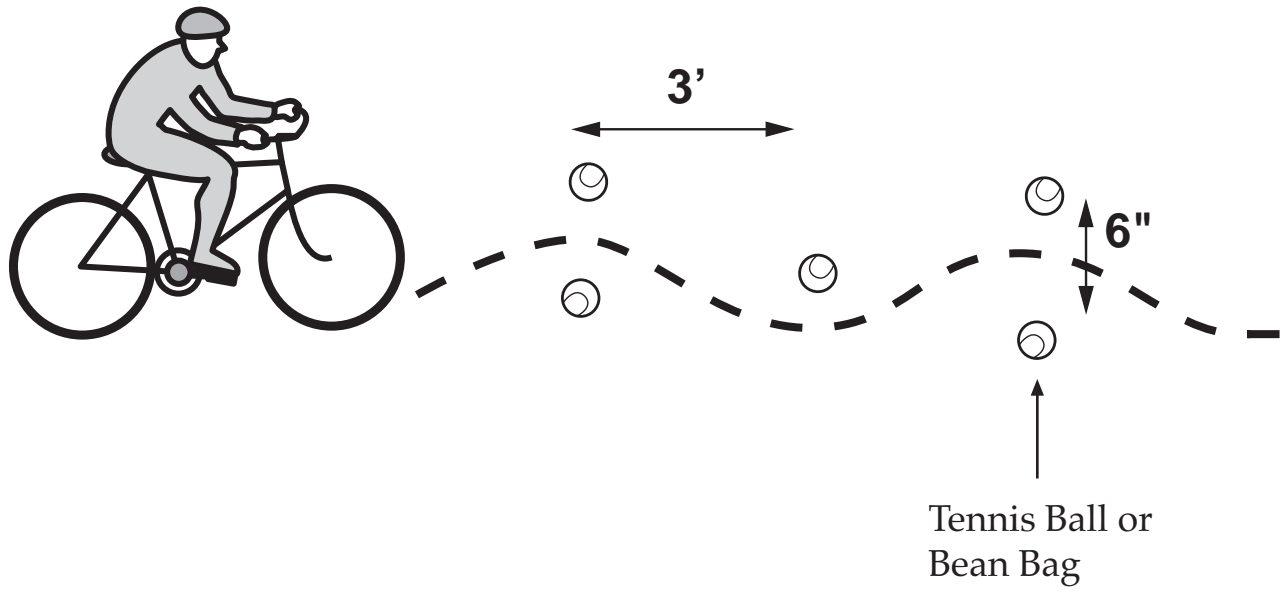
- Set up lanes (200 to 600 feet long) for the students to ride in. Several students can share the same lane.
- At your signal, have students race their bikes straight to the finish line on the other end of the lanes.
- Instruct the students to keep looking to their right, left, ahead, and scanning behind as they ride to make sure that they have enough space to ride and can avoid unexpected hazards. **This is important for all bicyclists to do, even if they are trying to ride fast.**
- Racers will be disqualified if they do not stay in their lane, bump into another rider, or cut in front of another rider.
- There are several variations on the race:
 - You may choose to add a stop sign halfway down the lanes. In this case, students must come to a complete, safe stop and look to their left, right and left again before proceeding to finish the race. If they do not behave safely at the stop sign, they are disqualified.
 - You may choose to make lanes that turn right between the start and the finish. In this case, students must safely scan ahead and behind over their left shoulder to signal a left turn and a right turn as they race. It is critical that they slow down to signal—they should only ride fast in areas away from the turns. If they do not behave safely, they are disqualified.

Conclusion (12 minutes)

- Remind the students to do the **YOU check**, the **bike fit check**, and the **ABC Quick Spin Check** before riding.
- Tell the students to practice the rock dodge in a safe place like a playground until they have mastered this. They can practice going around stones, tree branches, and even paint spots.



Rock Dodge Activity Setup Diagram 5.4.1





Bicycle Safety Lesson 5 - 5th Grade

Bicycling Near Home and Around the World

Time: 30 minutes

Objectives: To understand that bicycling promotes personal and environmental health and that bicycling represents a sound economic decision.

Maryland Learner Outcomes:

- Health, Health Behaviors (4-5): Explain the importance of assuming responsibility for personal health behaviors
- Social Studies, Economics (4-5): Explain how limited resources and unlimited economic wants cause people to choose certain goods and services and give up others
- Mathematics, Processes of Mathematics (PreK-8): Identify mathematical concepts and processes as they apply to other content areas

Montgomery County Physical Education Indicators:

- Identify opportunities in the school and community for regular participation in physical activity (4-5)
- Identify healthy benefits of various games, sports, dance and outdoor pursuits, based on lifetime fitness (4-5)
- Identify and be responsible for maintaining a healthy and physically fit lifestyle (4-5)

Materials: Pictures of Bicyclists 5.5.1.; Calculations Overhead 5.5.2.; calculators for students.

Plan Ahead: Set up TV, VCR, and cue video before class. Make copies of Pictures of Bicyclists 5.5.1. Make an overhead from Calculations Overhead 5.5.2. to show if there is not enough time for students to finish their calculations.

Suggested teaching venue: Home classroom during general health or social studies unit. General math unit is another possible venue. However, it could be taught by in a local club, by a public service group, or any other community venue.

Lesson progression:

Introduction
Instruction
Activity
Conclusion

Note to teacher: Here are some data about bicycling throughout the world, the need to teach bike safety, and the need to explore increased bicycle use as a means to improve fitness and reduce air pollution.

1. Each year over 500,000 people receive emergency room treatment for bike-related injuries, and more than half of these are children under age 14. (*Florida Traffic and Bicycle Safety Program, 1998*)
2. 25% of U.S. children between ages 6 and 18 are either overweight or obese, compared to 16% of Russian children and 7% of Chinese children. (*University of North Carolina News Service, 2001*)
3. "Less than one-third of Americans meet the federal recommendations to engage in at least 30 minutes of moderate physical activity at least five days a week." (*Department of Health and Human Services, 2000*)



4. "If the environment does not provide safe opportunities for physical activities such as walking and bicycling, adults and children likely will spend more time engaging in sedentary activities indoors." (Department of Health&Human Services, 2000)

5. Our children have become "mobility dependent." Almost 75 percent of all trips made by 5-9 year olds, and 65 percent of all trips by 10-15 year olds are made as passengers in private vehicles. About half of America's school children ages 5-15 go to school in this fashion, while another third take the school bus. Only 10 percent walk to school, and less than 2 percent ride a bike. (Nationwide Personal Transportation Survey, 1995)

Bicycle Safety Lesson 5 - 5th Grade

Bicycling Near Home and Around the World

If doing the optional activity, teacher should have overhead or PowerPoint projector set up in classroom and video cued so that it can be started quickly. An alternative is to use pictures of people bicycling in other countries.

Introduction (5 minutes)

Explain: Learning to bicycle safely will help you stay healthy and allow you to visit fun places. Today we will be learning about many different types of bicyclists. We will also examine some of the costs of bicycling versus driving a car. (Optional) Show PowerPoint slides of "Bicyclists from Around the World."

Instruction (10 minutes)

1. Make copies and pass out the Pictures of Bicyclists 5.5.1.
2. Talk about the many different types of people who bicycle.

Quickly review the following questions from the 3rd and 4th Grade lessons.

1. Why do you (or your friends) ride bikes?
2. Why do you suppose adults and children around the world ride bikes? (For fun; exercise and health; convenience – faster than walking; lack of other options – too young to drive a car; environmental health – lack of emissions, no consumption of limited resources; less stressful than driving; cost – cheaper than driving a car.)

3. Why don't more adults and kids bike everyday in the U.S.? (Friends and stores are too far; streets too dangerous; biking takes too long; bikes are less convenient; adults have busy schedules, lack of public transportation, biking is for children.)
4. What do you think of these reasons? Are they more important than personal health and environmental health?
5. Why should you learn about bike safety? (To help prevent injuries, knowledge of traffic laws and hazards will be helpful when students learn how to drive a car, help students help their parents drive more safely—especially around bicyclists.)

Activity (15 minutes)

Ask the following questions about the economic cost of riding a bicycle versus driving a car.

1. If more people in this country used their bikes more often, and their cars less often, how much money would they save?
2. Assign students to work in teams of 4. Have students calculate the cost of driving a car, per mile. They will consider the average cost of car (\$15,000), cost of insurance (\$1500 per year for the 10 year life of the car), the average number of miles driven over life of car (100,000), cost of gas (\$1.25 per gallon, assume 30 miles per gallon, calculate number of gallons over life of car), cost of routine maintenance (assume twice a year oil change at \$30 each, once a year tune-up or inspection at \$100, for each of 10 year lifespan of car), replacement of tires (one new set at \$75 per tire).
3. Give them some time to do this calculation or assign it as homework. If you would like to show the calculations, use Calculations Overhead 5.5.2.



4. After they calculate this cost, talk about some of the costs they did not consider: major car repairs, building and maintenance of roads, cost of parking spaces, cost of garages.
5. Have students compare the cost of buying and maintaining a bicycle. These costs include the bike (\$500), basic equipment (pump, spare tube, seat pack, water bottles and cages — \$100), annual maintenance (\$50 over 10 year life of bike – this is a stretch for kids, but true for adults), replacement tires (one per year @ \$30), occasional upgrades (new seat, pedals, wheels—approximately \$300 every 5 years). Assume 2000 miles of bike riding per year (a lot for a kid, a modest amount for adults commuting to work and running the occasional errand), over 10 year life of bike.

6. Talk about costs they did not consider: primarily, major repairs; growing too fast to keep a bike for 10 years. Calculate cost of biking per mile (\$.20). Compare with driving a car per mile (\$.36).

5th Grade optional exercise: Have students visit a car dealer and a bike shop to gather this information, then share with the class.

Conclusion (2 minutes)

Go over these main concepts.

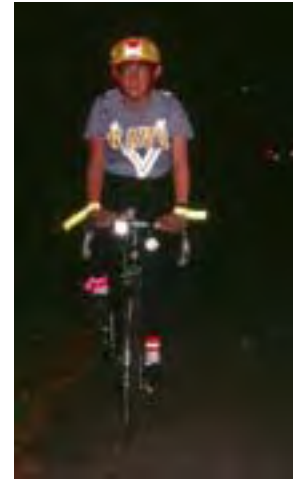
1. Bike riding is fun, good exercise, good for the environment, and inexpensive.
2. Learning how to bike safely is important.



City of Rockville



Pictures of Bicyclists 5.5.1



www.pedbikeimages.org/DanBurden





www.pedbikeimages.org/DanBurden



Calculations Overhead 5.5.2

The cost of buying and driving a car, per mile:

Average cost of car = \$15,000

Cost of insurance = \$1500 per year

Life of car = 10 years

Average number of miles driven over life of a car = 100,000

Cost of gas = \$1.25 per gallon

Fuel efficiency = 30 miles per gallon

Cost of routine maintenance =

\$30 oil change 2 times per year; \$100 tune-up or inspection 1 time per year

Cost to replace tires = Set of 4 at \$75 per tire

Cost per mile (\$) =

$$[(15,000) + (10 \times 1,500) + (100,000 / 30 \times 1.25) + (2 \times 10 \times 30 + 10 \times 100) + (4 \times 75)] / 100,000$$

$$\text{Cost per mile (\$)} = [(15,000) + (15,000) + (4,166.67) + (600 + 1000) + (300)] / 100,000$$

$$\text{Cost per mile (\$)} = [36,066.67] / 100,000$$

$$\text{Cost per mile (\$)} = 0.36$$

The cost of buying and maintaining a bicycle, per mile:

Average cost of bike = \$500

Basic bike equipment (pump, spare tube, seat pack, water bottles, and cages) = \$100

Life of bicycle = 10 years

Cost of routine maintenance = \$50 per year

Replacement tires = \$30 for one set per year

Occasional upgrades (new seat, pedals, wheels) = \$300 every 5 years

Average miles ridden per year = 1000

$$\text{Cost per mile (\$)} = [(500) + (100) + (10 \times 50) + (10 \times 30) + (10 / 5 \times 300)] / [1000 \times 10]$$

$$\text{Cost per mile (\$)} = [(500) + (100) + (500) + (300) + (600)] / [10,000]$$

$$\text{Cost per mile (\$)} = [2000] / [10,000]$$

$$\text{Cost per mile (\$)} = 0.20$$





Bicycle Safety Lesson 6 - 5th Grade

Bicycle Field Trip

Time: 50 minutes

Objectives: Demonstrate the ability to safely and legally ride a bike in a real-life situation.

Maryland Learner Outcomes:

- Health, Health Behaviors (K-3): Demonstrate skills to improve or maintain personal health.

Montgomery County Physical Education Indicators:

- Through feedback (e.g., peer, teacher, video) analyze and correct errors in personal movement patterns (4-5)
- Identify potential risks associated with physical activities (4-5)
- Identify and be responsible for maintaining a healthy and physically fit lifestyle (4-5)

Materials: Each student should use a properly fitted helmet and a properly sized, well maintained bike from the program trailer. We suggest having at least one trained teacher for every 10 children, plus an additional adult volunteer for each 10 children.

Community Support: Identify at least one adult volunteer familiar with bicycling. The local office of the state patrol, county sheriff's office, or local police department may also be able to help with the field trip. Another option is to seek help from the local park and recreation department, or call the League of American Bicyclists (1-202-822-1333) for the name of a local League Certified Instructor.

Plan Ahead: The neighborhood ride can be done during the school day or on a weekend (more community volunteers may be able to help on a weekend). Choose a route on local streets with minimal traffic. The route can be one to four miles long, beginning and ending at the school (As an option, children could be bussed to an area more suitable for a neighborhood ride). Identify places on the route where children can be observed maintaining a straight line even when scanning, riding single file, stopping and starting correctly, turning right and left correctly, maneuvering around a hazard (tree limb, rock, railroad tracks), exercising proper caution at intersections, obeying all traffic signs and signals, correctly entering a roadway from a driveway or alley, and riding on the right side of the road about 3 feet from the curb and parked cars.

Suggested Teaching Venue: Local city streets. This lesson can be taught as part of the physical education curriculum. It can also be offered by the local park and recreation department, the local police department, or by an instructor certified by the League of American Bicyclists.

Lesson Progression:

Introduction
Activity
Conclusion



Note to teacher: Here are some statistics about the need to learn these basic bicycling skills.

1. "Cycling skill is the single greatest contributing factor in bicycle crashes. Young children and teenagers are more often the cause of their own car-bike collisions, whereas motorist error is often the cause of car-bike collisions involving adult cyclists" (*Citizens for Safe Cycling 2001*)
2. Over 75% of bicycle crashes are intersection-related and over 50% of crashes where the vehicle overtook the cyclist were the result of the cyclist swerving unexpectedly into the motorist's path. (*Thom 1990*)
3. Bicyclists aged 10 to 14 have more than their share of bicycle crashes in sidewalks, pedestrian crosswalks, alleys and driveways, parking lots and locations with stop signs. (*Federal Highway Administration 1996*)



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Bicycle Safety Lesson 6 - 5th Grade

Bicycle Field Trip

Take the students to the starting point of the neighborhood ride course. It will be helpful to have parent volunteers for this activity.

Introduction (3 minutes)

1. Explain again to the students the importance of learning basic bike skills.
2. Explain that they will be practicing the following skills on the ride:
 - (a) maintaining a straight line even when scanning
 - (b) riding single file, stopping and starting correctly
 - (c) turning right and left correctly, maneuvering around a hazard (tree limb, rock, railroad tracks)
 - (d) exercising proper caution at intersections
 - (e) obeying all traffic signs and signals
 - (f) correctly entering a roadway from a driveway or alley
 - (g) riding on the right side of the road about three feet from curbs and parked cars.
3. Prior to beginning the road test, have children perform YOU check, bike fit check, and ABC quick spin check.

Activity (40 minutes)

1. Have the students ride in groups of 10 or less and have at least one teacher and/or one parent-volunteer with each group.
2. Lay out the route on lightly-traveled roads well beforehand. Do not have students demonstrate left turns on roads with more than one lane in each direction. Riding in these conditions is fine for an accomplished rider, but should not be done by children.
3. The route should include opportunities for the children to conduct a left turn, a right turn, stop at an intersection, proceed cautiously through an intersection, exit a driveway onto a roadway, and avoid a hazard. (You may want to place a tree limb or rock on the route ahead of time and warn the students of its approximate location.)
4. While riding, the volunteer can ride in single file, after the first three children. The teacher can ride at the end of the line.

Optional Activity: Skills Test

1. Test students on the skills that they have learned. To do this, set up designated locations for the students to demonstrate specific skills. At each designated stop, the students can be instructed to line up in single file, waiting for the teacher to come up. The teacher can then observe the students' performance of the previous skill, then explain the next skill to be tested.
2. Repeat the process for each skill.
3. Students pass the test if they have not committed a flagrant safety violation (not stopping at a stop sign, not scanning before turning, etc.)

Conclusion (7 minutes)

1. Review the fun things that occurred on the ride.
2. Have students raise their hands to say what they liked most about the ride.
3. Review the children's performance on the ride, congratulate them on good skills and safe behaviors.
4. Remind them of any problems you observed.
5. Remind them; again, to NEVER ASSUME other drivers see them or that other drivers will act in a safe manner.



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