

Walk/Bike Nashville and the  
Nashville Area MPO  
June 1, 2009  
Nolensville Elementary

**LESSON ONE**  
**Introduction to Bicycling and Walking (60 minutes)**

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**PURPOSE**

*Introduce the bicycling and walking unit and introduce safe bicycling practices.*

**STANDARDS<sup>1</sup>**

Tennessee Health Education Standards: Grades 3-5

Standard 1: Decision Making/Personal Health and Wellness

Standard 14: Environmental and Community Health Knowledge

Tennessee Physical Education Standards: Grades 3-5

Standard 5: Personal and Social Responsibility

Standard 6: Values Physical Education

**MATERIALS NEEDED**

- ✓ Pre-Tests
- ✓ Transportation Investigation Chart
- ✓ Student Journals or Paper
- ✓ Big Paper/Markers for Brainstorming

**LESSON OUTLINE/SEQUENCE**

1. Introduce Safe Routes/Walking and Bicycling (10 minutes)
  - We are beginning a unit on walking and bicycling and our hope is to encourage more of you to walk and bike on a regular basis.
  - This class is called “Walk/Bike Education” and over the next weeks we will teach you how to incorporate these skills into your life.
  - We will be doing in-class as well as on bike activities as a part of our unit.
2. Transportation Investigation (5 minutes)
  - How many of you walked or biked to school today? Have students record information on their individual charts, or create a large chart to display in classroom that you can track with students.
  - How many of you ever have walked or biked to school? Record information on chart.
  - Explain to students that the hope is to have more walking and biking over the coming weeks and that they will track walking and biking each day on the transportation investigation chart.
3. Explain and Administer Pre-Test (25 minutes)
  - Distribute tests and explain that these are only used to see what students already know about walking and bicycling. Explain that we will use the same tests at the end of the course to see how much we have learned.
  - Circulate during test administration, reinforcing the idea that it is okay not to know some of the answers.

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<sup>1</sup> <http://www.tennessee.gov/education/curriculum.shtml>

- Collect pre-tests.

#### **LESSON OUTLINE/SEQUENCE (cont.)**

#### 4. Class Discussion/Small Group Activity: Why Walk or Bike? (20 minutes)

- This activity can either be conducted as a teacher-led class discussion or as a small group activity where students work in groups and then report out answers after 10 minutes of brainstorm. If leading a whole class discussion, use the prompts below or create your own to get the students to begin thinking about transportation options. If the students are working in small groups, assign each group one or two questions that they can discuss and then report back to the class.
- Prompts:
  - Why do people walk or bike? (fun, environment, save money)
  - Is using a lot of gasoline a good thing?
  - Do you think it is easy or safe for students your age to walk and bike?
  - What are some challenges or problems with driving?
  - What are some challenges or problems with walking or bicycling?
  - What are benefits of walking and bicycling?
  - How many of you have bicycles?
  - How many of you have helmets?

#### **ASSIGNMENT**

Your first assignment is a journal entry in which you should answer the following questions:

- How do you normally get around?
- How do you get to school?
- What is your favorite way to travel to school and around the city?
- Do you think that you would ever walk or bike to school?
- What are some challenges and benefits of walking and biking?

#### **ADDITIONAL RESOURCES**

Below are some resources that could prove helpful to you as you begin implementing a walking and bicycling curriculum at your school.

Bicycle Federation of Wisconsin Walking and Bicycling Curriculum:

[http://www.bfw.org/education/index.php?category\\_id=3880&subcategory\\_id=5306](http://www.bfw.org/education/index.php?category_id=3880&subcategory_id=5306)

Bike Smart Vermont Curriculum:

<http://www.healthandlearning.org/bikesmart.html>

League of American Bicyclists Website:

<http://www.bikeleague.org/index.php>

National Center for Bicycling and Walking Website:

[http://www.bikewalk.org/ncbw\\_pubs.php](http://www.bikewalk.org/ncbw_pubs.php)

National Center for Safe Routes to Schools

<http://www.saferoutesinfo.org/>

## LESSON TWO

### Pedestrian Safety (60 minutes)

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#### **PURPOSE**

*Introduce, discuss and learn safe walking practices.*

#### **STANDARDS<sup>1</sup>**

Tennessee Health Education Standards: Grades 3-5

Standard 1: Decision Making/Personal Health and Wellness

Standard 14: Environmental and Community Health Knowledge

Tennessee Physical Education Standards: Grades 3-5

Standard 5: Personal and Social Responsibility

Standard 6: Values Physical Education

#### **MATERIALS NEEDED**

- ✓ Transportation Investigation Chart
- ✓ Student Journals or Paper
- ✓ Big Paper/Markers for Brainstorming
- ✓ ASIMO Video ([asimo.honda.com](http://asimo.honda.com))
- ✓ Copies of the Walkability Checklist

#### **LESSON OUTLINE/SEQUENCE**

1. Introduction to Pedestrian Safety: Why Walk Discussion (10 minutes)
  - This is day two of our unit on walking and bicycling.
  - Facilitate a discussion with students about the benefits of walking. Use the following prompts to begin the discussion or break students into small groups or pairs for 5 minutes and then have them report out answers.

Prompts:

  - What are some health benefits of walking?
  - Do you think you could walk to school?
  - What do you think are some challenges that walkers in your neighborhood face?
  - Think about your neighborhood or the neighborhood around our school. Are there places where walkers can walk?
2. Video: ASIMO (15 minutes)
  - Go to [asimo.honda.com](http://asimo.honda.com) to view a free video about walking safety. The ASIMO site contains a lot of great information regarding pedestrian safety, as well as free resources for teachers, including expanded pedestrian curriculum materials and free videos/DVDs.
  - Prior to starting the video, explain to the students the vocabulary words **predictable** and **visible**. Ask the students to record on paper 3 ways that the video shows how being predictable keeps us safe, and 3 ways that the video shows how being visible keeps us safe.

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<sup>1</sup> <http://www.tennessee.gov/education/curriculum.shtml>

- After the film, ask students to offer some examples of predictable and visible pedestrian behavior.

### **LESSON OUTLINE/SEQUENCE (cont.)**

#### **3. Question Game (20 minutes)**

- This game works best by dividing the class into a number of teams, depending upon size.
- Read each of the questions below aloud and then call on the team that raises their hand first after each question has been read, or facilitate the discussion in a way that seems appropriate to your students. For each question the team gets correct, give them a point.

#### **Prompts:**

- What is a pedestrian?
- Name three reasons to walk.
- On a street with vehicles driving in two different directions, which side of the road do they drive on?
- Explain the difference between a sidewalk and a crosswalk.
- Who should drivers make eye contact with before you cross the street?
- Besides using your eyes, what is another way to know if a vehicle is coming?
- At a busy street where is the safest place to cross?
- What are three types of transportation that do not pollute?

#### **4. Transportation Investigation (5 minutes)**

- How many of you walked or biked to school today? Have students record information on their individual charts, or create a large chart to display in classroom that you can track with students.
- How many of you ever have walked or biked to school? Record information on chart.
- Explain to students that the hope is to have more walking and biking over the coming weeks and that they will track walking and biking each day on the transportation investigation chart.

#### **5. Class Walk with Walkability Checklist (10 minutes)**

- Explain to the students that they are going to go outside, under your supervision for a class walk.
- Using either the walkability checklist provided or if too complicated using the general principles of the walkability checklist to create your own age appropriate prompts, ask the students to observe the walking environment outside of the school.

### **ASSIGNMENT**

- Your second assignment is a letter to the mayor in which you should describe to him/her the importance of walking and pedestrian rights. You should also describe to the mayor the walking environment around your school. Was it a good or bad environment? What should the mayor know about walking in your neighborhood?

### **ADDITIONAL RESOURCES**

*For additional resources, see the resources including with the walkability checklist provided on the following pages.*

# Walkability Checklist

## How walkable is your community?

### Take a walk with a child and decide for yourselves.

Everyone benefits from walking. These benefits include: improved fitness, cleaner air, reduced risks of certain health problems, and a greater sense of community. But walking needs to be safe and easy. Take a walk with your child and use this checklist to decide if your neighborhood is a friendly place to walk. Take heart if you find problems, there are ways you can make things better.

### Getting started:

First, you'll need to pick a place to walk, like the route to school, a friend's house or just somewhere fun to go.

The second step involves the checklist. Read over the checklist before you go, and as you walk, note the locations of things you would like to change. At the end of your walk, give each question a rating. Then add up the numbers to see how you rated your walk overall.

After you've rated your walk and identified any problem areas, the next step is to figure out what you can do to improve your community's score. You'll find both immediate answers and long-term solutions under "Improving Your Community's Score..." on the third page.



Partnership for a  
Walkable America



Pedestrian and Bicycle Information Center



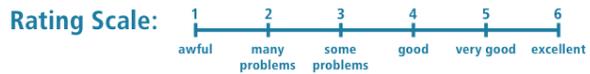
U.S. Department  
of Transportation



Take a walk and use this checklist to rate your neighborhood's walkability.

# How walkable is your community?

Location of walk \_\_\_\_\_  
 \_\_\_\_\_



## 1. Did you have room to walk?

- Yes     Some problems:
- Sidewalks or paths started and stopped
  - Sidewalks were broken or cracked
  - Sidewalks were blocked with poles, signs, shrubbery, dumpsters, etc.
  - No sidewalks, paths, or shoulders
  - Too much traffic
  - Something else \_\_\_\_\_
- Locations of problems: \_\_\_\_\_

Rating: (circle one) \_\_\_\_\_  
 1 2 3 4 5 6 \_\_\_\_\_

## 2. Was it easy to cross streets?

- Yes     Some problems:
- Road was too wide
  - Traffic signals made us wait too long or did not give us enough time to cross
  - Needed striped crosswalks or traffic signals
  - Parked cars blocked our view of traffic
  - Trees or plants blocked our view of traffic
  - Needed curb ramps or ramps needed repair
  - Something else \_\_\_\_\_
- Locations of problems: \_\_\_\_\_

Rating: (circle one) \_\_\_\_\_  
 1 2 3 4 5 6 \_\_\_\_\_

## 3. Did drivers behave well?

- Yes     Some problems: Drivers...
- Backed out of driveways without looking
  - Did not yield to people crossing the street
  - Turned into people crossing the street
  - Drove too fast
  - Sped up to make it through traffic lights or drove through traffic lights?
  - Something else \_\_\_\_\_
- Locations of problems: \_\_\_\_\_

Rating: (circle one) \_\_\_\_\_  
 1 2 3 4 5 6 \_\_\_\_\_

## 4. Was it easy to follow safety rules?

### Could you and your child...

- Yes     No    Cross at crosswalks or where you could see and be seen by drivers?
- Yes     No    Stop and look left, right and then left again before crossing streets?
- Yes     No    Walk on sidewalks or shoulders facing traffic where there were no sidewalks?
- Yes     No    Cross with the light?
- Locations of problems: \_\_\_\_\_

Rating: (circle one) \_\_\_\_\_  
 1 2 3 4 5 6 \_\_\_\_\_

## 5. Was your walk pleasant?

- Yes     Some unpleasant things:
- Needed more grass, flowers, or trees
  - Scary dogs
  - Scary people
  - Not well lighted
  - Dirty, lots of litter or trash
  - Dirty air due to automobile exhaust
  - Something else \_\_\_\_\_
- Locations of problems: \_\_\_\_\_

Rating: (circle one) \_\_\_\_\_  
 1 2 3 4 5 6 \_\_\_\_\_

## How does your neighborhood stack up?

### Add up your ratings and decide.

1. \_\_\_\_\_    **26-30** Celebrate! You have a great neighborhood for walking.
2. \_\_\_\_\_
3. \_\_\_\_\_    **21-25** Celebrate a little. Your neighborhood is pretty good.
4. \_\_\_\_\_    **16-20** Okay, but it needs work.
5. \_\_\_\_\_    **11-15** It needs lots of work. You deserve better than that.
- Total** \_\_\_\_\_    **5-10** It's a disaster for walking!

Now that you've identified the problems,  
 go to the next page to find out how to fix them.

Now that you know the problems,  
you can find the answers.

# Improving your community's score...



## 1. Did you have room to walk?

Sidewalks or paths started and stopped  
Sidewalks broken or cracked  
Sidewalks blocked  
No sidewalks, paths or shoulders  
Too much traffic

### What you and your child can do immediately

- pick another route for now
- tell local traffic engineering or public works department about specific problems and provide a copy of the checklist

### What you and your community can do with more time

- speak up at board meetings
- write or petition city for walkways and gather neighborhood signatures
- make media aware of problem
- work with a local transportation engineer to develop a plan for a safe walking route

## 2. Was it easy to cross streets?

Road too wide  
Traffic signals made us wait too long or did not give us enough time to cross  
Crosswalks/traffic signals needed  
View of traffic blocked by parked cars, trees, or plants  
Needed curb ramps or ramps needed repair

- pick another route for now
- share problems and checklist with local traffic engineering or public works department
- trim your trees or bushes that block the street and ask your neighbors to do the same
- leave nice notes on problem cars asking owners not to park there

- push for crosswalks/signals/ parking changes/curb ramps at city meetings
- report to traffic engineer where parked cars are safety hazards
- report illegally parked cars to the police
- request that the public works department trim trees or plants
- make media aware of problem

## 3. Did drivers behave well?

Backed without looking  
Did not yield  
Turned into walkers  
Drove too fast  
Sped up to make traffic lights or drove through red lights

- pick another route for now
- set an example: slow down and be considerate of others
- encourage your neighbors to do the same
- report unsafe driving to the police

- petition for more enforcement
- request protected turns
- ask city planners and traffic engineers for traffic calming ideas
- ask schools about getting crossing guards at key locations
- organize a neighborhood speed watch program

## 4. Could you follow safety rules?

Cross at crosswalks or where you could see and be seen  
Stop and look left, right, left before crossing  
Walk on sidewalks or shoulders facing traffic  
Cross with the light

- educate yourself and your child about safe walking
- organize parents in your neighborhood to walk children to school

- encourage schools to teach walking safely
- help schools start safe walking programs
- encourage corporate support for flex schedules so parents can walk children to school

## 5. Was your walk pleasant?

Needs grass, flowers, trees  
Scary dogs  
Scary people  
Not well lit  
Dirty, litter  
Lots of traffic



- point out areas to avoid to your child; agree on safe routes
- ask neighbors to keep dogs leashed or fenced
- report scary dogs to the animal control department
- report scary people to the police
- report lighting needs to the police or appropriate public works department
- take a walk with a trash bag
- plant trees, flowers in your yard
- select alternative route with less traffic

- request increased police enforcement
- start a crime watch program in your neighborhood
- organize a community clean-up day
- sponsor a neighborhood beautification or tree-planting day
- begin an adopt-a-street program
- initiate support to provide routes with less traffic to schools in your community (reduced traffic during am and pm school commute times)

## A Quick Health Check

Could not go as far or as fast as we wanted  
Were tired, short of breath or had sore feet or muscles  
Was the sun really hot?  
Was it hot and hazy?

- start with short walks and work up to 30 minutes of walking most days
- invite a friend or child along
- walk along shaded routes where possible
- use sunscreen of SPF 15 or higher, wear a hat and sunglasses
- try not to walk during the hottest time of day

- get media to do a story about the health benefits of walking
- call parks and recreation department about community walks
- encourage corporate support for employee walking programs
- plant shade trees along routes
- have a sun safety seminar for kids
- have kids learn about unhealthy ozone days and the Air Quality Index (AQI)

Need some guidance?  
These resources might help...

# Great Resources

## WALKING INFORMATION

Pedestrian and Bicycle Information Center (PBIC)  
UNC Highway Safety Research Center  
730 Airport Road, Suite 300  
Campus Box 3430  
Chapel Hill, NC  
27599-3430  
Phone: (919) 962-2202  
[www.pedbikeinfo.org](http://www.pedbikeinfo.org)  
[www.walkinginfo.org](http://www.walkinginfo.org)

National Center for  
Bicycling and Walking  
Campaign to Make  
America Walkable  
1506 21st Street, NW  
Suite 200  
Washington, DC 20036  
Phone: (800) 760-NBPC  
[www.bikefed.org](http://www.bikefed.org)



## WALK TO SCHOOL DAY WEB SITES

USA event: [www.walktoschool-usa.org](http://www.walktoschool-usa.org)  
International: [www.iwalktoschool.org](http://www.iwalktoschool.org)

## STREET DESIGN AND TRAFFIC CALMING

Federal Highway Administration  
Pedestrian and Bicycle Safety Research Program  
HSR - 20  
6300 Georgetown Pike  
McLean, VA 22101  
[www.fhwa.dot.gov/environment/bikeped/index.htm](http://www.fhwa.dot.gov/environment/bikeped/index.htm)

Institute of Transportation Engineers  
[www.ite.org](http://www.ite.org)

Surface Transportation Policy Project  
[www.transact.org](http://www.transact.org)

Transportation for Livable Communities  
[www.tlcnetwork.org](http://www.tlcnetwork.org)

## WALKING COALITIONS

America Walks  
P.O. Box 29103  
Portland, Oregon 97210  
Phone: (503) 222-1077  
[www.americawalks.org](http://www.americawalks.org)

Partnership for a Walkable America  
National Safety Council  
1121 Spring Lake Drive  
Itasca, IL 60143-3201  
Phone: (603) 285-1121  
[www.nsc.org/walkable.htm](http://www.nsc.org/walkable.htm)



## PEDESTRIAN SAFETY

National Highway Traffic Safety Administration  
Traffic Safety Programs  
400 Seventh Street, SW  
Washington, DC 20590  
Phone: (202) 662-0600  
[www.nhtsa.dot.gov/people/injury/pedbimot/ped](http://www.nhtsa.dot.gov/people/injury/pedbimot/ped)

National SAFE KIDS Campaign  
1301 Pennsylvania Ave. NW  
Suite 1000  
Washington, DC 20004  
Phone: (202) 662-0600  
Fax: (202) 393-2072  
[www.safekids.org](http://www.safekids.org)

## WALKING AND HEALTH

US Environmental Protection Agency  
Office of Children's Health Protection (MC 1107A)  
Washington, DC 20460  
Phone: 202-564-2188  
Fax: 202-564-2733  
[www.epa.gov/children/](http://www.epa.gov/children/)  
[www.epa.gov/airnow/](http://www.epa.gov/airnow/)  
[www.epa.gov/air/urbanair/ozone/what.html](http://www.epa.gov/air/urbanair/ozone/what.html)  
[www.epa.gov/sunwise/uvindex.html](http://www.epa.gov/sunwise/uvindex.html)  
[www.epa.gov/otaq/transp/comchoic/ccweb.htm](http://www.epa.gov/otaq/transp/comchoic/ccweb.htm)

President's Task Force on Environmental Health Risks and  
Safety Risks to Children  
[www.childrenshealth.gov](http://www.childrenshealth.gov)

Centers for Disease Control and Prevention  
Division of Nutrition and Physical Activity  
Phone: (888) 232-4674  
[www.cdc.gov/nccdphp/dnpa/readysat](http://www.cdc.gov/nccdphp/dnpa/readysat)  
[www.cdc.gov/nccdphp/dnpa/kidswalk/index.htm](http://www.cdc.gov/nccdphp/dnpa/kidswalk/index.htm)

Prevention Magazine  
33 East Minor Street  
Emmaus, PA 18098  
[www.itsallaboutprevention.com](http://www.itsallaboutprevention.com)

Shape Up America!  
6707 Democracy Boulevard  
Suite 306  
Bethesda, MD 20817  
[www.shapeup.org](http://www.shapeup.org)



## ACCESSIBLE SIDEWALKS

US Access Board  
1331 F Street, NW  
Suite 1000  
Washington, DC 20004-1111  
Phone: (800) 872-2253;  
(800) 993-2822 (TTY)  
[www.access-board.gov](http://www.access-board.gov)

## LESSON THREE

### Bicycle Safety (90 minutes)<sup>1</sup>

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#### **PURPOSE**

*Introduce and discuss safe bicycling practices.*

#### **STANDARDS<sup>2</sup>**

Tennessee Health Education Standards: Grades 3-5

Standard 1: Decision Making/Personal Health and Wellness

Standard 14: Environmental and Community Health Knowledge

Tennessee Physical Education Standards: Grades 3-5

Standard 5: Personal and Social Responsibility

Standard 6: Values Physical Education

#### **MATERIALS NEEDED**

- ✓ Transportation Investigation Chart
- ✓ Student Journals or Paper
- ✓ Big Paper/Markers for Brainstorming
- ✓ Helmets
- ✓ Bicycle
- ✓ Wisconsin Curriculum Materials (provided)

#### **LESSON OUTLINE/SEQUENCE**

1. Transportation Investigation (5 minutes)
  - How many of you walked or biked to school today? Have students record information on their individual charts, or create a large chart to display in classroom that you can track with students.
  - How many of you ever have walked or biked to school? Record information on chart.
  - Explain to students that the hope is to have more walking and biking over the coming weeks and that they will track walking and biking each day on the transportation investigation chart.
2. Why Do We Have Traffic Laws? (5 minutes)
  - Conduct a discussion with students about the basic ideas behind traffic laws, why they exist, and hammer home the point that bicycles are vehicles, akin to cars and trucks.

Notes:

- Laws exist to keep us safe.
- There are laws in Tennessee that exist to keep bicyclists safe.
- Bicycles are VEHICLES just like cars, trucks, etc. when it comes to the law.

Prompts:

- What does it mean to be a vehicle?

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<sup>1</sup> If needed, readjust times to fit into 60 minute time block, or split into two 45 minute sessions.

<sup>2</sup> <http://www.tennessee.gov/education/curriculum.shtml>

- What are some laws that all vehicles, including cars and bikes should follow?
- What are the consequences for breaking those laws?
- In Tennessee our laws help to keep us predictable and visible? Who remembers from yesterday what predictable and visible mean?

3a. Seven Safe Bicycling Practices Brainstorm (10 minutes)

- For this segment of the lesson, divide the class into six groups, giving each group one of the six questions to discuss. Ask students to write or draw a picture of what they think the answer to the question might be. Have students share their answers and then discuss each question in detail making sure that students know the appropriate and correct answer. The seventh question about hand signals should be taught following the discussion.

Prompts:

- What is the most important thing to wear when bicycling?
- Where should people age 10 and up ride their bicycles?
- Should you ride in the same direction as traffic or against traffic?
- Where on the right side of the street should we bike?
- Do bicyclists need to follow traffic signs and signals?
- Do bicyclists need lights at night?

3b. Hand Signals Game (5 minutes)

- Teach students the basic bicycling hand signals. After you have taught them the basic signals, shout out “right turn”, “stop” and “left turn” in random order and have students signal as if they were on a bike.

Hand Signals:

- Right Turn: Extend right arm out from your side.
- Left Turn: Extend left arm out from your side.
- Stop: Extend left arm out from your side and bend your arm so you are pointing down with your hand with your palm facing back.

4. Wisconsin Curriculum (65 minutes)

- The Bicycle Federation of Wisconsin ([www.bfw.org](http://www.bfw.org)) has developed an excellent extended curriculum for teaching walking and bicycling. For the second half of your safety lesson, use Lesson 2: Helmets (included in the following pages) as a guide.

## Lesson 2: Helmets

### In-class

*Purpose: Students learn about bike parts, the importance and proper fit of bicycle helmets and how to perform a basic bicycle safety check.*



### 1.) Transportation Investigation

- Who walked or biked to school today? Record data on chart.
- Collect homework assignments and any permission slips.

### 2.) Discuss the Importance of the Brain (10 minutes)

#### What is the most important part of your body?

- The brain is the most important part of the human body.
- The brain is the central control station for our whole body.
- What does your brain do for you?
  - Like a computer's hard drive, the brain controls all functions of our body.
  - The brain is our thinking tool that enables us to read, do math and control our emotions in addition to controlling our ability to speak, walk, talk, cry, dance, and kick. Our brains also control our bodies. What are some sports you like to play? Your brain tells your body how to move so that you can play all those sports.
  - Our brain tells our bodies when we are hungry, controls our breathing, digestion, chewing, muscular movements, and other things like peeing, sneezing and coughing.

#### A life changing experience

- Not only is the brain super important, it is also delicate and does not heal.
- The brain has the consistency of Jell-O and unlike other body parts, cannot heal itself.
  - For example, if we cut our finger what happens? It bleeds our blood clots and stops the bleeding, we get a scab and eventually our skin heals. If your hurt your brain, it will not heal.
  - Brain damage can even happen from what seems like a small event. Some people have permanently injured their brains by simply hitting their heads on the ground.
- What does a brain injury mean?
  - It means you could lose your memory, your ability to speak or walk.
  - How would your life change if you couldn't move your body?
- This is why people wear helmets.
  - Not only bicyclists wear helmets but many sports and professions require helmets.
  - What sports use helmets? Biking, skating, football, baseball, hockey, rock climbing, skiing, motorcycle racing, and car racing.
  - What jobs require helmets? Construction, jet pilot, astronaut, and firefighters.
- Research shows that up to 90% of deaths from bicycle crashes are the result of head trauma.
- Many doctors agree that if all bicyclists wore helmets, 75% or more of bicycle-related deaths would be eliminated.

- We will always wear helmets when we ride together and you will get to keep your helmet at the end of the program.

### 3.) Video: *Ride Smart—it's Time to Start (10 minutes)*

Video covers brain importance, helmet choice, how to properly fit a helmet, and rules of the road.



### 4.) Helmets! (25 minutes)

#### Eyes, Ears, Mouth Check

- A helmet has to be worn properly to protect your brain.
- Demonstrate a properly fitted helmet using the eyes, ears, mouth check.
- **Eyes**—The front edge of the helmet should be visible when you look up.
- **Ears**—The two ear straps should meet under your ears so that the adjustable piece fits almost like an earring with your ear in the center of a Y formed by the straps.
- **Mouth**—The chinstrap should be adjusted so that when you open your mouth wide, the strap becomes tight but not so tight that it is uncomfortable.
- Misadjust your helmet and have students explain how to fit your helmet correctly.

#### Distribute Helmets

- Have students help to adjust each other's helmets
- Double check student's helmets for proper fit and label each helmet with student's name in permanent marker.
- Have students put helmets in plastic grocery bags to prevent lice transfer.
- Have students put their helmets in the storage bags for the remainder of class.

### 5.) Introduction to a Bicycle (10 minutes)

#### Hang Tag Activity

- Display a bicycle in front of the classroom.
- Use tags labeled with bike parts and twist-ties attached to label the bike parts. Read a tag and call on a student to come up and tie it to the correct part of the bicycle.
  - Try to begin with easier parts and finish with the most difficult.
  - Ask students to explain the function of each part they identify.
  - Consider having different styles of bicycles (BMX, road bike, mountain bike).
  - Students can follow along with the Bike Parts Worksheet.

#### ABC Quick Check

The ABC Quick Check is a simple check that should be done each time before riding your bike to ensure it is safe. Each letter in ABC Quick Check stands for something.

- **What does the A stand for? – Air:** Push down on each tire with your thumb to see if there is enough air.
  - A properly inflated tire should be hard when you push down on it.
  - Having the proper amount of air in your tire will assure that you have proper traction, help you go faster, and reduce your chance of a flat tire.
- **What does the B stand for? – Brakes:** Squeeze each brake lever one at a time, the brake pads should contact the rim squarely and fully stop the wheel from moving.

- If your bike has a coaster brake, you stop by pedaling backwards. Make sure that the coaster brake arm is fastened to the chain stay of the bicycle.
- **What does the C stand for? – Chain:** Touch the chain to make sure that it is well oiled.
  - If you have a BMX bike, also make sure that the chain is tight.
  - What color should your chain be? Silver, black. What colors are bad? Red, brown.
  - What does it mean if your chain is red or brown? It's rusty.
  - How can we keep a chain from rusting? Oil
  - What kind of oil should we use? Bike oil only. You always have to use the right oil for the job. Car oil is for cars, cooking oil for cooking, bike oil is for bikes. You don't want to use car oil for cooking or cooking oil for you bike. Always use the right oil for the job.
- **Quick** – Look to see that all of the quick release levers are secure (they may be located on the axle of each wheel and the seat post).
  - Demonstrate how to properly close a quick release lever: holding the quick release lever open, tighten the axle nut so that when you close the lever you feel some resistance.
  - A quick release lever is closed properly if the side of the lever facing outward says "closed" or the lever is curved inward.
  - Demonstrate how easily a front wheel can be removed if the quick release lever is not secured. Imagine if your wheel came off while you were riding!
- **Check** – Spin each wheel to check that it is straight and not rubbing the brakes.
- **Demonstration:** Ask how long the students think the ABC Quick Check would take. Have them time you doing it. (It could take as little as 10 seconds.) Ask if they think they could spare that many seconds before each ride to make sure their bike is safe.



## 6) Assignment

- Vocabulary worksheet.
- Remind students to bring signed permission slips in order to participate tomorrow.

### Materials

Ride Smart Video  
 Helmets  
 Plastic bag for each helmet  
 Permanent markers  
 Laundry bags to hold helmets  
 Bicycle part tags  
 Bicycle Parts Worksheet  
 Safe Bike Driver's Word Hunt

**Safe Bike Drivers Word Hunt**



Directions: After you have looked over the vocabulary sheet, see if you can find the 12 hidden words. Can you find them all?

T	D	P	E	D	E	S	T	R	I	A	N	H	V	N	I
I	R	L	D	P	O	L	L	U	T	I	O	N	G	P	V
N	H	A	R	U	B	E	M	B	R	E	F	R	V	R	C
T	Q	N	S	E	O	P	W	B	A	T	L	P	N	E	E
E	K	E	F	P	R	B	E	T	F	P	A	Q	X	D	V
R	U	P	I	P	O	T	B	A	F	N	N	M	P	I	L
S	M	O	Y	D	X	R	E	Z	I	P	E	W	T	C	S
E	B	S	O	R	B	W	T	Y	C	M	H	X	Q	T	V
C	X	I	U	I	B	P	H	A	Z	A	R	D	H	A	I
T	H	T	Z	V	D	T	M	J	T	P	E	G	S	B	N
I	Q	I	L	E	T	M	A	B	V	I	S	I	B	L	E
O	I	O	T	R	A	T	C	O	P	S	O	P	O	E	P
N	C	N	W	C	O	L	L	I	S	I	O	N	P	B	N

**Hang Tags**



<b>Front Brake</b>	<b>Rear Brake</b>
<b>Brake Lever</b>	<b>Shift Lever</b>
<b>Front Derailleur</b>	<b>Rear Derailleur</b>
<b>Chain</b>	<b>Frame</b>
<b>Fork</b>	<b>Rim</b>
<b>Spoke</b>	<b>Valve Stem</b>
<b>Tire</b>	<b>Wheel</b>
<b>Handlebar</b>	<b>Saddle/Seat</b>
<b>Seat Post</b>	<b>Quick Release Lever</b>
<b>Pedal</b>	<b>Reflector</b>

## LESSONS FOUR AND FIVE

### On Bike Skills

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#### **PURPOSE**

*Familiarize students with a bicycle and teach them basic bicycling handling skills.*

#### **STANDARDS<sup>1</sup>**

Tennessee Health Education Standards: Grades 3-5

Standard 1: Decision Making/Personal Health and Wellness

Standard 4: Physical Activity and Healthy Living

Standard 14: Environmental and Community Health Knowledge

Tennessee Physical Education Standards: Grades 3-5

Standard 1: Movement Forms and Motor Skills

Standard 2: Movement Concepts and Principles

Standard 3: Physical Activity

Standard 4: Fitness

#### **MATERIALS NEEDED**

- ✓ Transportation Investigation Chart
- ✓ Student Journals or Paper
- ✓ Big Paper/Markers for Brainstorming
- ✓ Helmets
- ✓ Bicycles
- ✓ Cones
- ✓ Chalk
- ✓ Tape
- ✓ Parent Volunteers/Teachers
- ✓ Stop Signs
- ✓ Tennis Balls (cut in half)

#### **LESSON OUTLINE/SEQUENCE**

0. Pre-class preparation

*Make sure to allow adequate time each day before school to set up the course, unload bikes, meet with any volunteers, etc.*

1. Transportation Investigation (5 minutes)

- How many of you walked or biked to school today? Have students record information on their individual charts, or create a large chart to display in classroom that you can track with students.
- How many of you ever have walked or biked to school? Record information on chart.
- Explain to students that the hope is to have more walking and biking over the coming weeks and that they will track walking and biking each day on the transportation investigation chart.

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<sup>1</sup> <http://www.tennessee.gov/education/curriculum.shtml>

## 2. In-Class Preparation (10 minutes)

- Explain homework assignment reflecting on today's bicycling experience.
- Review the rules that will be followed while on the bikes:
  1. If you are on a bike you must wear a helmet. Remind students of proper helmet fit and sizing.
  2. The instructors will give out bicycles and only ride when instructed to do so.
  3. Only bike within designated areas and remember our safe bicycling practices.
  4. Listen to all instructors.
  5. Remember this is part of a lesson, not recess, so it is important to pay attention.

## 3. On-Bike Skills (90 minutes, to be completed over two days if possible)

- ***For this segment of the lesson, it is incredibly imperative that you get some help from parents or other teachers. It is recommended that you have one adult for every one child. This will ensure the safety of the students and if you have limited time in which to teach the lesson, you could create many small courses or "stations" have the students rotate through to each station. It is not advisable for one P.E. or Health teacher to be teaching a group of 40 students on bike skills.***
- Have students line up from shortest to tallest and distribute bikes according to size. If you are using fewer bikes than students, group students based upon size and then have them rotate or take turns using the bikes. Walk bikes to where course is setup. Have all of the students perform the ABC Quick Check. Station parents throughout the course, or if using the stations approach send them to their stations and begin the drills.

1. Ready Position—It is easiest to begin biking when you push down on your pedal to start moving.

- Demonstrate how fumbling with your pedals can be dangerous.

2. Braking—Apply equal pressure to each brake lever or use both the hand brake and the coaster brake when slowing down or stopping. Always remain seated when braking!

- Demonstrate how easy it is for the back of the bicycle to lift up when there is no weight over the rear wheel. Then show how difficult it is for the back of the bike to be lifted with weight over the back wheel by staying seated.

3. Riding in a Straight Line—Have students bike in a straight line, following a line on the ground, practicing braking at the end of the course. Students should return to the starting area. The activity could be enhanced by adding turns in the line, and asking students to practice turning signals when hitting those points in the course.

## 4. Scanning

- When we are biking in the street, it is our job to be aware of what is going on around us. We must make sure to yield to vehicles when they have the right of way.
- When we want to make a left turn on a bicycle where do we need to look for cars? ALL directions, but first behind us. Have instructor demonstrate the need to look back before moving left.

- We scan to make sure there are no vehicles behind us or on our left.
- Everyone is going to practice riding in a straight line and checking behind them for traffic. Why is it important to be able to keep biking straight while looking backwards?
- Have students take turns biking in a straight line away from the instructor. The instructor should position themselves 5-8 feet left of the line. When the instructor says “LOOK!” students look back over their left shoulder and tell whether or not the instructor is holding up one or two arms. Repeat.
- Students should be able to scan over their left shoulder while continuing to bike in a straight line.
- Instruct students who are having trouble to put their hand on their left thigh while they look back over their shoulder. This should help with their stability.

-----End of First Day of On Bike Skills-----

#### 5. Rock Dodge

- Construct a normal course with lanes and put a number of “rocks” (halved tennis balls) throughout the course.
- It is a good idea to have the rocks spaced further apart early on in the course with more at the end allowing the students time to get used to hazards in the road. You may also have them do the rock dodge once with a few tennis balls and then again with noticeably more. Discuss with them the differences that they encountered.
- Let the students know that it is important to try to swerve right when you come to a hazard in the road as to avoid on coming traffic, including vehicles from behind.

#### 6. Slalom Course

- Put down a solid line with chalk or tape.
- Place cones or tennis balls 3-6 feet apart on the line. Have students practice weaving in and out of the tennis balls.

#### 7. Snail Race

- Construct a race lane or somewhat wide course with a start and end point. Explain to the students that the point of this race is to be the last finisher! Have students see how slow they can go on their bikes without putting a foot down or going outside of the race lane boundaries. If they put a foot down or go outside the lane, have them start over.
- This activity helps them practice balancing skills.

#### 8. Driveways Activity and Locking (could be done off bike)

- Construct a course that simulates a driveway. If possible, place a vehicle in the driveway and exhibit to students how far they need to be from cars (3 feet) in order to be safe.
- Locking: Take a group of students over to the bike rack or a place outside of the school that you could use to lock bikes up. Talk about locking techniques, the different types of locks and the importance of locking up your bike.

## 9. Right Turns

- Create an intersection using tape, sidewalk chalk or cones. If possible include stop signs.
- Split the class into two equal groups.
- Have the students practice making right hand turns, including signaling in the mock intersection. Make sure to remind the students to look left-right-left.

## 10. Left Turns

- If four instructors are present, it is best to split the class in two and teach each group separately on opposite sides of the intersection.

### *Pedestrian Style Left Turn*

- Demonstrate and then have students bike to the corner, walk or ride across the first street, position their bicycle in the farthest right hand lane and then walk or ride their bike across the street.
- This style of left turn is particularly useful when turning left through a busy intersection or when there are multiple lanes to cross to get to the left turn lane.

### *Traffic Style Left Turn*

- Chalk a starting line in the right most lane at least 25 feet from the intersection where students will be turning left. Have students begin biking in the far right lane toward the intersection, scanning over their left shoulder to see if there are any vehicles coming from behind, signal left, move into left lane and indicate stop. Have students then yield to oncoming traffic, look left-right-left, signal a left turn and turn left through the intersection.
- EMPHASIZE the importance of looking over the left shoulder to check for traffic behind their bicycle!

## 11. Free Riding

- Split the class into two groups and have each take turns turning through the intersection.
- Students must follow all of the safe bicycling practices, look left-right-left, yield, follow road signs, etc.

## **ASSIGNMENTS**

### *Assignment 1 (after day one of on bike skills)*

For this evening's assignment, have students write a journal entry reflecting on their bicycling experiences so far. What have you learned? What do you still have questions about? What was particularly challenging or fun? What was your favorite moment?

### *Assignment 2 (after day two of on bike skills)*

Interview a relative or neighbor about how they traveled to school when they were your age. Write a paragraph about their answers.