



Cooperative Riding



Time: 30-45 minutes

Studies have demonstrated that skill-building activities are the most effective way to promote student retention of bicycling safety skills. Lesson objectives set the stage for building safety skills, which are emphasized through students' participation in class activities. This curriculum does not cover every possible scenario that a child may encounter as a bicyclist but instead addresses the basic skills needed to be a safe bicyclist. Teachers should use their discretion to break up material to accommodate their daily schedules. The following Skill-Building Activities are an essential component to this curriculum, and all lessons should be complemented with the reinforcement of safe bicycling behavior. More time can be spent on practicing skills if children are already familiar with the core material.

Lesson Objectives

This lesson further develops a child's ability to interact with others using the street by using simulated driveways on a roadway. By practicing cooperative interactions while maneuvering and controlling the bicycle in a safe and controlled environment, they can become more proficient in skills that are necessary for when they are ready to bicycle safely with traffic.

The children will be able to:

- Identify correct direction of travel.
- Enter and exit a roadway safely.
- Make left and right turns after using appropriate hand signals.
- Safely cross the path of pedestrians, bicyclists and other vehicles.
- Identify high-risk situations in a simulated traffic environment and respond appropriately without creating conflict with pedestrians, bicyclists and other vehicles.
- Predict the movement of pedestrians, bicyclists and other vehicles.
- Ride predictably by using hand signals and "reading" communication from others, such as hand signals, eye contact, and yielding.

Why This Lesson is Important

Many conflicts, collisions and crashes involve failure to communicate effectively and use the road cooperatively. Bicyclists can reduce this risk by developing handling skills, a practical understanding of the traffic environment, and the mutual rights and responsibilities of pedestrians, bicyclists and other vehicles.

Essential Standards

<p>4.PCH.4.2: Identify personal protection equipment needed for sports or recreational activities.</p> <p>PE.4.MS.1.2: Create movement skill sequences commonly associated with various sports and activities.</p> <p>PE.4.PR.4.2: Use cooperation and communication skills to achieve common goals.</p> <p>4.P.3.2: Recognize that light travels in a straight line until it strikes an object or travels from one medium to another, and that light can be reflected, refracted, and absorbed.</p>	<p>P.E.5.MS.1.2: Use increasingly complex skills with power and accuracy.</p> <p>PE.5.HF.3.2: Implement strategies to achieve health-related physical fitness.</p> <p>PE.5.PR.4.2: Use cooperation and communication skills to achieve common goals.</p> <p>5.NPA.3.2: Explain the benefits of regular physical activity on physical, mental, emotional, and social health.</p>
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Common Core

<p>CCSS.ELA-Literacy.W.4.7: Conduct short research projects that build knowledge through investigation of different aspects of a topic.</p> <p>CCSS.ELA-Literacy.SL.4.4: Report on a topic or text, tell a story, or recount an experience in an organized manner, using appropriate facts and relevant, descriptive details to support main ideas or themes; speak clearly at an understandable pace.</p> <p>CCSS.ELA-Literacy.SL.4.5: Add audio recordings and visual displays to presentations when appropriate to enhance the development of main ideas or themes.</p>	<p>CCSS.ELA-Literacy.W.5.7: Conduct short research projects that use several sources to build knowledge through investigation of different aspects of a topic.</p> <p>CCSS.ELA-Literacy.SL.5.4: Report on a topic or text or present an opinion, sequencing ideas logically and using appropriate facts and relevant, descriptive details to support main ideas or themes; speak clearly at an understandable pace.</p> <p>CCSS.ELA-Literacy.SL.5.5: Include multimedia components (e.g., graphics, sound) and visual displays in presentations when appropriate to enhance the development of main ideas or themes.</p>
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Guidance

<p>RED.C.2.1: Identify situations from your daily life in terms of problems and solution strategies.</p> <p>EEE.SE.1.2: Illustrate personal responsibility in a variety of settings and situations.</p> <p>P.SE.1.2: Use self determination to build independence.</p> <p>I.SE.1.2: Integrate personal responsibility into the way you live your life on a daily basis.</p>

Cooperative Riding

Grades
4-5

Lesson 4

Cooperative
Riding

Materials

- Instructor bicycle
- One bicycle for each child
- Bicycle helmet for each child and instructor
- Extra helmet sizing pads of various thicknesses
- Surgical or painter's cap for each child (wear under helmet to keep it clean)
- Bicycle tools (2 sets): assortment of crescent and open-end wrenches for seat and handlebar adjustments, regular and Phillips screwdrivers, Allen wrenches
- Bike pump(s)
- Whistle
- Driveways Course Diagram
- 4 rolls of 2" masking tape
- 10' or 12' tape measure
- Props: Free-standing stop sign, 1 Hazard (Created with masking tape, rubber shower mats, or plastic discs to represent a hazard in the roadway without endangering the children), Section of bushes (optional - Represents a visual barrier in the roadway that children must negotiate to see around.)
- Parent/Caregiver Tip Sheet
- Child Assessment – Intermediate Skills Checklist for Grades 4-5 (Class)
- Child Assessment – Intermediate Skills Checklist for Grades 4-5 (Individual)

Preparation

Check general condition of helmets and bikes.

Create the props listed above (This could be done as part of an art class or as a special after-school activity well in advance of this lesson.)

With masking tape, lay out the **Driveways Course** according to the diagram found in the materials section.

NOTE: The course should be set up so that there is sufficient space for children to circle around the course on their bikes to go through the course again. Use a relatively flat and smooth surface.

NOTE: It may be most efficient to set up all skills courses, including those found in Lessons 3 and 5, at the same time.

Review and prepare the **Intermediate Skills Checklist for Grades 4-5**. The checklist should be sent home after the Skill-Building Activity along with the Parent/Guardian Tip sheets included in this lesson. Copy the individual checklist onto the back of the Parent/Caregiver Tip Sheet.

Additional volunteers may be helpful to have on hand during class time to assist with fitting helmets, preparing bicycles, and conducting the on-bike skill building activities. Coordinate with assistants in advance.

Lesson 4 – Demonstration and Skill Building Activity



► **Time:** 30-45 minutes

1. **Bike and Helmet Check**
2. **Review Communication and Cooperation Skills**
3. **Entering and Exiting Driveways using Right Turns**
4. **Entering and Exiting Driveways using Left Turns**
5. **Riding the Loop and Signaling Turns**

Introduction

To start this lesson, children will demonstrate basic bike control: straight line riding, turning, stopping, and starting. This practice will let you assess each child's basic abilities and help you determine if they have enough control to move on to more advanced skills. If children have difficulty with these basic skills, have an assistant work with them individually. After basic skills, they can move onto signaling, scanning, riding with others, and dodging hazards.

Assess skills using the ***Child Assessment – Intermediate Skills Checklist for Grades 4-5 (Class)*** during the lesson.

1. Bike and Helmet Check

Have children fit their helmets and check their bikes before starting the activity.

- Ask each child to do a quick check of his or her bike, including fit.
- Have children check helmets for proper placement and fit.

2. Review Communication and Cooperation Skills

- Review communication and cooperation between pedestrians, bicyclists and other vehicles, including hand signals, eye contact, and yielding.
- Review scanning ahead and behind techniques.
- Ask what you should do and how you should react when you see a hazard on the road.
- Remind children that bicycles are vehicles so they should ride on the right side of the lane with the flow of traffic.

3. Entering and Exiting Driveways using Right Turns

Ask children to pretend that the driveways on the ***Driveways Course*** could be to their house or apartment. Even though driveways don't have stop signs, cyclists should always stop at the end of the driveway to check for vehicles and pedestrians before entering a street. They will ride the course making right turns into and out of driveways. The fence and bushes props can be added near the driveways, so children have to adjust their positions due to visual barriers to see oncoming traffic.

- Demonstrate how to turn right out of a driveway to enter the roadway. Then, riding the loop, demonstrate how to make a right turn into the driveway. Ask children to note your hand signals and speed in executing the turn and turning within the driveway. Emphasize the need to stop and look for traffic at the end of the driveway before entering the street, especially when there are visual obstructions such as bushes and fences at the end of the driveway.
- Divide children into 2 groups with one group positioned at each driveway.

- Ask children to stop at the edge of the street and driveway to check for approaching vehicles, then signal a RIGHT turn. All children will ride around the loop one time then signal and turn RIGHT into their starting driveway.
- Have children exit their respective driveway when there is an appropriate gap in traffic.
- If time permits, have children turn around in the driveway and re-enter the roadway with a right turn to complete another loop, after checking for vehicles and pedestrians.
- Praise, review and remediate as necessary.

4. Entering and Exiting Driveways using Left Turns

Using the **Driveways Course** again, stop children and explain how one must yield to oncoming traffic when making a left turn. This time they will ride the course using left turns into and out of driveways.

- Stop children and demonstrate how to make a LEFT turn out of a driveway to enter the roadway. Then, riding the loop, demonstrate how to make a LEFT turn into the driveway. As you approach the driveway to make the left turn, scan behind for traffic. If there is enough of a gap between you and the other traffic, signal a LEFT turn, scan behind again to check that it is still safe to go and then move to the left side of the lane. Scan ahead for oncoming traffic. If there is enough of a gap between you and the other traffic, signal your turn again, then execute the turn.
- Ask children to stop at the edge of the street and driveway to check for approaching vehicles, then signal a LEFT turn. All children will make a left turn out of the driveway, ride around the loop one time then signal and turn LEFT into their original driveway.
- Have children exit their respective driveway when there is an appropriate gap in traffic.
- If time permits, have children turn around in the driveway and re-enter the roadway with a left turn to complete another loop, after checking for vehicles and pedestrians.
- Praise, review and remediate as necessary.

Rider's Choice Opportunity

- With children in groups positioned at each driveway, have them enter the street, after checking for pedestrians and vehicles, turning left or right as they choose.

5. Riding the Loop and Signaling Turns

Introduce a stop sign and a hazard into the main loop of the **Driveways Course** as children are riding. Remind children that if they must move left to go around a hazard, they should scan behind their shoulder for traffic. Tell children to signal a slow/stop before coming to a complete stop at the stop sign.

- Instruct children to ride the loop as they scan and react to traffic signs and hazards.
- Have children vary left and right turns into and out of the driveway.
- Periodically change the location of the hazard.

Challenge Opportunity: Tape a set of railroad tracks at an angle across one portion of the roadway. Remind children to always cross railroad tracks at a 90-degree angle (to avoid catching their wheels or sliding on the rails) or walk their bikes across the tracks.

Review (optional)

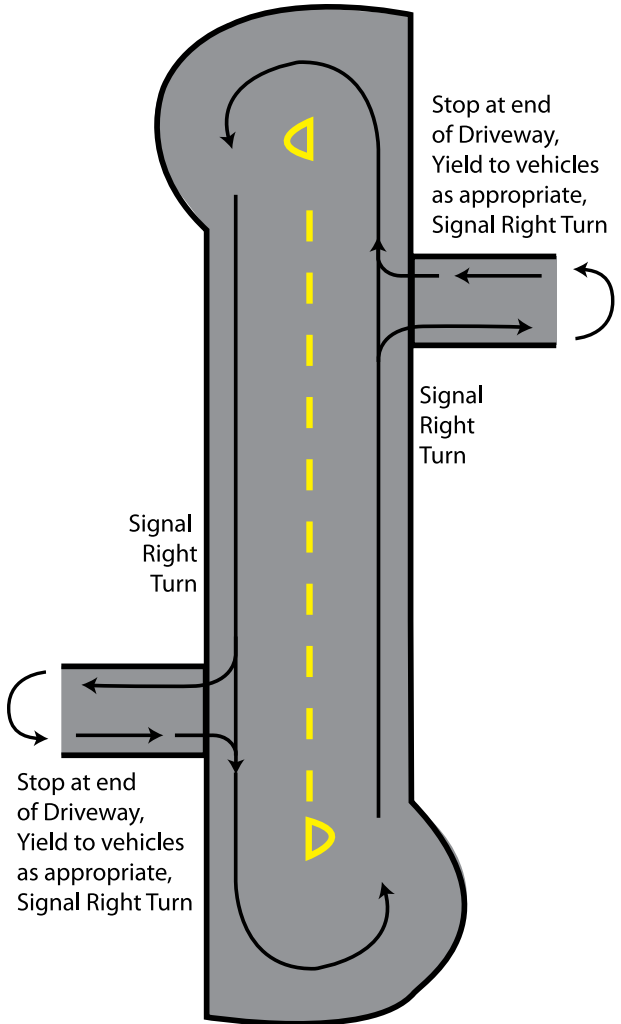
To reinforce safety concepts, the instructor should review these topics by posing questions related to each skill:

- **Riding on the right** — Where on the street should cyclists ride? Which side is the wrong side to ride on?

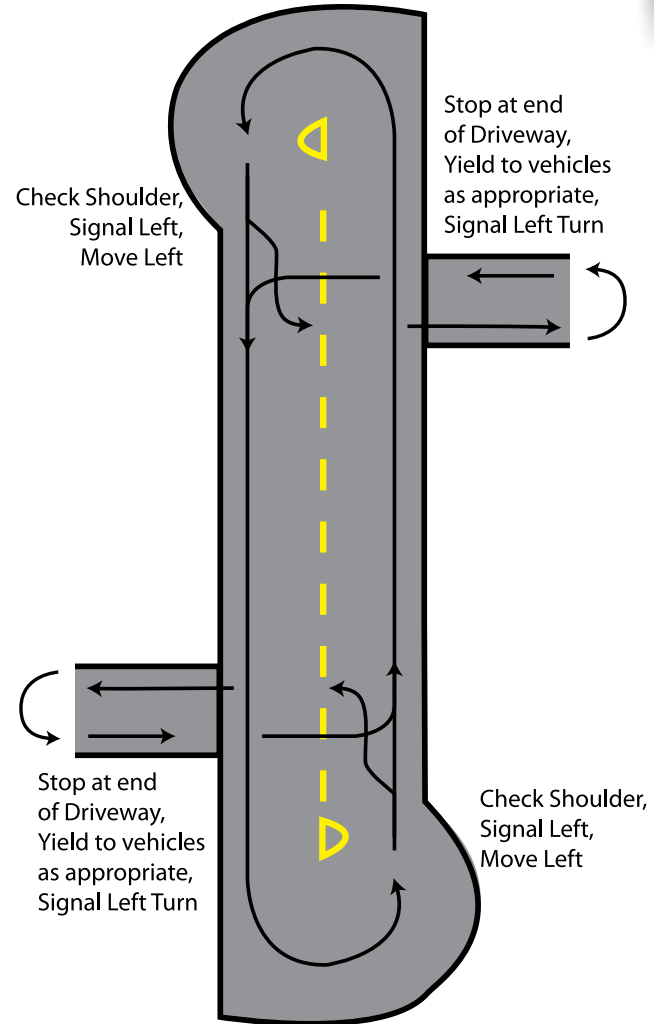
- **Communicating with others** — How should cyclists communicate with pedestrians? How should cyclists communicate with other vehicle operators?
- **Hazard identification and response** — What are two hazards cyclists should be alert for? What's the best way to avoid a hazard?
- **Right and left turns** — What signals should cyclists give for turns? What hazards should cyclists be alert for when turning right? What hazards should cyclists be alert for when turning left?
- **Entering and exiting the roadway with right and left turns** — What should cyclists be alert for when entering the street from a driveway? What should cyclists be alert for when exiting the street into a driveway?

At the end of the Lesson 4, transfer skills assessments to ***Child Assessment – Intermediate Skills Checklist for Grades 4-5 (Individual)*** for children to take home and have signed by a parent/guardian.

Driveways Course Activities



3. Entering and Exiting Driveways using Right Turns



4. Entering and Exiting Driveways using Left Turns



Suggestions for a Balanced Curriculum

Grades
4-5
Lesson 4

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These optional activities are included to extend the lesson into other areas of learning. Most activities presented may be completed within a 20-minute time period, or may be assigned as homework opportunities.

Social Studies

Have children research the historical role of the bicycle in transportation, from a state or national perspective depending on grade-level. Research can be done individually or in teams, using interviews with older family members, library resources, and the Internet.

Although not exhaustive, here are several examples of topics that relate to history and bicycling that children can choose from:

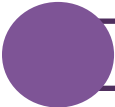
- Bicycles and Women's Suffrage,
- Bicycles during War,
- U.S. Bicycle Route System,
- Good Roads Movement,
- Bicycle-Friendly Cities,
- NC Bicycle Route System, and
- Decline of bicycling in the United States.

English Language Arts / Healthful Living

Children can work in small groups (2-3 children each) to develop a two-to-three minute Public Service Announcement (PSA) to promote bicycling. Children may be allowed to use technology, if available.

Children should explain how having a lifestyle that includes bicycling benefits their health, including ways that it can help to relieve stress.

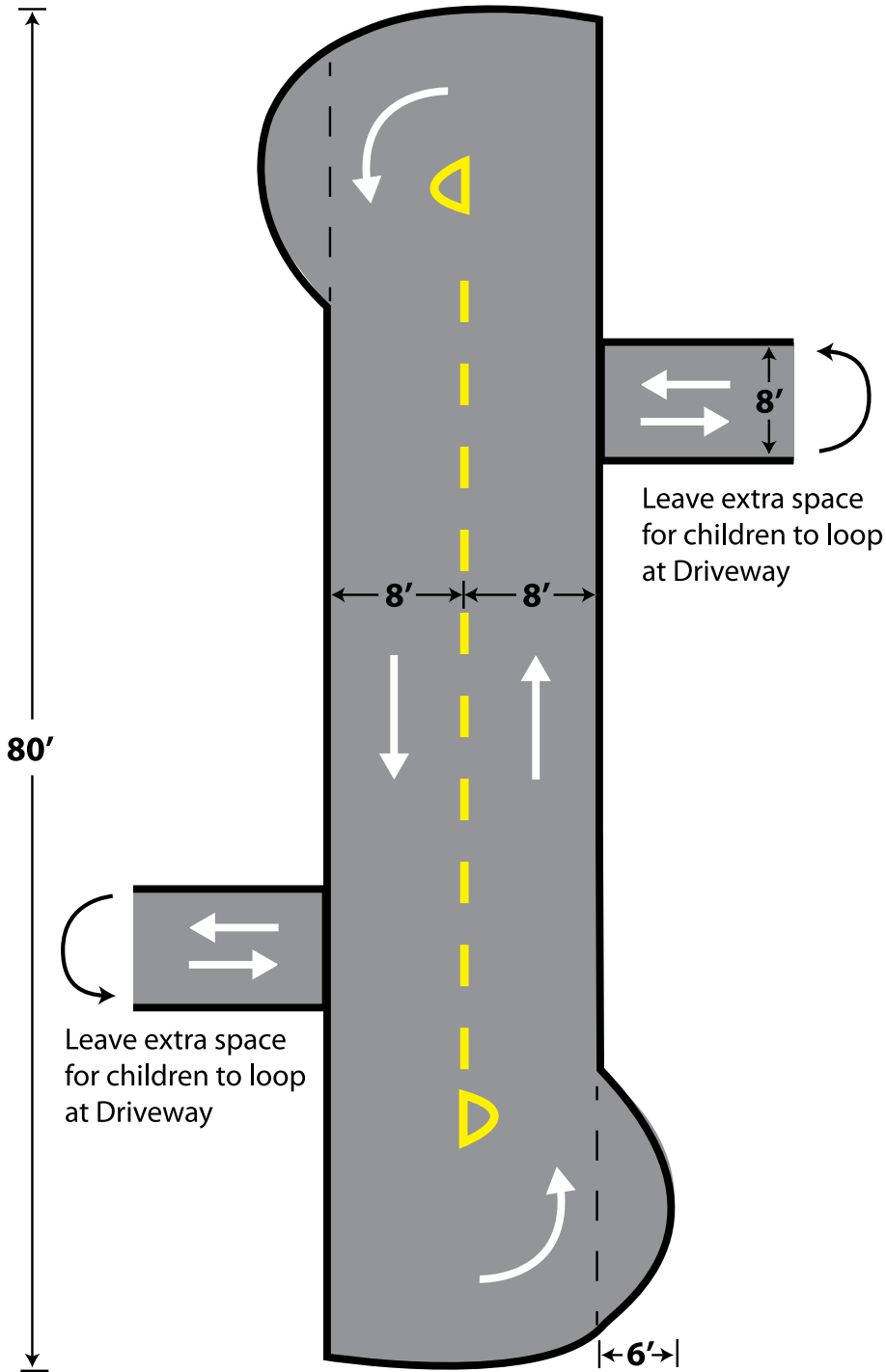
PSA's can be recorded and broadcast on the school's morning announcements or presented to children in younger grades. **Video submissions of PSA performances to the NC Safe Routes to School Program are encouraged!**



Set Up Diagram

Driveways Course

Use this diagram to set up your skills course for Lesson 4.





Parent/Caregiver Tip Sheet

Dear Parent or Guardian:

Today your child participated in a bicycle skills training course and learned to do the following skills:

- Identify correct direction of travel on a roadway.
- Enter and exit a driveway safely.
- Make left and right turns after using appropriate signals.
- Predict movement of and safely interact with other bicyclists.
- Identify high-risk situations in a simulated traffic environment and respond appropriately without conflict with other bicyclists.
- Communicate with other bicyclists in a simulated traffic environment by using cooperation techniques such as eye contact and hand signals.
- Ride predictably in a straight line using hand signals and “reading” communication from others, such as hand signals, eye contact, and yielding.



The checklist (enclosed or on back of the letter) indicates which skills your child performed well and which skills need additional practice. Please discuss these skills with your child and then sign and date the checklist so the child can return it to the teacher.

PRACTICE AT HOME!

You can help your child continue to develop these skills in a safe area near your home. Ask your child to demonstrate each of the skills listed above. Encourage your child to continue practicing the weaker skills to become proficient. The better your child does on the following skills, the more ready he/she will be to learn more advanced skills for riding a bicycle.

Better yet, ride together as a family so you can model appropriate cycling behavior for your child.

Happy cycling!



Class Child Assessment

Intermediate Skills Checklist for Grades 4-5

At the end of Lesson 4, children should be able to do the following successfully. Use the following scoring symbols to indicate their level of achievement:

Good +

Satisfactory ✓

Needs more work —

Child Name	Rides in a straight line in the correct lane position	Stops and scans for traffic before entering roadway	Follows others at an appropriate distance	Yields to others as appropriate	Scans behind before turning or merging left	Uses appropriate nonverbal communication	Scans and reacts appropriately to hazards



Name _____

Child Assessment

Intermediate Skills Checklist for Grades 4-5

Parent/Guardian: Please sign this report below and have your child return it to the instructor.

During the Basics of Bicycling course, your child worked on the bicycle skills shown below to help prepare him or her to bicycle safely in traffic. The following scoring symbols indicate your child's level of achievement:

- Good **+**
- Satisfactory **✓**
- Needs more work **—**

Please encourage your child to continue working on these skills to master them.

Rides in a straight line in the correct lane position	Stops and scans for traffic before entering roadway	Follows others at an appropriate distance	Yields to others as appropriate	Scans behind before turning or merging left	Uses appropriate nonverbal communication	Scans and reacts appropriately to hazards

Comments:

Signature of parent/guardian

Date