



Bike Control



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.

Lesson Objectives

The objective of this introductory lesson is to teach children balance and control on a simplified bicycle. Practicing these skills will develop balance and strength, core abilities need to ride a bike safely. Teaching basic skills for riding can ready them for big adventures when they graduate to riding a real bike for the first time. At this age, it is important to emphasize that children should not practice in traffic, but they are gaining important skills so that one day they may become independent bicyclists.

Child bicyclist safety tips

Before you let a child ride a bicycle unsupervised, on the street, on paths, or on sidewalks that intersect with streets, make sure that they meet the following criteria:

- The child can balance and look over his or her left shoulder for traffic from behind and keep the bike going straight.
- The child has completed on-bicycle instruction in basic traffic skills.
- The child has developed judgment skills to decide how to interact with all other road users.
- The child has developed perceptual ability to see, hear, and understand signs and signals, and react correctly to traffic.

Most children cannot meet all of the above criteria until 3rd or 4th grade, or older. Adult supervision is essential for all children until they do. A wise parent or teacher should check frequently to make sure the child follows good safety practices and parental bicycling rules.

- Young children just learning to ride on a sidewalk or pathway should be closely supervised by an adult. Sidewalks may often be blocked by trees, shrubs, or other objects, making it difficult to see traffic. Sidewalks often cross more shared traffic areas, such as driveways and intersections, than streets or roads. As soon as basic traffic skills are mastered, a bicyclist should ride on the street, not the sidewalk.
- Parents who ride bicycles should model good safety practices. Always wear your helmet and replace your helmet or your child's any time it is involved in a crash. The small cost of buying or replacing a helmet can prevent the need for an emergency room visit or hospital stay.

The children will be able to:

- Demonstrate how to wear a helmet.
- Scoot and balance on two wheels.
- Propel themselves to glide straight ahead.
- Start and stop wheeled equipment.

Why This Lesson is Important

Bicycling is an important skill for children to learn because it will give them the ability to choose healthy, active transportation options into adulthood. This lesson covers basic bike control and develops balance, which is fundamental in learning to ride a bicycle. Teaching kids how to ride a bike early on encourages physical fitness, awareness of their surroundings and an understanding of their environment that they won't get in a car.

Essential Standards

<p>PE.K.PR.4.1: Use basic strategies and concepts for working cooperatively in group settings.</p> <p>PE.K.PR.4.3: Use safe practices when engaging in physical education activities.</p> <p>PE.K.MC.2.3: Use teacher feedback to improve basic motor performance.</p> <p>K.PCH.2.1: Recognize the meanings of traffic signs and signals.</p> <p>K.PCH.2.4: Identify appropriate responses to signs, sounds, and labels.</p> <p>PE.K.HF.3.2: Identify opportunities for increased physical activity.</p> <p>K.NPA.1.3: Recall activities for fitness and recreation during out-of-school hours</p> <p>K.PR.4: Use behavioral strategies that are responsible and enhance respect of self and others and value activity</p> <p>K.C.2.1: Use dramatic play to improvise stories and situations.</p>	<p>PE.1.PR.4.1: Use basic strategies and concepts for working cooperatively in group settings.</p> <p>PE.1.PR.4.3: Use safe practices when engaging in physical education activities.</p> <p>PE.1.MC.2.1: Use movement and manipulative skills involving equipment.</p> <p>PE.1.HF.3.2: Select physical activities based on one's interests and physical development.</p> <p>1.PR.4: Use behavioral strategies that are responsible and enhance respect of self and others and value activity</p> <p>1.NPA.3.1: Recognize the benefits of physical activity.</p> <p>1.NPA.3.2: Recall activities for fitness and recreation during out of school hours.</p> <p>1.C.2: Use improvisation to communicate activities in a variety of situations.</p>
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Common Core

<p>CCSS.Math.Content.K.G.A.2: Correctly name shapes regardless of their orientations or overall size.</p> <p>CCSS.Math.Content.K.G.B.5: Model shapes in the world by building shapes from components (e.g., sticks and clay balls) and drawing shapes.</p> <p>CCSS.ELA-Literacy.L.K.6: Use words and phrases acquired through conversations, reading and being read to, and responding to texts.</p>	<p>CCSS.Math.Content.K.G.A.1: Compose two-dimensional shapes (rectangles, squares, trapezoids, triangles, half-circles, and quarter-circles) or three-dimensional shapes (cubes, right rectangular prisms, right circular cones, and right circular cylinders) to create a composite shape, and compose new shapes from the composite shape.</p> <p>CCSS.ELA-Literacy.L.1.6: Use words and phrases acquired through conversations, reading and being read to, and responding to texts, including using frequently occurring conjunctions to signal simple relationships</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>
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Skills Course Materials

- Balance bicycles
- Child-sized bicycles with pedals removed
- Bicycle helmets
- Extra helmet sizing pads of various thicknesses
- Surgical or painter's cap for each child (wear under helmet to keep it clean)
- Bicycle tools: A variety of hex keys (also called Allen wrenches, typically metric) and adjustable crescent wrenches for seat and handlebar adjustments; pedal wrench to remove pedals
- Bike pump
- Bike Control Course Set Up Diagram
- Masking Tape or Chalk for Skills Course
- Tape Measure
- Free-standing stop sign
- Whistle
- Bicycle Geometry Exercise
- Parent/Caregiver Tip Sheet
- Child Assessment – Beginner Skills Checklist (Class)
- Child Assessment – Beginner Skills Checklist (Individual)

Preparation

Before the class session:

Review the ***Let's Go Biking! Teaching The Skill Building Activities*** video which can be found in the For Instructors portion of the *Let's Go NC!* Interface.

Check general condition of helmets and bikes. Ensure enough time to fit helmets. This will go more quickly with knowledgeable volunteers assigned to this specific task.

Prepare bicycles based on class needs. Smaller children should use balance bicycles (no pedals) while taller ones may be able to use child-sized bicycles with the seats lowered and pedals taken off. Remove pedals from non-balance bikes and lower seats before the start of class.

Set up course according to Bike Control Layout diagram prior to classroom activity using masking tape. This course will be used for Lesson 5 only.

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 smooth surface without a steep slope.

Review and prepare the ***Beginner Skills Checklist for Grades K-1***. The checklist should be sent home after the Skill Building Activity along with the Parent/Guardian Tip Sheet included in this lesson.

An assistant is needed to conduct the optional turning skill at the end of the "Ride in a Straight Line activity." In addition, it may be helpful to have volunteers on hand during class time to assist with preparing bicycles and helmets or conducting skill-building activities. Coordinate with assistants in advance.

Lesson 5 – Demonstration and Skill Building Activity



► **Time:** (30-45 minutes)

1. **Helmet Fitting**
2. **Bike Fitting**
3. **Scoot and Balance**
4. **Ride in a Straight Line**
5. **Stop Quickly and Safely**

Introduction

Many young kids may not yet be able to ride a bike. This lesson gives children the opportunity to practice their bicycle handling skills in a safe environment away from traffic to master balance. All new skills require practice, and with each attempt they will be able to control the bike better. Beginners should start by propelling the bicycle with their feet while sitting on the seat, eventually kicking off to scoot and balance for longer and longer periods of time. Ultimately they will develop enough skill to propel themselves forward and have complete control of the bicycle while they are balancing with their feet off the ground.

Children with disabilities may have compromised balance and still be able to ride a 3-wheeled bicycle (trike). See the Instructor's Guide for more detailed information on working with children of all abilities.

Assess skills using the ***Child Assessment – Final Skills Checklist for Grades K-1 (Class)*** during the lesson.

1. Helmet Fitting

Help kids to fit helmets using their own or helmets or those that are borrowed as part of the course in preparation for the on-bike lessons to follow. If kids need to share helmets, use the surgical cap between fittings.

- Use the straps and sizing pads to get it to fit just right. The helmet should sit level on the head and cover the top of the forehead, so that you can put 2 fingers between your eyebrows and the helmet.
- Straps should be adjusted to fit snugly, but not tightly, forming a V under each ear. A helmet with loose straps can come off in a crash. With your helmet buckled, you should not be able to take it off, rock it from side to side or back and forth.

2. Bike Fitting

If there are not enough bikes for all of the children, have them take turns.

- Fit children to a balance bicycle or a child-sized bicycle with the pedals removed.
- Adjust the seat height so that the child can sit on the seat while allowing both feet to touch the ground.

3. Scoot and Balance

Maintaining balance is a big step in teaching a child to ride a bike. Getting a strong start is important to gaining balance quickly.

- Have children scoot along the side of the course on a flat surface with their feet on the ground to get a feel for how the bike leans and steers. This will help them to develop confidence on the bike. Have someone at the other end to help the kids turn around to come back to the start.
- Next, have them try kicking off with their feet and gliding with their feet off the ground. At first, they may only be able to steer themselves and balance for a few seconds, but with time and practice they will be able to keep their feet off the ground longer while still maintaining control of the bike while they glide. Finally, the child raises his/her feet off the ground while coasting on the bike. This indicates the child has mastered being able to balance on a moving bicycle.

Tip: If you have children who are using short, stuttering steps after their first try, have them observe children who are taking longer strides or gliding.

Tip: Instructors/volunteers can even help the children by giving them a gentle push to show how the bike will tend to stay up when it's moving forward. Instructors may need to let children who continue to use short, stuttering steps know that their feet are actually working as brakes, which bring the bike to a stop and eliminate the opportunity to balance it.

Tip: Balance is easier to keep when the rider is moving faster. If there is a gentle slope, it may be easier for them to balance on the bike while moving downhill.

4. Ride in a Straight Line

Once the children are able to balance, they should try riding in a straight line on the **Bike Control Course**. It's important for cyclists to be predictable (display vocabulary card) to others when they are riding. Explain why strength and balance are important to being able to control (display vocabulary card) a bicycle and why riding in a straight line is important. Riding in a straight line without swerving helps a child to develop control of the bicycle which is necessary before moving onto more advanced skills.

- Explain that children will be gliding down the course while trying to keep their wheels on the dashed line in the center. The objective is to ride within the solid lines which are 4 feet apart.
- Send children onto the course one at a time, leaving a few seconds between riders.
- Have them glide back and practice on the course a second time to demonstrate that they can ride in a straight line.
- Optional: Have a volunteer at the end of the course to instruct each child to turn either right or left after they have stopped at the stop sign. The children should turn the appropriate direction to practice steering and then glide back to the start.

5. Stop Quickly and Safely

Show children the Stop sign and review what it means. Explain the importance of stopping and reasons that they may need to stop. Place the Stop sign at the end of the course.

- As the children reach the Stop sign, have the volunteer yell, "Stop!" They must stop their bikes using their feet and/or hand brakes if they are available.
- Have each child practice stopping at the end of the course several times.

At the end of Lesson 5, transfer skills assessments to **Child Assessment – Final Skills Checklist for Grades K-1 (Individual)**. This assessment can be copied onto the back of the Parent/Caregiver Tip Sheet and sent home with the child.



Suggestions for a Balanced Curriculum

Grades
K-1
Lesson 5

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.

Mathematics

Give each child the **Bicycle Geometry Exercise** from the *Materials* section. Have children identify different geometric shapes that make up the bicycle frame using grade level appropriate concepts. Most bikes have 3 triangles, sometimes more. There are several circles on a bicycle frame, including the wheels, cassette and chain-ring. The frame of the tandem contains a parallelogram.

Can they count the shapes and name them all? One option is to have children dissect the bicycle using tracing paper to find all of the shapes.

Have children make a model of a bicycle by using shapes from components, using clay, or drawing the shapes.

English Language Arts / Arts Education

- Group children into pairs and assign each pair a behavior or skill related to bicycling safety. In each pair, one child should have the role of the bicyclist and the other the role of the Community Helper.
- Have kids create a skit where the bicyclist acts out the wrong way/unsafe action and the Community Helper stops the bicyclist and assists with giving advice on how to behave/act properly. In the skit, the Community Helper should explain why the bicyclist was behaving or acting in an unsafe manner, and the bicyclist should correct his/her action.
- Instruct each group to develop a short skit that informs the audience about the topic and demonstrates concepts in action.

Behavior/skill examples include:

- Wearing headphones
- Using hand signals
- Carrying items on handlebars
- Wearing a helmet
- Choosing the right clothing
- Stopping at driveways
- Asking an adult for permission
- Obeying stop sign/traffic signal
- Riding at night or in the rain
- Riding 2 on a bike (appropriate for a group of 3 children)

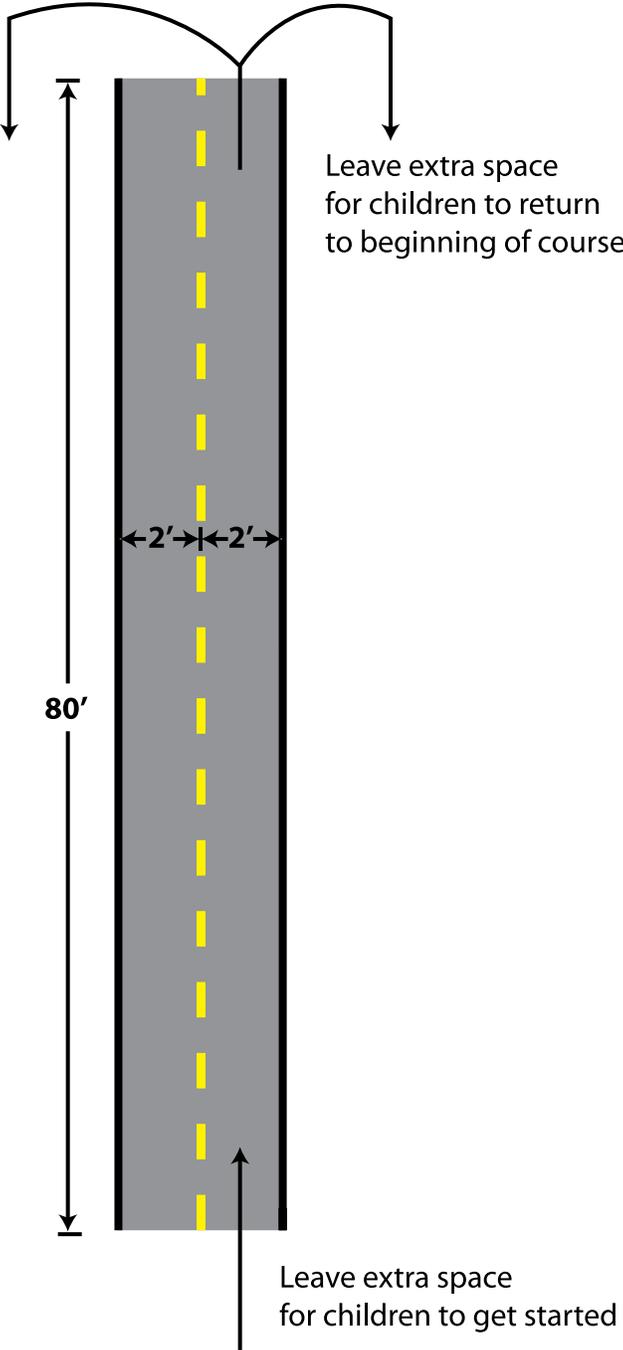
Video submissions of performances to the NC Safe Routes to School Program are encouraged!



Set Up Diagram

Bike Control Course

Use this diagram to set up your skills course for Lesson 5. If space and staffing permit, you can lay out a second course beside the first one so more children can participate at one time.



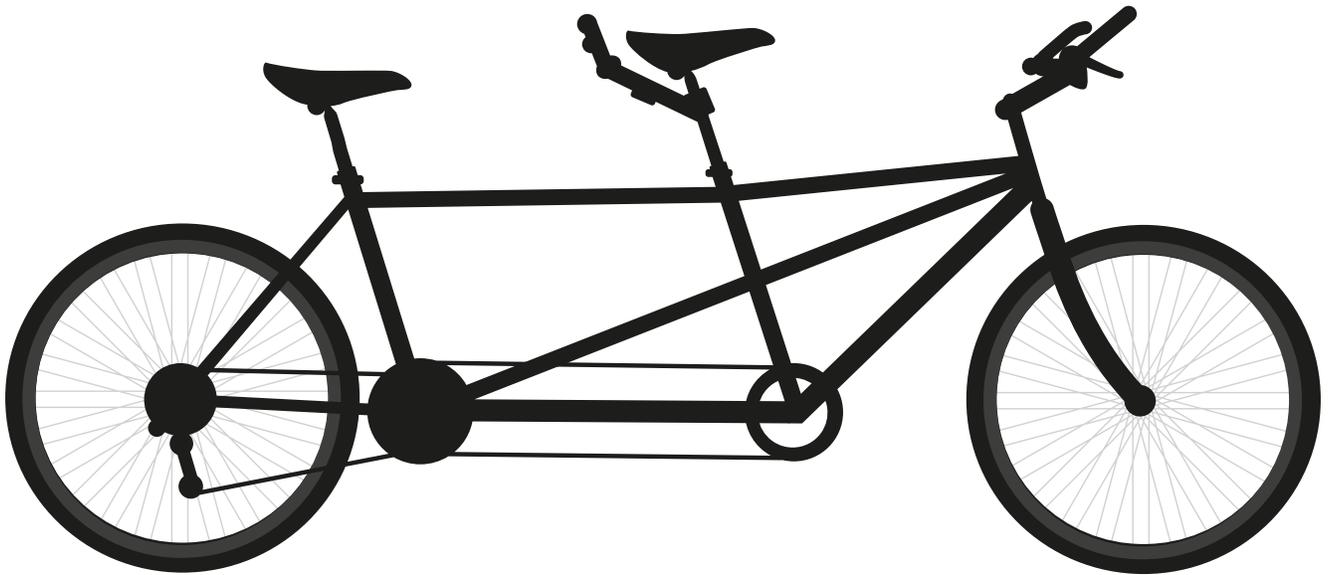
Let's Go Biking!



Name _____

Bicycle Geometry Exercise

Find the Geometric Shapes!



Tandem Bike



Bike Control

This week in school your child learned about strength, balance, and control by riding a simplified bicycle in a supervised, safe environment. After being fitted with a helmet, your child learned how to push off and scoot, working toward mastering balance of the bicycle by gliding in a straight line.

We discussed and practiced how to stop the bicycle. It's important at this age that children can stop safely because they will encounter situations, even under close supervision, where they must be able to perform this skill. You can help your child learn how to stop safely and quickly by having him or her ride in a straight line and stop quickly when you yell, "Stop!"

Remember:

Before you let your child ride a bicycle unsupervised, on the street, on paths, or on sidewalks that intersect with streets, make sure that they meet the following criteria:

- The child can balance and look over his or her left shoulder for traffic from behind and keep the bike going straight.
- The child has completed on-bicycle instruction in basic traffic skills.
- The child has developed judgment skills to decide how to interact with all other road users.
- The child has developed perceptual ability to see, hear, understand signs and signals, and reacts correctly to traffic.



Did you know?

Most children cannot meet all of the above criteria until 3rd or 4th grade, or older. Adult supervision is essential for all children until they do. A wise parent or teacher should check frequently to make sure the child follows good safety practices and parental bicycling rules.

Children in kindergarten and first grade:

- Are developing and increasing small muscle motor skills.
- Enjoy testing muscle strength and developing balance.
- Have difficulty staying focused on one task.
- Can begin to adopt and maintain a physically active lifestyle.

PRACTICE AT HOME!

Bike Control

Children ages 5-6 do not yet have the refined motor skills needed to ride a bike safely, but they are capable of learning body coordination skills for riding a bike. Their ability to balance is still in the developmental process.

Encourage your children to work on basic skills that will help as they learn to ride a bicycle by setting up a course in a safe level area. If your child is having difficulty riding a bicycle, the points below will help you instruct your child on how to develop balance and confidence. You should use a balance bicycle or take the pedals of a small child's bicycle and lower the seat to where your child can comfortably plant both feet on the ground.

- Start your child off by having him or her scoot along on a flat surface with feet on the ground to get a feel for how the bike feels as it leans and steers.
- Have your child try kicking off with their feet and gliding with their feet off the ground on the course you have laid out. At first, they may only be able to steer themselves and balance for a few seconds, but with time and practice they will be able to keep their feet off the ground longer while still maintaining control of the bike while they glide. Getting a strong start is important to gaining balance quickly. Your child will begin to master balance on the bicycle when he/she raises his/her feet off the ground while coasting on the bike.
- If your child is able to glide comfortably for longer distances, have him or her practice steering and stopping. Eventually your child will be ready for a bike with pedals and that's when the real fun starts!

Tips

If you have children who are using short, stuttering steps after their first try, have them spend a few minutes observing children who may already be taking longer strides or gliding.

Instructors/volunteers can even help the children by giving them a gentle push to show how the bike will tend to stay up when it's moving forward. Instructors may need to let children who continue to use short, stuttering steps know that their feet are actually working as brakes, which bring the bike to a stop and eliminate the opportunity to balance it.

Balance is easier to keep when the rider is moving faster. If there is a gentle slope, it may be easier for them to balance on the bike while moving downhill.





Name _____

Child Assessment

Beginner Skills Checklist for Grades K-1

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.

Child fitted with helmet (mandatory)	Can scoot and balance on the bicycle	Can glide with feet off the ground using long strides	Can glide consistently in a straight line without swerving	Uses feet or brakes to stop quickly and safely	Can steer the bike to the right or left without wobbling

Comments:

Signature of parent/guardian

Date