

LESSON 3: Before You Go



OVERVIEW

Educational Goal: Learn the parts of a bike and how to do an equipment safety check before riding.

Preparation

- Set up technology to view and listen to video from the Internet.

Topics covered

- Name That Part!
- “ABC Quick Check”

Learning Objectives and Minnesota Physical Education Standards (SEE PAGE VI FOR “STANDARDS”)

At the end of this lesson, students will be able to:

- 1 Demonstrate knowledge of the parts of a bicycle. (Standards 2 and 3)
- 2 Demonstrate knowledge of how to adjust a bicycle to fit personal needs. (Standards 2 and 3)
- 3 Demonstrate knowledge of the “ABC Quick Check” safety steps. (Standards 2 and 3)

LESSON 3

Timeline

	10 MINUTES Name That Part!	46
	15 MINUTES “ABC Quick Check”	47
	5 MINUTES Review	49

Materials and Equipment

- History of Bicycles: en.wikipedia.org/wiki/History_of_the_bicycle#Hybrid_and_commuter_bicycles
- Bicycle for demonstration
- Floor pump with gauge
- Bike Anatomy Quiz for each student (RESOURCE GUIDE PAGE 170)
- Pencil for each student
- Bike Anatomy Quiz answer sheet overhead for teacher (RESOURCE GUIDE PAGE 171)
- Computer, speakers, and projector with Internet connection, or Smartboard
- “ABC Quick Check” video: www.bikemn.org/education/walk-bike-fun/supplemental-resources
- “ABC Quick Check” bookmark for each student or handout with checklist for an “ABC Quick Check”

(RESOURCE GUIDE PAGE 172)



NAME THAT PART!

Focus Point: Students will recognize the differences in bicycles through the generations and learn the parts of today's bicycle. Learning the parts of a bicycle will give students the know-how to check their bikes for safety and begin to know when it needs to be fixed.

Materials and Equipment

- (OPTIONAL) History of Bicycles:
https://en.wikipedia.org/wiki/History_of_the_bicycle#Hybrid_and_commuter_bicycle
- Bike Anatomy Quiz for each student (RESOURCE GUIDE PAGE 171)
- Bike Anatomy Quiz answer sheet overhead for teacher (RESOURCE GUIDE PAGE 170)
- Pencil for each student
- Computer and projector with Internet connection, or Smartboard and/or overhead projector

Preparation

- (OPTIONAL) Have technology to display Wikipedia website of history of bicycles.
- Make copies of Bike Anatomy Quiz.

Tips to Differentiated Learning

- Have a bicycle and large pieces of paper with bike parts labeled. Allow students to attached the name of the bike part to the bike while discussing "Bike Anatomy."
- It is important to make sure students understand that bikes come in all shapes and sizes, including three-wheel and hand operated.

Discussion

- 1 (OPTIONAL) Discuss the evolution of bicycles and how they have changed over the years.
 - *What changes do you see in the different bicycles?*
 - *Why do you think these changes were made?*

Activity

- 1 Ask the students:
 - *Why do you think it's important to learn the parts of a bicycle?*
 - > *Knowing the parts of your bicycle and making sure it fits and works is important to ensuring your bike is in good, safe riding condition. When you need to bring it to a bike shop for replacement parts or repairs, you can correctly tell them what seems to be the problem and they can understand your needs.*
- 2 Distribute the Bike Anatomy Quiz and a pencil to each student.
- 3 Instruct students to follow along and fill in the names of the parts as you identify the answers on the overhead projector or Smartboard. Match each corresponding number from the diagram of the bike to the name of that part in the box.
- 4 When finished with the Bike Anatomy Quiz, have students volunteer to point out the parts on a display bike as you randomly name parts.



“ABC QUICK CHECK”

Focus Point: Before each ride, checking a bicycle to make sure it’s safe to ride help can prevent a crash. Use the “ABC Quick Check” as an easy reminder for what to check before every bike ride. If your bike does not pass the “ABC Quick Check,” it needs repairs or service work.

Materials and Equipment

- Bicycle for display
- Floor pump with gauge
- “ABC Quick Check” video: www.bikemn.org/education/walk-bike-fun/supplemental-resources (three minutes)
- Computer, speakers, and projector with Internet connection, or Smartboard
- “ABC Quick Check” bookmark for each student (available from BikeMN) or handout with checklist for an “ABC Quick Check” (RESOURCE GUIDE PAGE 172)

Preparation

- Set up technology to view and listen to video from the Internet.

Tips to Differentiated Learning

- Provide students with visual or hearing impairments the proper equipment to view the video.
- Have on display adaptive bikes along with the standard two-wheel bike. Go through the ABC Quick Check on the adaptive bicycle as well.

Discussion

- 1 Have a bike for demonstration to help discuss proper bicycle fit. Stress to students:
 - *Before we head out for a ride on our bicycle, it is important to adjust our bicycle to fit us properly. Our seat must be at a height so that when we sit on our bike with the pedal in the down position, the knee is slightly bent, and the handlebars are aligned with the front wheel.*
- 2 Explain to students:
 - *The “ABC Quick Check” is a simple safety check completed before we ride our bike. The best way to ensure that the bike is safe is to use the “ABC Quick Check” habitually before each ride.*
- 3 Show the “ABC Quick Check” video: www.bikemn.org/education/walk-bike-fun/supplemental-resources. Turn on “Closed Captions” if available.
- 4 Demonstrate the “ABC Quick Check”:

A → STANDS FOR AIR

Check tire pressure: squeeze front and back tires. They should be firm, not soft or squishy. If a tire does not have the appropriate amount of air in it, it could damage the tire and you may get a flat or in a crash. Tires should be inflated to a rated pressure printed on the sidewall (pounds/square inch, or PSI) of the tire. Check for damage to the sidewalls and tread. Damage to the sidewall is common if the brakes are not adjusted properly. If the fabric of the tire shows below the surface, replace the tire immediately and do not go for a ride.

BIKE FUN! LESSON 3: Before You Go



"ABC QUICK CHECK"

(CONT.)

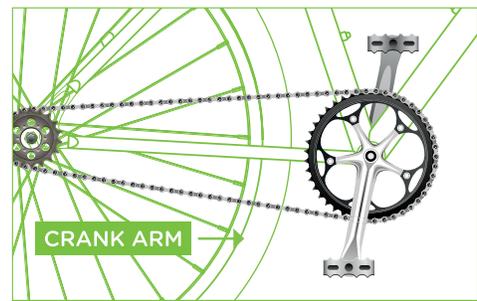
B → STANDS FOR BRAKES

Check the brakes. Squeeze the brake levers. There should be a finger width between the handle bar and brake lever. Hold down the brakes and try to move the bike back and forth. If it doesn't roll, you are good. Look closely at the brake pads. The brakes are positioned properly when the pads are parallel to and aligned with the side of the rim, not rubbing on the tire.

C → STANDS FOR CHAIN AND CRANK SET

Look at the chain—it shouldn't be rusty or orange but instead have a light coat of oil on it. Also, check that the chain fits snugly and is not kinked. If the chain appears too loose or drooping, it may need adjustment. Do not ride a bike with a loose chain.

Check the crank set. The crank set consists of the bottom bracket, crank arms, pedals and chain rings. Take the left and right crank arms in your hands and attempt to move them sideways. If both cranks move side to side, you have a problem. If only one moves, one crank arm is loose and must be tightened before riding the bike.



QUICK → STANDS FOR QUICK RELEASE OR BOLTS

The quick release (QR) lever is located on the hub and when closed, acts like a clamp to hold the wheel in place. Some bikes don't have a quick release but have nuts on each end that also should be tight. Before going on a ride, check the quick release or bolts to make sure they are tight enough to hold the wheel in place. If the QR lever leaves a slight imprint in our hand when you try and close it, it is tightened properly. When closed, the QR lever should not overlap the frame or fork, so it is accessible to open.

CHECK → STANDS FOR CHECK

Check the bike. Lift the bike a couple inches off the ground and carefully let it go while listening for any unusual rattles or sounds. Then ride the bike slowly for a short distance to check that the bike is working properly.

- 5 Ask the students:
 - Why is it important to do an "ABC Quick Check" before going on a ride?
 - > The "ABC Quick Check" is a great way to make sure your bike is in good working condition so you stay safe while riding. Make sure you check every time before you go out on a ride, to make sure the fit is right and all the parts work properly.
- 6 Distribute an "ABC Quick Check" bookmark or "ABC Quick Check" checklist to each student.



REVIEW

Review questions. (If short on time, ask when the students are lining up to transition to their next class.)

- *What does the **A** stand for?*
- *What does the **B** stand for?*
- *What does the **C** stand for?*
- *What does the **QUICK** stand for?*
- *What does the **CHECK** stand for?*