



BICYCLE SAFETY **4-WEEK CURRICULUM** **FOR IN-CLASS OR GOOGLE** **CLASSROOM ADAPTATION**



Created by: WALKSacramento

Bicycle Safety 4-Week Curriculum for In-class or Google Classroom Adaptation

This guide is intended to provide school educators, Safe Routes to School Champions, and after school program coordinators with a 4-week curriculum to educate students in the classroom or virtually about bicycle safety, the basics of bike handling and maintenance, trip planning, and how to identify and advocate for more bikeable communities. There are four themes, with a new theme proposed for each week:

- Week 1: Rules of the Road
- Week 2: Helmet Safety
- Week 3: Bike Care and Repair
- Week 4: Become a Bike Champion

The four themes can be used as a month-long curriculum or individually to suit your needs. Content in this guide has been developed specifically so that you can create your own Google Classroom course using the content provided or adapt for in-person learning. You can view and copy a template Google Classroom found here:

<https://classroom.google.com/c/Mzl3ODI4ODQ1NzU5?cjc=a4ez2ri>

If you are having trouble copying over the Google Classroom directly, please feel free to copy the content from this guide into your own Google Classroom.

This guide is primarily intended for students grades 4-12, however we have included bonus activities by grade level to engage students of all ages, including easy, creative activities for K-3rd graders and more advanced supplemental materials for older students. The assignments can be done by students individually from home or led by a teacher together as a class.

We hope you enjoy this guide. Please feel free to contact our Project Manager, Alicia Brown, abrown@walksacramento.org at any time for questions or support regarding the content in this guide.



Lesson Plan

Week 1: Rules of the Road

Summary

Objective: Students will learn the basics of bike safety, rules of the road, and bike handling.

Topic: Rules of the Road

Google Classroom Assignment 1: Bicycle Safer Journey

It's time to celebrate May Is Bike Month! This week, we are going to make sure that you're ready to ride by learning some bike safety tips and rules of the road.

Instructions:

1. Watch the Bicycle Safer Journey video, choosing the right video for your age group. Videos are available in English and Spanish.
2. Put your knowledge to the test. Take the quiz for your age group to see what you learned. Don't worry, this isn't for a grade. The quiz is available in English and Spanish. If you're in high school, complete the Reflection Form based on what you learned in the video.
3. Take a screenshot of your completed quiz and submit here for credit.

Links to Add to Google Classroom Assignment

- Bicycle Safer Journey: Ages 5 -9
 - a. Video in English: https://www.pedbikeinfo.org/bicyclesaferjourney/el_en.html
 - b. Video in Spanish: https://www.pedbikeinfo.org/bicyclesaferjourney/el_sp.html
 - c. Quiz in English: https://www.pedbikeinfo.org/bicyclesaferjourney/el_quiz_en.html
 - d. Quiz in Spanish: https://www.pedbikeinfo.org/bicyclesaferjourney/el_quiz_sp.html
- Bicycle Safer Journey: Ages 10 -14
 - a. Video in English: https://www.pedbikeinfo.org/bicyclesaferjourney/mi_en.html
 - b. Video in Spanish: https://www.pedbikeinfo.org/bicyclesaferjourney/mi_sp.html
 - c. Quiz in English: https://www.pedbikeinfo.org/bicyclesaferjourney/mi_quiz_en.html
 - d. Quiz in Spanish: https://www.pedbikeinfo.org/bicyclesaferjourney/mi_quiz_sp.html

- Bicycle Safer Journey: Ages 15-18
 - a. Video in English: https://www.pedbikeinfo.org/bicyclesaferjourney/hs_en.html
 - b. Video in Spanish: https://www.pedbikeinfo.org/bicyclesaferjourney/hs_sp.html
 - c. Bicycle Safer Journey Reflection Form: <https://docs.google.com/forms/d/1Ky3c9TxBQbY8q88nM0VSHMcSj-qTXmOsR5gjHbvUhl0/edit?usp=sharing>

Google Classroom Assignment 2: Let's Go Biking! Basics

Now that you've learned some basic bike safety tips, it's time to dive a bit deeper and learn more about how to safely ride in the street.

Instructions:

4. Watch the Let's Go Biking! Basics video to learn more about rules of the road while riding your bike.
5. Use your knowledge from Bicycle Safer Journey and Let's Go Biking! Basics to see if you can identify all of the unsafe biking hazards on the Bike Riding Hazards sheet.
6. Sign the Responsible Biking Pledge and submit here for credit.

Bonus Activities:

- K-3rd grade - Choose your favorite Bicycle Safety Coloring Sheet to decorate! Share your art with your family.
- 4th-8th grade - Test your knowledge of hand signals! Complete the Hand Signal Quiz worksheet to match each hand signal to its correct meaning.
- 9th-12th grade - Learn more about California bike laws and complete the Rules of the Road: Bike Laws worksheet.

Links to Add to Google Classroom Assignment

- Video: Let's Go Biking! Basics: <https://www.ncdot.gov/initiatives-policies/safety/lets-go-nc/Pages/bicycling-basics.aspx>
- Bike Riding Hazards: <https://drive.google.com/file/d/1SUoC7k7Kq6ZVchQUzi9MGfr8a5aRdPel/view?usp=sharing>
- Responsible Biking Pledge: https://sonomasaferroutes.org/sites/default/files/studentparentpledge_eng_sp.pdf
- Rules of the Ride: Hand Signals Factsheet: https://safekids.org/sites/default/files/wheeled_sports_rules_of_the_road.pdf

- Bicycle Safety Coloring Sheets:
<https://elementarysafety.com/colouring-section/coloring-bicycle-safety>
- Hand Signal Quiz:
<https://docs.google.com/forms/d/1JvRPmUn3gXKIsWrpRPmiSdqzGEpKWzVtOoPtLettIUU/edit?usp=sharing>
- Rules of the Road: Bike Laws Worksheet:
<https://docs.google.com/document/d/1TZ2bXSHt31J0eSb1h8LYFBpBEI6AtSMOleQQ6T9cTOA/edit?usp=sharing>

Lesson Plan

Week 2: Helmet Safety

Summary

Objective: Students will learn about the importance of wearing a helmet and how to make sure their helmet fits correctly.

Topic: Helmet Safety

Google Classroom Assignment:

Helmets are an incredibly important part of bike safety. This week we'll learn more about why wearing a helmet is so important and how to check that your helmet fits before you ride.

Instructions:

1. Watch the Ride Smart video to learn about the importance of wearing a helmet.
2. Watch the Safety in Seconds video to learn how to check if your helmet fits correctly.
3. Grab your helmet and do the helmet fit test! Does your helmet fit you? Fill out the Helmet Fit Checklist to make sure you have the right fit.
4. Take a picture of you wearing your properly-fitted helmet and submit here for credit.

Bonus Activities:

- K-3rd grade - Sign the Helmet Promise Pledge to commit to always wearing your helmet! Get your parent/guardian to sign too so that you always have a helmet that fits. As an extra bonus activity, show off your artwork and decorate the Helmet Coloring Sheet!
- 4th-8th grade - Watch the Helmet Safety - Cool Science Fair Project video to learn more about the "melon drop test". What do you expect will happen to the melon without a helmet? What about the melon wearing a helmet? After watching the video, what surprised you?
- 9th-12th grade - Test your knowledge and complete the Bicycle Helmet Function Worksheet.

Links to Add to Google Classroom Assignment

- Video: “Ride Smart”: <https://www.youtube.com/watch?v=PkVeKrk-WOE>
- Video: “Safety in Seconds”: <https://www.safekids.org/video/safety-seconds-bike-helmets>
- Helmet Fit PDF
 - English:
https://drive.google.com/file/d/1pV_a92xXOXfVf95kzRWEoQCnxj_0qtQY/view?usp=sharing
 - Spanish:
https://drive.google.com/file/d/1ZS5dztgdPwmdOydk_C7ZWm0KKjOdFIX5/view?usp=sharing
- Helmet Fit Checklist:
https://docs.google.com/document/d/1JbFhtggSYPA_709wE-G1D2YIWiq0BKNbPPYMNAhI878/edit?usp=sharing
- Helmet Promise Pledge: <https://www.nhtsa.gov/sites/nhtsa.dot.gov/files/pledge.pdf>
- Helmet Coloring Sheet:
<https://drive.google.com/file/d/10ZK5eQkcZOR1iDRd3BuofwJkLLdtLLJL/view?usp=sharing>
- Video: Helmet Safety - Cool Science Fair Project:
<https://www.youtube.com/watch?v=h7q723Rhuyk>
- Bicycle Helmet Function Worksheet (from the Bikeology guide):
<https://drive.google.com/file/d/1CXDSKhJAY7Pofzln6CinEmFuaeoy9ypS/view?usp=sharing>

Additional Resources

Demonstrating Bicycle Helmet Effectiveness: A How-to Guide - National Highway Traffic Safety Administration

This guide provides interactive lesson plans to demonstrate helmet effectiveness and the importance of wearing a helmet. Lessons include:

- Egg Drop Demonstration for grades K-3
- Melon Drop Demonstration for grades 4-8
- Hammer Demonstration for grades 7-12

<https://www.nhtsa.gov/sites/nhtsa.dot.gov/files/811110.pdf>

Lesson Plan

Week 3: Bike Care and Repair

Summary

Objective: Students will learn basic bike maintenance skills.

Topic: Bike Care and Repair

Google Classroom Assignment: ABC Quick Check

Before you bike, you should always check to make sure that your bike is safe to ride. Just like a car, the wheels and brakes of a bike should always be in good condition. This week we'll learn about the different pieces of a bike and how to check that all the pieces are safe and working correctly.

Instructions:

1. Watch the Bicycle for Children video to learn about the different parts of a bicycle. Afterwards, test your knowledge and complete the Bicycle Diagram Worksheet.
2. Watch the Basic Bike Check video to learn how to do an ABC Quick Check. After the video, you should be able to share what "ABC Quick Check" stands for!
3. Test your own bike! Use the ABC Quick Check checklist to see if your bike is safe to ride. Submit your completed checklist here for credit.
4. What happens if your bike needs a tune-up? Look up the address of your closest bike shop.

Bonus Activities:

- K-3rd grade - Do you know your ABCs? What about your bicycle ABCs? Use the Bicycle ABCs Coloring Sheets to learn more and share your artwork with your family!
- 4th-8th grade - Complete the Bike Safety Crossword Puzzle based on what you learned in this assignment.
- 9th-12th grade - Watch the video Presta vs Schrader Valves to learn the difference between valve types. Then, complete the Bike Tire Worksheet by taking a look at your

own bike tires to see what type of valve you have and the recommended pressure (PSI) for your wheels.

Links to Add to Google Classroom Assignment

- Video: Bicycle for Children: <https://www.youtube.com/watch?v=qAiWcybpIU4>
- ABC Quick Check Factsheet: <https://www.pedbikeinfo.org/bicyclesaferjourney/abcquickcheck.pdf>
- Bicycle Diagram Worksheet: https://alamedacountysr2s.org/wp-content/uploads/2020/10/BikeMobile_BikeDiagram_wi th_ABCQuickCheck_B.pdf
- Video: Basic Bike Check: <https://bikeleague.org/content/basic-bike-check>
- ABC Quick Check checklist: https://docs.google.com/document/d/1VMUmegSCW3s_TbyQD5M8HTwxlzlTWj-nWO4qWwnuplA/edit?usp=sharing
- Bicycle ABCs Coloring Sheets: <https://alamedacountysr2s.org/wp-content/uploads/2020/05/Bicycle-ABCs-Coloring-Sheet.pdf>
- Bicycle Safety Crossword Puzzle (from the Bikeology guide): <https://drive.google.com/file/d/1LFCDUcM9QZ9CJLenBZ5isLVgHhDF6kft/view?usp=sharing>
- Video: Presta vs Schrader Valves: <https://www.youtube.com/watch?v=10mJHEZH4mo>
- Bike Tire Worksheet: <https://docs.google.com/document/d/1i3JfEYhkvNIiZ-JNBA7EsJLr-FDUMt4rGIZ5BGleEw/edit?usp=sharing>

Google Classroom Assignment: Do It Yourself Bike Maintenance

So you've checked your bike before your ride using the ABC Quick Check, but what happens when you find out that something is wrong? What if your tire is flat or your brakes are too loose? In this assignment, you'll learn some basic tips for changing your own tire and adjusting your brakes.

Instructions:

1. Watch the videos: "How to Remove and Install a Bicycle Tire and Tube" and "How to Adjust Bike Brakes."

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2. Take the quiz to test your knowledge of bike maintenance basics. Don't worry, this isn't for a grade!

Links to Add to Google Classroom Assignment

- Video: How to Remove and Install a Bicycle Tire and Tube:
<https://www.youtube.com/watch?v=eqR6nlZNeU8>
- Video: How to Adjust Bike Brakes: <https://www.youtube.com/watch?v=hg6s596PPRY>
- Basic Bike Maintenance Quiz:
https://docs.google.com/forms/d/1PRjc9OHOf3hIU7-gcs_-7MPSpqgPFN7X4jZ3YvDBIM/edit?usp=sharing

Lesson Plan

Week 4: Become a Bike Champion

Summary

Objective: Students will make a map of a safe biking route to school or to another neighborhood destination. Afterwards, students will learn how to identify what makes their route safe or unsafe and how to become a bike advocate in their community.

Google Classroom Assignment 1: Mapping Your Route to School or Another Nearby Place

Now that you are on your way to becoming a safe and responsible bicyclist, it is time to start planning and practicing your route to school. If you live too far from school, you can choose another place you like to go to that is close enough to bike.

Planning and practicing your route will make you prepared to make the trip in the future!

Instructions:

1. View the Map Your Route Activity Google Instructions.
2. Follow the Instructions to create your map.
3. Take a screenshot of your final map and submit here for credit.

Links to Add to Google Classroom Assignment

- Map Your Route Activity Instructions:
<https://docs.google.com/presentation/d/18MuW5culv1h-spjrjcMvuykFMfKHllk8QUUp-bMBzg1Y/edit?usp=sharing>
- Map Your Route Example on Google My Maps:
<https://www.google.com/maps/d/edit?mid=1ktV06YTufAVqDWojTfh1QiQWrYL6tSdC&usp=sharing>

Google Classroom Assignment 2: How Bikeable is Your Community?

Over the past few weeks, you've learned a lot about how to be a safe bicyclist. But is your route safe for biking too? Sometimes, our streets don't have bike lanes on them, or there's too much traffic that makes biking feel unsafe. In the last assignment you created your own biking route to school or another destination, so now it's time to see what you like about your route and what might make biking challenging. We call this a Bike Audit! Bike Audits are tools to help us identify obstacles to biking and talk about ideas for improvements.

Instructions:

1. Follow the instructions in the Bike Friendly Community Assessment guide and complete the worksheet.
2. After the Bike Audit, read the list of things that you can do to improve your community's score (on pages 4 and 5 of the Bike Friendly Community Assessment). What are two things you and friends or family can do immediately to improve bike safety in your community? What are two things that you and your community can do in the longer term?
3. Complete one of the following activities:
 - a. Use the Letter Writing Template to write a letter to your City or County elected official to improve bike safety.
 - b. Add your findings to the UC Berkeley Street Stories Tool (take a screenshot of your report or download through the tool and submit to Google Classroom). Street Story is a community engagement tool where individuals can anonymously report collisions, near-misses, and places they feel safe or unsafe. You can share information on infrastructure (sidewalk and bike lane conditions) and information about actual occurrences. If you know someone or had a personal experience in a collision or near miss, you can report that too. This information helps us better understand what is happening on the street and how we can create safer, more sustainable streets. You can use Street Story to input your findings during your audit or afterward. All entries are anonymous.
 - i. Note: If you are 13 years of age or younger, your parents or guardian must enter information on the Street Story tool. If you are 13 years of age or older, you can enter your findings on your own Street Story tool.

The Walkability and Bikeability videos below also help explain how to do a walk audit and bike audit and how they can inspire community change.



Links to Add to Google Classroom Assignment

- Bike Friendly Community Assessment: https://drive.google.com/file/d/18AwoS_4Q09FfQl4NaRc9olicbUCMeWQf/view?usp=sharing
- Letter Writing Template: https://drive.google.com/file/d/1tbMTU2wO23GU3IPsrTtWf0m2nK_qSx9S/view?usp=sharing
- UC Berkeley Street Stories: <https://streetstory.berkeley.edu/>
- Walkability and Bikeability Audits: <https://ridewise.org/walkability-bikeability-audits/>

Additional Resources for Educators

While this guide focuses primarily on activities that can be done from home or in the classroom, practicing on a bike is one of the best ways to learn bike safety. Below are some additional resources that provide a mix of in-classroom and on-bike curricula. These resources are perfect for PE classes, bike clubs, and after school programs, but can be adapted into in-class lessons as well.

Bikeology Bicycle Safety Curriculum - SHAPE America

This guide is geared towards students in grades 6-12 and provides a series of on-bike assessments and activities that build and expand basic biking skills. It also includes a guide to educate parents on ways they can support safe biking habits for their child.

https://www.shapeamerica.org/publications/resources/teachingtools/qualitytype/bicycle_curriculum.aspx

Safe Routes to School On-Bike Curriculum Overview - Massachusetts Safe Routes to School

This guide provides a comprehensive curriculum for on-bike education, including beginner, intermediate, and advanced bike courses primarily for students in grades 4-8. The guide includes videos and diagrams for setting up practice courses for students.

<https://www.mass.gov/doc/on-bike-curriculum-designed-for-teachers-and-instructors/download>

Bicycle Safety/Skills Curriculum - Sonoma County Safe Routes to School

This guide includes a series of in-classroom and on-bike lesson plans for grades 4-5 and 5-8.

<https://sonomasaferoutes.org/content/bicycle-safetyskills-curriculum>

Bicycle Safety Activity Kit - National Highway Traffic Safety Administration

This website provides a list of activity sheets for children ages 4-7, along with more challenging activity sheets for children ages 8-11. These activities are perfect for sharing with families to supplement any of the lesson plans in this guide.

<https://one.nhtsa.gov/people/injury/pedbimot/bike/bskitboth/3152bskit/pages/section1/section1to c.html>