

BIKESMART VERMONT!

Critical Content, Concepts, and Skills for Bicycle Safety

In-Field Guide



A Curriculum Supplement

Developed by
Center for Health and Learning

in collaboration with **Local Motion**

SafeRoutes
Vermont Safe Routes to School



CENTER FOR
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Learning**



Center for Health and Learning, under funding from the Vermont Department of Transportation and the U.S. federal program called Safe Routes to School, has developed two curricula for safety education in walking and bicycling intended to be used in elementary and middle school classrooms. They are *WalkSmart-BikeSmart Vermont!* and *BikeSmart-OnBike Vermont!* As a result of pilot testing and implementation of the curricula, additional tools were created to assist safety educators in the classroom and in outdoor instructional environments to allow easy access to the key concepts, lessons and skill building exercises. This in-field guide is intended to supplement, and not replace the full curricula.

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If you have questions or comments about this material, or would like more information on other health and safety related learning for Vermont and beyond, please contact Center for Health and Learning at (802) 254-6590 or info@healthandlearning.org.

HELMETS & CLOTHES

STATION

A

Helmet Fit • Bright & Tight • Loads • Bright Bike • Be Alert • Melon Drop

NOTES

Time: 10-15 min
($\frac{1}{3}$ of class time)

Setup: ID area with hard surface (concrete is ideal); have helmet, melon, and other props ready

Props: New helmet for fitting; old helmet for dropping; melon; examples of bright vs. dark clothing; reflective vest; iPod w/headphones or cellphone; bike with lights

Notes & Tips: Build up to the melon drop, and make sure you get in all the key info before then. Once you drop the melon, that's all the kids will pay attention to.

1

Intro
Helmet
Fit

- ★ Go through the three essential things everybody should know about helmets:
 - a) **Helmets only work once.** If you get in a wreck or drop your helmet onto a hard surface, IT'S DONE and you have to replace it.
 - b) **Helmets don't last forever.** If your helmet is MORE THAN FIVE YEARS OLD, the styrofoam won't absorb impacts very well any more. There is a sticker inside that says what year the helmet was made.
 - c) **Helmets have to fit right to do their job.** There are THREE TRICKS for fitting your helmet properly, and that's what we're going to learn next.

2

Demo
Helmet
Fit

- ★ Demonstrate proper helmet fit using the "eyes, ears, mouth" technique, making it memorable with a goofy face:
 - a) **EYES:** Is your helmet low enough that you can see it on your forehead?
 - b) **EARS:** Do the straps form a nice, tight "Y" right under your ears?
 - c) **MOUTH:** When you open your mouth, do you feel the helmet pull down on your head?

HELMETS & CLOTHES *cont'd.*

STATION

A

Helmet Fit • *Bright & Tight* • *Loads* • Bright Bike • Be Alert • Melon Drop

NOTES

3

Demo Appropriate Clothing

- ★ Ask what kinds of clothes can make you safer when you're biking.
 - a) **Clothes that are BRIGHT.** Light colors and bright colors show up better, especially in low-light conditions.
 - b) **Clothes that are TIGHT.** If clothes are too loose and baggy, they can get caught in your chain.
- ★ Show examples of clothes and have kids rank them by their appropriateness for biking. If there is time, have kids line themselves up in order of "bright- and tight-ness." This will take some negotiation—let them work it out, as they will internalize the concept in the process.
- ★ Ask what else can help them be seen, especially when it's dark out. Show them a reflective vest and a blinky light. If you are giving out blinky lights, now would be a great time to put one on each kid's pack.
- ★ Demonstrate three options for "making" your clothes tight:
 - a) Fold and cuff your pants
 - b) Tuck your pants into your sock
 - c) Use a legband (preferably reflective!)

4

Discuss Carrying Loads

- ★ Mention to students the importance of carrying loads properly. Ask what could happen if they carry books under their arm. (They can't brake or steer effectively.) Ask what could happen if they carry a bag hanging off the handlebars. (It could get stuck in the spokes, which will send them flying over the handlebars.)
- ★ Ask what are safe ways to carry a load. (In a backpack or in a bike basket.)

HELMETS & CLOTHES *cont'd.*

STATION

A

Helmet Fit • Bright & Tight • Loads • *Bright Bike* • *Be Alert* • Melon Drop

NOTES

5

Demo Bike Lights

- ★ Ask the students to identify all the things on your bike that make it visible at night. Make sure they ID the reflectors as well as the lights.
- ★ Explain that it is always much safer to ride during the day, but that, if they are out at night, they should have a BRIGHT red flashing light on the back of their bike and a BRIGHT white light on the front.
- ★ Discuss where they can get reflective lights and (if in Chittenden County) hand out Local Motion coupons for \$6 off safety gear.

4

Discuss Traffic Noises

- ★ Set up a scenario for them: “You’re biking down the road. Bright and tight, got your blinky going. Doin’ it right—lit up like a Christmas tree so everybody can see you. Suddenly you hear tires on gravel. You look behind you, and see a car driving on the shoulder right towards you. What do you do?!?”
- ★ They will of course say, “GET OUT OF THE WAY!” You say, “Correct!” Then redo the scenario as if you were riding with headphones on, groovin’ like an iPod commercial. (Put on actual headphones if you have them, but pantomime works fine.) Narrate the whole thing again, but make it clear you don’t hear the noise—and don’t get out of the way.
- ★ Ask them what kinds of traffic noises they need to be listening for: oncoming cars, trucks beeping, people hollering “Look out!” As they continue to list things, play the idiot with the headphones and mime crashing your bike and getting hurt.

HELMETS & CLOTHES *cont'd.*

STATION

A

Helmet Fit • Bright & Tight • Loads • Bright Bike • Be Alert • *Melon Drop*

NOTES

5

Do Melon Drop

- ★ Ask the students to tell you the three key things about helmets from the beginning of the station (Helmets only work once, helmets don't last forever, and helmets have to fit right to do their job.)
- ★ Ask them, "Why all the fuss about helmets? What are they good for anyway?" You should get some sort of answer like, "THEY PROTECT YOUR BRAIN!"
- ★ Take out a melon. (Hard, underripe ones can be very difficult to get to break, so buy your melons a few days in advance to let them get good and ripe.) Tell them, "Let's say this is your head. What would happen if it hit the concrete?" They will say, "It'll go splat!" Lots of laughter at this point.
- ★ Then say, "What if we put your head... in a HELMET?" Strap the melon tightly into a helmet (use the opportunity to remind them of the importance of proper fit) and drop it from about chest height, helmet side down. The melon should be fine. Let the kids inspect it for bruising and cracks.
- ★ Then say, "So what if one day this melon just "forgot" to wear its helmet?" Take off the helmet and drop it again. With luck, it'll go SPLAT and all the seeds and juice will ooze out. 'Nuff said.
- ★ A few troubleshooting tips:
 - a) **If the melon does not break**, look for the spot where the melon hit the concrete. Cut it open to show them the bruising and damage inside.
 - b) **If the melon breaks when you drop it in the helmet**, play up the fact that the helmet was old and donated.

ABC QUICK CHECK

STATION

B

A for Air • B for Brakes • C for Chain • Quick Check • Wrap Up

NOTES

Time: 10-15 min
($\frac{1}{3}$ of class time)

Setup: Open area where you can demo all elements on a bike and all kids can see

Props: A bike that has a couple of things “wrong” with it: brakes too loose, chain rusty, tires very soft, and so on.

Notes & Tips: It’s best to use a kid-size bike for this station. Don’t use one with coaster brakes—they’re harder to demo, and fewer and fewer bikes have them.

1

**Demo
“A”
for Air**

- ★ Ask what important thing on the bike starts with “A.” Explain why too little air is uncomfortable and dangerous:
 - a) Bike handles poorly, doesn’t corner well
 - b) Tires more prone to blowouts (if you hit a pothole and the tube gets pinched against the rim)
- ★ Demonstrate how to squeeze the tire (push down on tread) to make sure it is firm.
- ★ Show how to inspect for cracked sidewalls and other signs of age.
- ★ Show where the pressure rating is on the tire and how to use a pump.

2

**Demo
“B” for
Brakes**

- ★ Then ask about “B.” Demonstrate what happens when brakes are too tight (they rub on the rims) or too loose (they don’t provide maximum stopping power).
- ★ Show how to do quick adjust of brakes using the threaded adjuster where the brake cables go into the brake lever housing.
- ★ Mention the importance of making sure the brakes aren’t rubbing on the tire itself (this can cause the tires to pop).

ABC QUICK CHECK *cont'd.*

STATION

B

A for Air • B for Brakes • *C for Chain* • *Quick Check* • Wrap Up

NOTES

3

**Demo
“C” for
Chain**

- ★ Then go to “C.” Ask how you know if your chain needs help:
 - a) Chain skips and/or doesn’t run smoothly when you pedal backwards
 - b) Chain is visibly rusty
 - c) Chain squeaks and/or is hard to pedal
- ★ Discuss why a rusty chain is a bad thing:
 - a) Makes you have to work harder to make your bike go
 - b) If the rust gets too bad, it can get to the point where it can’t be fixed and you have to replace it
- ★ Ask what should go on the chain — when they say “oil,” explain why oil is no good (dirt sticks to it).
- ★ Demonstrate how to apply lube and wipe off the excess.

4

**Demo
Quick
Check**

- ★ End with “Quick Check.” Discuss what to look for on their bike to ensure it is in good working order:
 - a) Seat should be at the right height, pointed straight forward and level, and firmly attached
 - b) Handlebars should not be loose
 - c) Quick releases should be closed
- ★ Demonstrate each item as you discuss it.

ABC QUICK CHECK *cont'd.*

STATION

B

A for Air • B for Brakes • C for Chain • Quick Check • *Wrap Up*

NOTES

4

**Demo
Entire
Check**

- ★ Run through all elements quickly to show them how fast the ABC Quick Check can be once you know it well.
- ★ Discuss the importance of caring for your bike. Ask what happens to your bike if you leave it out in the rain or toss it on the ground.
- ★ Ask how many of the students have a lock. Emphasize that, if they want to keep their bike, they really should have a lock.

RULES OF THE ROAD

STATION



You are a Vehicle • Ride Right • Road Signs • Hand Signals • Hazards

NOTES

Time: 10-15 min
($\frac{1}{3}$ of class time)

Setup: No particular setup

Props: None

Notes & Tips: The section on road hazards is optional as time allows.

1

**Explain
“You are a
Vehicle”**

- ★ In Vermont, bikes are considered “vehicles.” They have almost all of the same rights and responsibilities as other vehicles (i.e., cars).
- ★ Explain that this means they have a RIGHT to ride their bike on the road.
- ★ Then ask what are some of their responsibilities as vehicles:
 - a) Stop for stop signs
 - b) Signal turns
 - c) Use lights at night
- ★ Today they will learn some of the most important rules of the road.

2

**Discuss
Riding
Right**

- ★ One key rule is RIDE ON THE RIGHT—on the same side as traffic.
- ★ Why ride on the right? Two reasons:
 - a) Cars don’t expect riders to be coming towards them and are more likely to hit you
 - b) A head-on collision is much more dangerous because the speed of the collision is your speed PLUS the car’s speed

RULES OF THE ROAD *cont'd.*

STATION



You are a Vehicle • Ride Right • *Road Signs* • *Hand Signals* • Hazards

NOTES

3

**Discuss
Road
Signs**

- ★ Briefly show students a few of the most important road signs (stop, yield, ped crossing, etc.). Ask them what a bike rider should do at each. They will know the answers—the point is to reinforce the idea that these apply to bikes as well.
- ★ Ask them, if you are at a traffic light and there is also a pedestrian signal, which to you obey? Answer: the traffic light if you're riding your bike, and the ped signal if you're walking your bike.

4

**Demo
Hand
Signals**

- ★ Explain that hand signals are important because they tell cars what to expect. Bike riders are safer if cars know what they are about to do.
- ★ Demonstrate signals: left arm straight out for left turn, right arm straight out for right turn, and left arm cocked downward for slowing down. Have them call out what each signal is as you do it. Repeat in random order faster and faster for a minute or so.
- ★ Tell them that it is more important to stay in control than to signal, so if they, say, ride across a patch of sand and need to hold on, they should not signal.

5

**Practice
Hand
Signals**

- ★ Have all the students line up next to each other. Stand in front of them with your back to them. Demonstrate signals and call them out. All the students should follow along.
- ★ Then call out the signals without demonstrating them. Again, go faster and faster until they get all mixed up.

RULES OF THE ROAD *cont'd.*

STATION



You are a Vehicle • Ride Right • Road Signs • Hand Signals • *Hazards*

NOTES

6

Discuss Road Hazards

- ★ Ask them what a “hazard” is. Once they’ve got the basic idea, have them list major hazards they might encounter:
 - a) Sand
 - b) Puddles or ice
 - c) Broken glass
 - d) Storm drains (especially the kind with the long narrow openings)
 - e) Potholes
- ★ Describe the general approach for navigating hazards:
 - a) For sand, puddles, ice, or other **slippery** things, slow down and go straight across (steering can make you fall)
 - b) For broken glass, potholes, storm drains, or other **bumpy** things, slow down, look behind you, signal, and go around (or stop if there is a car behind you)
- ★ Another hazard is mean dogs. Don’t try to outrun them—get off your bike, put it between you and the dog, and yell at the dog to go away. Tell an adult about the dog when you get home.