

HeadSmart: Bike Helmet Safety

Overview

Task Context

This unit is designed to help teachers give students the knowledge and skills they need to address personal safety and prevent injury by wearing a bicycle helmet every time they ride.

Description

Students discuss risks associated with cycling and related sports (e.g., in-line skating, scootering and skateboarding) and the importance of protecting the brain by wearing a helmet. Demonstrations highlight the importance of wearing a bicycle helmet and its ability to protect the brain from trauma.

Expectations

Grade 2	Grade 3
2e60 • participate in group discussions, demonstrating a sense of when to speak, when to listen, and how much to say;	3e51 • listen to discussions and ask questions to clarify meaning;
2p3 • outline safety rules and safe practices;	3e63 • contribute ideas appropriate to the topic in group discussion and listen to the ideas of others;
2p11 • identify safety rules to be followed in the home, school, and community (e.g., electrical safety, schoolyard rules, bus safety);	3p3 • list safety procedures and practices in the home, school, and community
	3p10 • explain relevant safety procedures (e.g., fire drills, railway-crossing and crosswalk procedures);

Groupings

Students Working As Whole Class

Students Working Individually

Teaching / Learning Strategies

Discussion

Demonstration

Notes to Teacher

Biking is one of the most popular activities among young Canadians. Every year in Canada however, over 60 children will die in bike related crashes. Over 5,000 children will be seriously injured (Ontario Brain Injury Association). It is estimated that if all cyclists in Canada wore helmets, one death would be prevented each week. Wearing a properly fitted bike helmet can reduce your risk of serious head or brain injury by 88% (Safe Kids Canada Partner Guide, 2002).

The following materials will be needed:

- an approved bike helmet (all helmets should be approved by an approved standards organization such as CSA)
- a raw egg in a zip-lock sandwich bag
- a hard boiled egg in a zip-lock sandwich bag
- a hard boiled egg
- a Styrofoam egg shape with the center cut out to fit the hard boiled egg inside
- elastic bands

Teaching / Learning

Part One

1. Teachers ask students what is inside their heads.
2. Teachers explain how the skull protects the soft brain inside.
When the skull gets banged hard it can break just the same as other bones in the body can break. Then the brain gets hurt. Even if the skull does not break, a really hard bang to the head can cause the brain to shake around and that can also hurt.
3. Teachers ask students how they could protect the brain from getting hurt if they fall off a bike, scooter, etc. Identify a bike helmet as a necessary item to wear every time they ride a bike.
4. Teachers show students what an approved helmet looks like.
5. Teachers use the egg drop activities below to demonstrate the importance of wearing a helmet.

Egg Drop Activity #1

1. Teachers explain that the brain is like an egg inside the shell (skull).
2. Teachers ask students what they think will happen if a raw egg is dropped.
3. Teachers take the raw egg in the zip-lock bag and drop it.
4. Teachers ask students to share their observations.
5. Teachers take the hard boiled egg and drop it.
6. Teachers ask students to observe what was different and what was the same.
7. Teachers display both broken eggs and discuss how the egg cannot be put back together again...it is broken forever. In the same way, badly hurting the brain causes injuries that last your whole life.

Egg Drop Activity #2

1. Teachers take the second hard boiled egg and secure it with elastic bands inside the styrofoam egg.
2. Teachers ask students what they think will happen when the egg is dropped.
3. Teachers drop the egg and take the styrofoam apart to examine the condition of the egg.
4. Teachers discuss how an approved bicycle helmet could help people's heads when they fall off their bikes and bang their heads on the hard ground or sidewalk.

Reinforce with students that the only smart choice is to remember to wear a helmet every time they ride a bicycle.

Part Two

1. Teachers review the story of Humpty Dumpty with the children.
2. Teachers share a new Humpty Dumpty where Humpty makes smart choices. (story provided)

Part Three

1. Using the teacher information provided, teachers demonstrate the proper technique of wearing a helmet or invite a police officer to come to the class and do the demonstration.

Part Four

1. Teachers and students discuss bike helmet safety rules.

Rules should include:

- *wear a helmet every time you ride. It's the law!*
- *wear an approved helmet (e.g., CSA)*
- *make sure the helmet fits properly*
- *get a new helmet every five years*
- *get a new helmet after a crash*
- *never buy a used helmet*

2. Students record and illustrate one safety rule.

Home Connection

Information regarding proper fitting of a bike helmet is provided and could be sent home to parents/caregivers.

Resources

Humpty Dumpty Makes Smart Choices

Illustration Page

Teacher Information

- Quick Helmet Check: "Eyes, Ears and Mouth"
- Head Smart: Helmet Safety

Humpty Dumpty Makes Smart Choices

Humpty Dumpty looked at his bike
He said, "Going for a ride is what I'd like."
Before hopping on the seat. He had something to do.
It's a message he wanted to share with you.

If I fall, crack my shell and out come my yolk
That would certainly be no joke!
Humpty Dumpty thought smart and he said
"I'll only ride my bike with my helmet on my head."

Humpty's bike worked well and it fit
His feet touched the ground when he would sit.
Keep both hands on the handlebars was a smart choice he'd learned
Take them off only to signal, to stop or to turn.

Humpty knew that he needed to get off his bike and walk
When he reached an intersection, railway crossing or cross-walk.
He realized all these smart behaviours were what he had to do
If he was biking, skateboarding or in-line skating too.

Of course, Humpty knew that before he could ride
He needed an adult tight by his side
So he asked Mrs. Dumpty if she had the time to come along
She joined him in a minute and they went off singing this song.

Name: _____

This is a picture of me being safe on my bicycle.



The straps are even and form a “Y” under the earlobe (where the earlobe meets the head) and are snug against the head.

Quick Helmet Check: “Eyes, Ears and Mouth”

Use this easy 3-point check as a quick way to test for a proper helmet fit .



1. Eyes

Helmet sits level on your child's head and rests low on the forehead, 1 to 2 finger widths above the eyebrow. Your child should be able to see the very edge of her helmet looking up past her eyebrows. A helmet pushed up too high will not protect the face or head well in a fall or crash.

2. Ears

The straps are even and form a “Y” under the earlobe (where the earlobe meets the head) and are snug against the head.

3. Mouth

The buckled chin strap is loose enough so that your child can breathe. There should be enough room so you can insert a finger between the buckle and chin, but tight enough that if your child opens his mouth, you can feel the helmet pull down on top.

Make sure your helmet is approved by a standards organization such as CSA.

Head Smart: Bike Helmet Safety

WEARING A CERTIFIED BIKE HELMET CAN SAVE YOUR LIFE

Research shows that wearing a certified bike helmet can reduce the risk of serious head injury by up to 85 per cent. But all helmets are not created equal. Cyclists need to buy helmets specifically designed to reduce the risk of head injury.

Many jurisdictions have legislation requiring children, and sometimes adults, to wear a certified bicycle helmet. For instance, in Ontario, all bicycle riders under the age of 18 must wear a certified helmet. Provinces may also require bicycles to be equipped with either a horn, bell or gong, and all provinces require bikes to be equipped with front lights and rear reflectors if they are ridden between dusk and dawn.

What to look for in a bike helmet

Bicycle helmets come in a wide range of colours, styles and sizes to fit every head and budget. Most are well ventilated, comfortable and stylish. Here's what you should look for when shopping for a bicycle helmet.

Certification



Look for a certification mark. A helmet should bear the certification mark of a standards organization such as CSA.

Helmets should bear the manufacturer's identification, model number, size, and warning on limits of protection the helmet offers. As well, helmets must be labeled with instructions on how to ensure proper fit.



WRONG

Fit

Proper fit is essential for safety. Try helmets on before purchasing to make sure you pick one that fits snugly and is comfortable. Check for stability - when the straps and comfort pads are adjusted, the helmet should not move forward, backward or come off. It should sit level on the head and extend down to about two fingers (3 cm) above the eyebrows.



WRONG

Ventilation

Look for air vents that allow heat to escape, providing coolness and perspiration control.



RIGHT

Attachment System

Front and rear straps should meet just below each ear when tightly adjusted. The chin straps should be snug without pinching. Visors provide cyclists with additional protection from the sun and rain, etc.

Visibility

Brightly coloured helmets make the rider more visible in traffic. Reflective strips enhance visibility. Avoid dark-coloured or black helmets since they may be difficult for motorists to see, especially at night.

Replacement

Bicycle helmets are designed to crush on impact. They act as shock absorbers, protecting our heads by cushioning impact. So, replace a helmet after it has been involved in a crash. Normal wear and tear may also put dents in a helmet that are not visible but may decrease its safety.