road safety learning resources: teacher's manual

Grade 5

ICBC

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Acknowledgements

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Focus: See and be seen and be safe

The learning resources presented in this package are designed to support the new B.C. Provincial Curriculum, specifically targeting the Big Ideas and Learning Standards for Grade 5 Applied Skills and Technology, Arts Education, English Language Arts, Mathematics, Physical and Health Education, and Career Education. It consists of cross-curricular learning plans focusing on a growing understanding of the rationale behind road safety skills, and exercises to help build assertive communication strategies to prevent, and respond to, hazardous behaviours and scenarios. The resource can help students lead a safe lifestyle and empower them to make personally and socially responsible decisions.

The material is provided as an option for teachers to incorporate into their classrooms. Teachers may choose which units to present in their classes and which to omit. They may also decide that some activities would work better for their students, while other activities might not be of interest. In some cases, teachers may choose to incorporate only portions of a learning plan or activity.

First Peoples Principles of Learning

This Road Safety Learning Resource encompasses the First Peoples Principles of Learning. It aims to inspire youth to lead change for a safer community. It is delivered through experiential activities, involving youth in their learning by engaging them in discussions, deep critical thinking and storytelling. It aims to help them become aware of their responsibility in the school and community and empower them to make a difference.

Visit the Government of British Columbia for more information on incorporating the First Peoples Principles of Learning (FPPL) into classrooms and schools.

ICBC: Committed to saving lives

Whether it's learning how to safely cross the road, or understanding the rules of a four-way stop, road safety is important for all British Columbians. As part of the commitment of the Insurance Corporation of British Columbia (ICBC) to promoting a safe driving culture in B.C., we've developed this Road Safety Learning Resource to help you give children and young adults the tools they need to stay safe — now and in the future.

ICBC Goals

In support of the resource connections, ICBC goals are to:

- Increase awareness among young people of the hazards involved in being on the road, whether as a pedestrian, cyclist, car passenger or user of another mode of transportation
- Change young people's attitudes toward risky behaviour involving vehicles, making them less willing to engage in or support unnecessary risk-taking
- Encourage young people to recognize unsafe situations and assertively communicate their concerns to their peers and elders
- Improve and enrich this content so that it remains timely and relevant in your community. ICBC welcomes your questions, suggestions, and feedback at learningresourcefeedback@icbc.com

Resource Connections

Applied Design Skills and Technology

Big ideas: Skills are developed through practice, effort and action. The choice of technology and tools depends on the task.

Learning Standards

Curricular Competencies	Content
Students are expected to be able to do the following: **Applied Design** *Understanding context* • Gather information about or from potential users *Defining* • Choose a design opportunity • Identify key features or user requirements • Identify the main objective for the design and any constraints *Ideating* • Generate potential ideas and add to others' ideas • Screen ideas against the objective and constraints • Choose an idea to pursue *Prototyping* • Outline a general plan, identifying tools and materials • Construct a first version of the product, making changes to tools, materials and procedures as needed • Record iterations of prototyping	*Students are expected to use the learning standards for Curricular Competencies from Applied Design, Skills, and Technologies 4–5 in combination with grade-level content from other areas of learning in cross-curricular activities to develop foundational mindsets and skills in design thinking and making.*

Learning Standards (continued)

Curricular Competencies	Content
Testing • Test the product • Gather peer feedback and inspiration • Make changes and test again, repeating until satisfied with the product *Making* • Construct the final product, incorporating planned changes *Sharing* • Decide on how and with whom to share their product • Demonstrate their product and describe their process • Determine whether their product meets the objective and contributes to the individual, family, community and/or environment • Reflect on their design thinking and processes, and their ability to work effectively both as individuals and collaboratively in a group, including their ability to share and maintain a co-operative work space • Identify new design issues **Applied Skills** • Use materials, tools and technologies in a safe manner, and with an awareness of the safety of others, in both physical and digital environments • Identify the skills required for a task and develop those skills as needed **Applied Technologies** • Use familiar tools and technologies to extend their capabilities when completing a task • Choose appropriate technologies to use for specific tasks • Demonstrate a willingness to learn new technologies as needed	

Career Education

Big ideas: Exploring our strengths and abilities can help us identify our goals.

Learning Standards

Curricular Competencies	Content
Students are expected to be able to do the following: • Identify and appreciate their personal attributes, skills, interests and accomplishments, and their growth over time • Recognize the need for others who can support their learning and personal growth in the classroom • Use innovative thinking when solving problems • Set realistic short- and longer-term learning goals, define a path and monitor progress • Make connections between effective work habits and success • Demonstrate safe behaviours in a variety of environments • Question self and others about the role of technology in the changing workplace • Appreciate the influence of peer relationships, family and community on personal choices and goals	*Students are expected to know the following:* **Personal Development** • Goal-setting strategies • Problem-solving and decision-making strategies • Emergent leadership skills **Connections to Community** • Cultural and social awareness • Generational roles and responsibilities • Safety hazards and rules at school, at home, and in the community

Arts Education

Big ideas: People connect to others and share ideas through the arts. Engagement in the arts creates opportunities for inquiry through purposeful play.

Learning Standards

Curricular Competencies	Content
Students will be able to use creative processes for: *Exploring and creating* • Intentionally select artistic elements, processes, materials, movements, technologies, tools, techniques and environments to express meaning in their work • Create artistic works collaboratively and as an individual using ideas inspired by imagination, inquiry, experimentation and purposeful play • Explore connections to identity, place, culture and belonging through creative expression • Explore a range of cultures, and the relationships among cultures, societies and the arts *Reasoning and reflecting* • Observe, listen, describe, inquire and predict how artists (dancers, actors, musicians and visual artists) use processes, materials, movements, technologies, tools, techniques and environments to create and communicate • Develop and refine ideas, processes and technical skills in a variety of art forms to improve the quality of artistic creations • Reflect on creative processes as an individual and as a group, and make connections to other experiences • Connect knowledge and skills from other areas of learning in planning, creating, interpreting and analyzing works for art • Examine relationships between the arts and the wider world	*Students are expected to know the following:* • Elements and principles that together create meaning in the arts, including but not limited to: – Dance: body, space, dynamics, time, relationships, form and movement principles – Drama: character, time, place, plot, tension, mood and focus – Music: beat/pulse, metre, duration, rhythm, tempo, pitch, timbre, dynamics, form, texture – Visual arts: elements of design: line, shape, space, texture, colour, form, value; principles of design: balance, pattern, repetition, contrast, emphasis, rhythm, unity, harmony, variety

Learning Standards (continued)

Curricular Competencies	Content
Communicating and documenting • Adapt learned skills, understandings and processes for use in new contexts and for different purposes and audiences • Interpret and communicate ideas using symbols and elements to express meaning through the arts • Express, feelings, ideas and experiences through the arts • Experience, document and present creative works in a variety of ways • Demonstrate increasingly sophisticated application and/or engagement of curricular content	• Processes, materials, technologies, tools and techniques to support creative works • A variety of dramatic forms • Image development strategies • Symbolism and metaphor to explore ideas and perspective • Personal and collective responsibility associated with creating, experiencing or presenting in a safe learning environment

English Language Arts

Big ideas: Questioning what we hear, read and view contributes to our ability to be educated and engaged citizens. Exploring stories and other texts helps us understand ourselves and make connections to others and to the world.

Learning Standards

Curricular Competencies	Content
Using oral, written, visual and digital texts, students are expected individually and collaboratively to be able to: **Comprehend and connect (reading, listening, viewing)** • Access information and ideas from a variety of sources and from prior knowledge to build understanding • Use a variety of comprehension strategies before, during and after reading, listening or viewing to guide inquiry and deepen understanding of text • Synthesize ideas from a variety of sources to build understanding • Consider different purposes, audiences and perspectives in exploring texts • Apply a variety of thinking skills to gain meaning from texts • Identify how differences in context, perspectives and voice influence meaning in texts • Explain the role of language in personal, social and cultural identity • Use personal experience and knowledge to connect to text and develop understanding of self, community and world • Respond to text in personal and creative ways • Recognize how literary elements, techniques and devices enhance meaning in texts • Show an increasing understanding of the role of organization in meaning	*Students are expected to know the following:* **Story/text** • Forms, functions and genres of text • Text features • Literary elements • Literary devices • Perspective/point of view **Strategies and processes** • Reading strategies • Oral language strategies • Metacognitive strategies • Writing processes **Language features, structures and conventions** • Features of oral language • Paragraphing • Sentence structure and grammar • Conventions

Learning Standards (continued)

Curricular Competencies	Content
• Demonstrate awareness of the oral tradition in First Peoples' cultures and the purposes of First Peoples' texts • Identify how story in First Peoples' cultures connects people to land **Create and communicate (writing, speaking, representing)** • Exchange ideas and perspectives to build shared understanding • Use writing and design processes to plan, develop and create texts for a variety of purposes and audiences • Use language in creative and playful ways to develop style • Communicate in writing using paragraphs and applying conventions of Canadian spelling, grammar and punctuation • Develop and apply expanding word knowledge • Use oral storytelling processes • Transform ideas and information to create original texts	

Mathematics

Big ideas: Computational fluency and flexibility with numbers extend to operations with larger (multi-digit) numbers. Closed shapes have area and perimeter that can be described, measured and compared. Data represented in graphs can be used to show many-to-one correspondence.

Learning Standards

Curricular Competencies	Content
Students are expected to do the following: *Reasoning and analyzing* • Use reasoning to explore and make connections • Estimate reasonably • Use technology to explore mathematics • Model mathematics in contextualized experiences *Understanding and solving* • Develop, demonstrate and apply mathematical understanding through play, inquiry and problem-solving • Visualize to explore mathematical concepts • Develop and use multiple strategies to engage in problem-solving • Engage in problem-solving experiences that are connected to place, story, cultural practices and perspectives relevant to local First Peoples' communities, the local community and other cultures *Communicating and representing* • Communicate mathematical thinking in many ways • Use mathematical vocabulary and language to contribute to mathematical discussions • Explain and justify mathematical ideas and decisions • Represent mathematical ideas in concrete, pictorial and symbolic forms	*Students are expected to know the following:* • Number concepts to 1,000,000 • Addition and subtraction of whole numbers to 1,000,000 • Multiplication and division to three digits, including division with remainders • Addition and subtraction facts to 20 (extending computational fluency) • Multiplication and division facts to 100 (emerging computational fluency) • Rules for increasing and decreasing patterns with words, numbers, symbols and variables • One-step equations with variables • Area measurement of squares and rectangles

Learning Standards (continued)

Curricular Competencies	Content
Connecting and reflecting • Reflect on mathematical thinking • Connect mathematical concepts to each other and to other areas and personal interests	• Relationships between area and perimeter • One-to-one correspondence and many-to-one correspondence, using double bar graphs • Probability experiments, single events or outcomes

Physical and Health Education

Big ideas: Personal choices and social and environmental factors influence our health and well-being. Developing healthy relationships helps us feel connected, supported and valued.

Learning Standards

Curricular Competencies	Content
Students are expected to be able to do the following: **Physical literacy** • Develop and apply a variety of fundamental movement skills in a variety of physical activities and environments • Develop and apply a variety of movement concepts and strategies in different physical activities • Develop and demonstrate safety, fair play and leadership in physical activities **Healthy and active living** • Identify and describe opportunities for and potential challenges to participation in preferred types of physical activity at school, at home and in the community • Describe the impacts of personal choices on health and well-being • Identify, apply and reflect on strategies used to pursue personal healthy-living goals	*Students are expected to know the following:* • Proper technique for fundamental movement skills, including non-locomotor, locomotor and manipulative skills • Movement concepts and strategies • How to participate in different types of physical activities, including individual and dual activities, rhythmic activities and games • Benefits of physical activity and exercise

Learning Standards (continued)

Curricular Competencies	Content
Social and community health • Identify and describe strategies for avoiding and/or responding to potentially unsafe, abusive or exploitive situations • Describe and assess strategies for responding to discrimination, stereotyping and bullying • Describe and apply strategies for developing and maintaining healthy relationships • Describe and apply strategies that promote a safe and caring environment **Mental well-being** • Describe and assess strategies for promoting mental well-being, for self and others • Describe and assess strategies for managing problems related to mental well-being and substance use, for self and others • Explore and describe how personal identities adapt and change in different settings and situations	• Practices that promote health and well-being, including those that prevent communicable and non-communicable illnesses • Strategies to protect themselves and others from potential abuse, exploitation and harm in a variety of settings • Factors influencing use of psychoactive substances, and potential harms

unit 1
pedestrian safety

Determining prior knowledge

Time requirement

This learning plan will take one session to complete.

Inquiry question

Why do communities have rules? What are some rules that we have to follow in our community? What do I already know about hazards and potentially unsafe situations in relation to pedestrian safety?

Learning objectives

Students will:

- Determine what they already know about pedestrian safety
- Identify when and why they or someone they know has not followed a pedestrian safety rule
- Conduct a self-assessment/self-reflection

Materials and resources

- See how many crashes involving pedestrians are happening in B.C.

Reflect and connect

Why do communities have rules? What are some rules that we have to follow in our community? These rules can be for any situation and not only related to pedestrian safety. For example — children have to go to school, drivers aren't allowed to speed, and dogs must be kept on a leash in public places.

Question

- What pedestrian safety rules do they know?
- Who thinks that they are a safe pedestrian?
- What does it mean to be a safe pedestrian?

- Have you ever done something to help someone else be a safe pedestrian?
- How do you know when someone (including yourself) is not being a safe pedestrian?

Discuss the difference between "not knowing a road safety rule" versus "choosing not to follow a road safety rule" when it comes to pedestrian safety.

Explore

Explain that young people are often motivated by the short-term gain of impressing their friends over the longer-term concerns of health and safety. People often listen to music or use their mobile to talk or text while walking and crossing the street. These distractions interfere with a young person's ability to concentrate and hear traffic sounds that will alert them to potential hazards.

It is important to give the road full attention and take time to check traffic carefully before stepping out onto the road while crossing, especially when walking with friends. According to ICBC statistics, in 2017 there were 3,000 incidents involving pedestrians: 2,300 were injured and 42 were killed.

Experience

In the following exercise you will ask students to respond anonymously. You might wish to establish some ground rules:

- Respect the diversity of responses
- Do not judge the comments made
- Do not try and identify your classmate's comments (e.g., by comparing handwriting)

Question and Investigate

Hand out two slips of paper to each student. On the first slip of paper, ask students to write two or three incidents when they did not (or were tempted to not) follow a road safety rule within the past few weeks.

- Collect the notes, and record (or have a few students record) and number each of the road safety rules not followed on the board
- Keep these slips of paper (or a record of the list), as they will be used again at the end of the unit
- If there are very few rules not followed on the board, ask students to list a few other road safety rules that they may have seen other people ignore or disobey
- On the second slip of paper, have students write down all the numbers of the road safety rules not followed that apply to them
- Collect these papers and record the tally for each of the responses on the board

Experience

As a class, discuss the results:

- If there are very few rules not followed, congratulate the students on their safe road practices
- What do they believe is the reason for this good behaviour?
- Have they seen other students or adults not following road safety rules (without naming names)?
- If there are a lot of rules not followed, hold a short discussion about the rules that are most commonly not followed:
  - Do the students consider road safety rules to be:
    - Optional?
    - A matter of choice?
    - Something that they've outgrown?
  - Do they understand the risks of not following road safety rules?
- Encourage the students to talk about these rules and be sure to convey a sense of the seriousness of this discussion
- What are some of the factors that prompt people to not follow traffic safety rules?
- Are there circumstances that might get in the way of following pedestrian safety rules (e.g., running late for school, being called by a friend across the street and not crossing at a designated crosswalk)?

Go beyond

Invite your local police officer to discuss road safety rules and their importance.

Self-assessment/self-reflection

Have students write a short reflective writing piece about an experience where they or someone they know did not follow a road safety rule.

- Summarize the experience
- Why was the road safety rule not followed?
- Who made the decision?
- How did the experience make them feel?
- What were the possible consequences?
- What would they do differently next time?

Personal pledge

Time requirement

This learning plan will take one session to complete.

Inquiry question

How are my personal choices influenced by peer relationships, family and community?

Materials and resources

- *My personal pledge* activity sheet on page 23

Learning objectives

Students will:

- Recognize different types of spoken and unspoken pressure
- Name different types of spoken and unspoken pressure
- Demonstrate different types of spoken and unspoken pressure
- Name the feelings that spoken and unspoken pressure can generate
- Write a personal pledge to recognize and avoid negative peer pressure
- Conduct a self-assessment/self-reflection

Reflect and connect

Ask the students to provide examples of situations where one friend talks another friend into doing something positive (picking up garbage on the playground, playing with a new student, joining the soccer team). Then ask them to provide examples of situations where one friend talks another friend into doing something negative (bullying another student, cheating on a test, stealing from somebody).

Ensure the students understand that peers are friends or classmates who are about the same age, and that peer pressure is when friends or classmates try to influence the decisions of others. Explain that peers can influence others into making wise decisions (positive peer pressure) or poor decisions (negative peer pressure), as seen

in the examples above. Discuss with the class the desire that most people have to be liked and accepted by their peers; however, at some point they may be faced with the responsibility of refusing to engage in an activity that they know to be wrong (bullying, stealing, taking drugs, etc.).

Question and Investigate

What is peer pressure? Write the definition on a flip chart or board and then ask students to expand it by sharing their personal experiences.

Peer pressure:

- Social pressure from members of your group to accept certain beliefs or act in certain ways in order to be accepted
- Peer pressure is the powerful feeling of pressure from someone your own age that can push you toward making certain choices, good or bad
- Peer pressure can take a number of different forms, both spoken and unspoken, and can lead to risky, disapproved or personally unwanted behaviour

Watch and listen

Watch on YouTube: *The Knight and the Dragon* by Tomie DePaola (3:40 min.)

- Watch the video, stopping often to discuss what is going on in the story. Be sure to discuss what was expected of the dragon and the knight and the choices they made. Then emphasize that the dragon and the knight finally made their own choices and didn't give into the peer pressure. Then discuss the definition of peer pressure.

Question and Investigate

Write the following questions as column headers on the board. Ask students to brainstorm answers to each question. In the spirit of the subject (peer pressure), make it clear that all answers are acceptable — students are not allowed to laugh or make negative responses to others' answers.

- What evidence of peer pressure exists in this classroom? Possible answers might include the way kids dress, the kinds of backpacks or notebooks they carry, where kids sit, or hairstyles.
- How do kids communicate messages of peer pressure? Possible answers might include giggling, talking about other kids, using put-downs, ganging up on someone, starting rumours, leaving kids out or laughing at someone.

- How can peer pressure get kids into trouble? Possible answers might include by forcing kids to do something they shouldn't just to be accepted, by excluding kids who may have good things to contribute.
- When is peer pressure a good thing? Possible answers might include when it keeps kids out of trouble, when it encourages kids to participate in healthy activities or when it works toward unification, instead of divisiveness.

Summarize

Ask students to summarize peer pressure by completing the following sentences. Write the sentences and the students' answers on the board.

- Peer pressure is POSITIVE when...
  (Possible answers: it encourages kids to have healthy values, positive attitudes and actions, a spirit of supportive teamwork, etc.)
- Peer pressure is NEGATIVE when...
  (Possible answers: it encourages kids to get into trouble, have bad attitudes, alienate other kids, etc.)

Experience

- Have the students form groups of three or four to think of and discuss one positive and one negative example of peer pressure that they've experienced or witnessed within the past week; students may have personally experienced the pressure, seen pressure exerted on someone else, or even exerted pressure themselves
- Ask groups to write a few paragraphs describing each example — invite students to share their examples and discuss them
- Ask groups to discuss how they feel when they are peer-pressured (powerless, confused, scared, worried, angry, stupid, disrespected, etc.)
- Have students stay in their groups and create a skit dealing with how to handle peer pressure in a positive way; when students are finished writing their skits, have them perform the skits for the class and have a class discussion after each one
- Example:

  Scenario — The MP3 Player

  Characters:

  – Nicky — a girl who wants to fit in
  – Other girls, who are friends with each other and who all have MP3 players with earbuds
  – Nicky's mom

Setting:

- Walking partway to school

Action:

- Nicky's mom drops Nicky near the school crosswalk and reminds her to cross safely
- As Nicky is walking to the crosswalk, she sees a group of kids walking to the crosswalk listening to their MP3 players and sharing their earbuds and singing and dancing as they walk
- Nicky checks to make sure her mom has gone and then she takes out her MP3 player, puts in the earbuds, and sings loudly and skips across the crosswalk behind the girls

Personal values and choice

Explain to the class that a personal promise is a pledge. It is an agreement with yourself to accomplish something in which you believe strongly. Have students create their own personal promise or pledge to avoid negative peer pressure and make safe choices. Share personal pledges with a partner and discuss.

Activity sheet

My personal pledge

Name

Date

I can tell when I am being pressured to do something I don't want to do or that I know is wrong because I

When I feel that way, I use stop, think, go traffic light to consider my options because

If I need help from someone I

When I resist negative peer pressure and choose to do what I know is right, I feel

My personal policy against peer pressure is

Self-assessment/self-reflection

Have students write a short reflective writing piece about an experience where they were peer-pressured into doing something unsafe.

- Summarize the experience
- Who were they with?
- Where were they?
- How did the experience make them feel?
- What were the possible consequences?
- What would they do differently next time?

Go beyond

- Have the students perform the skits for younger students
- Have students keep a peer pressure activity journal; have them record situations where they have to make a choice and say no to peer pressure
- Liaise with the community, including the Indigenous community centre, to invite a local Elder and/or guest speaker to discuss the importance of role models

Making good choices

Time requirement

This learning plan will take one session to complete.

Inquiry question

How can stories convey important messages and teach a lesson? What is an important role of Elders? How does my personal experience and knowledge connect to text and to developing an understanding of self, community and the world?

Learning objectives

Students will:

- Choose a road safety rule(s) and compose an oral story that relays the safety message to the readers
- Conduct a personal assessment of how pedestrian safety is a part of their own experience
- Recognize the importance of the oral tradition in First Peoples' cultures and the purposes of First Peoples' texts
- Make a "talking stick" and use it to practise listening and communicating
- Recognize causes and consequences of events, decisions or developments (cause and consequence)
- Conduct a self-assessment/self-reflection

Materials and resources

- Cree Story: *The Granddaughter who was Eaten by a Big Fish* (6:15 min.)
- For each student, a six-inch wooden dowel, colourful ribbons, beads, feathers and some leather cord

Reflect and connect

Explain to the students how Elders are role models and are shown a special kind of respect because of their knowledge, wisdom and life experiences. The stories they tell bring life from the past to the present in a way that not only tells, but also teaches. A story that teaches or that conveys an important message is called a parable. One of the most well-known parables for children is the story of the boy who cried wolf. It is a message to children about the dangers of lying. Ask the student to listen carefully to the story and identify the message it is telling.

You may read the story to students, play the audio version or tell it from memory. Should you decide to tell the story, read it over a few times to get a general sense of the plot. Try a practice run of telling it out loud. The actual words of the story are not as important as the general concepts and characters.

Watch and Listen

Cree Story: The Granddaughter who was Eaten by a Big Fish (6:15 min.)

The Granddaughter who was Eaten by a Big Fish

You may read the story to students, play the audio version or tell it from memory. Should you decide to tell the story, read it over a few times to get a general sense of the plot. Try a practice run of telling it out loud. The actual words of the story are not as important as the general concepts and characters.

This is a story about Gookum (Cree word for "grandmother") and her mischievous granddaughter, Beulah. Beulah was a very curious little girl. She was always wandering off from the camp, looking for adventures. Gookum was always telling her to listen. One day, Gookum asked Beulah to get some water from the lake so she could make soup.

"Whatever you do, don't go swimming in the lake alone," said Gookum.

"Why not?" asked Beulah.

"Because there is a giant fish in that lake, and he will catch you and swallow you up if you swim too far."

"Eeeeeya, Gookum. I'm not afraid of a big fish."

So, Beulah went off to collect the water. Oh, it was a nice warm day. The sun shone brightly.

A squirrel chattered as she walked along the path.

"Go away, silly squirrel. I am busy."

A butterfly flew around the girl. She ran around in circles trying to catch the butterfly until it flew away. "I am really hot now," Beulah said to herself.

Finally, Beulah came to the lake. She went to the big rock where Gookum had showed her to stand to get water. She dipped her buckets in the lake. They filled up quickly. Those buckets were heavy now. She had to be very careful when she carried them to the shore, they were so heavy. With a cup, she scooped out the little sticks and leaves that floated on the top. She was ready to carry them back now.

Carrying the buckets made Beulah tired. She lay down next to the water, in a nice spot on a large flat rock. The sun shone on her. She was very hot, so she took off her shirt.

A blue jay landed in a tree next to the path.

The blue jay squawked at her.

"You noisy old bird. Stop disturbing me." The blue jay flew away.

Beulah decided to have a quick swim, just to cool off before she took the water back for Gookum. She removed all of her clothes and dived in.

The water was nice and cool. Beulah was a good swimmer. She decided she would swim out as far as she could. As she swam out, Beulah saw a huge silver flash in the water. It was a great big fish, and with one gulp, it swallowed her whole! Beulah found she was trapped in the stomach of the huge fish Gookum had warned her about.

"Oh no," she cried. "I should have listened to Gookum!"

Beulah had been gone a long time. Gookum thought that she had found an adventure and forgotten to get water. There was no point in worrying about her — there were chores to be done around camp. She cut wood and made dinner. When Beulah wasn't home by night, Gookum was worried, but she knew the little girl was able to take care of herself in the woods.

The next day, Beulah still was not back. Gookum needed food, so she gathered the fishing net and went down to the lake. She caught six fish. One was a huge creature that stretched as long as her arms and more. That big fish would feed a whole family for a week.

She started cutting up all the fish. When she finally got to the big fish, she slid the knife into the belly. Beulah jumped out, very much alive.

At first, Gookum was startled, but she quickly realized it was Beulah, who was covered head to toe in slimy, sticky fish innards.

She shook her head at Beulah, and began to laugh at her. "I told you, I told you not to swim in the lake." Beulah bowed her head and said nothing. She just went to the lake to clean off all the smelly fish slime.

Explore

- Why didn't Gookum want her granddaughter to swim in the lake?
- What was Beulah's reaction when she was told not to swim in the lake? Do you think that was the right way to act?
- Why did Beulah disobey Gookum? Do you think there may have been other ways for her to cool off without swimming in the lake?
- How did Gookum react when she discovered Beulah in the big fish? How do you think she felt?
- Do you think Beulah learned something? What did she learn?
- What did you learn?

Engage

In the story, Beulah is visited by three animals on her trip to the lake: a squirrel, a butterfly and a blue jay. Remind the class about Beulah's encounters with these three animals, and how she treated them. Now have the class imagine that the animals were trying to remind the girl of what Gookum had said.

What would the animals be trying to tell Beulah? For example, the blue jay may say, "Squawwwk... Gookum told you not to swim."

Optional activity — Create a Talking Stick

Students can do this activity in pairs, in groups or individually at home. Provide each student with a six-inch wooden dowel, colourful ribbons, beads, feathers and some leather cord. The students can wrap the ribbon around the dowel and use tape or glue to secure the ends. On one end of the dowel, tie the piece of leather cord, letting the ends hang down loose. Decorate the cord with beads and tie a knot to the end of the cord to keep the beads in place. Tape feathers to the ends of the leather cord, and to the other end of the talking stick. Keep finished talking sticks in an accessible spot to be used during class discussions and reading circles.

Experience — Speaking to communicate

Explain to students that a talking circle is used with some First Peoples to create a safe environment in which participants can share their point of view with others. It is an opportunity to learn to listen and respect the views of others. The intention is to open hearts to understand and connect with one another.

Have the students sit in a circle. The circle represents completeness. Place one of the talking sticks, or an alternative object (e.g., feather, rock) in the middle of the circle. Explain the rules:

- Everyone's contribution is equally important
- State what you feel or believe starting with 'I statements', e.g., 'I feel…'
- All comments must be addressed directly to the question or the issue, not to comments that another person has made
- When a person has the stick or talking object, it is their turn to share thoughts, without interruption, and others have the responsibility to listen
- The talking object is then passed to the next person in a clockwise direction
- If someone does not want to speak, they pass the talking object to the next person

Have students sit in a circle and give the talking object to a student who is comfortable speaking to a group. Ask that student to share a time when they made a good choice that contributed to their well-being, or to the well-being of others. When the first student finishes sharing, he or she passes the talking object to the student on the right. Tell students that anyone who doesn't want to speak can simply pass the talking object to the next person. Students should continue passing the talking object until each person has had a chance to speak.

Go beyond — role play

After the class has discussed what the animals might have been saying to Beulah, ask the students, in teams of four, to act out a skit exploring these encounters. Encourage the actors to take on characteristics of the animals they are portraying (granddaughter, squirrel, butterfly, blue jay).

Create a story to convey an important lesson

Have students choose a road safety rule and write a story about giving an important safety message to the readers. Follow the format of the story *The Granddaughter who was Eaten by a Big Fish*.

Story template:

- A mischievous child
- Elder who says not to do something
- Child asks why
- Elder explains rule

- Child does it anyway and suffers the consequences
- Elder saves child
- Child understands that rules must be followed for safety, and elders' experience should be listened to

Experience, collaborate, communicate

Pair and share. In pairs, tell one another their stories. Listen actively and ask questions.

Go beyond — because statements

Buddy with a Grade 1 or Grade 2 class and have students review pedestrian safety skills checklist on pages 32 and 33 with the younger students and explain why they should be followed. Each student with a younger buddy will review the rules as a question and then discuss and write a reason why it should be followed.

Activity sheet — Pedestrian safety skills

before crossing a street	
❑ seek to cross at a traffic light or a crosswalk	❑ obey all traffic signals
❑ never cross mid-block even if a friend calls to you to cross over	❑ always STOP, LOOK, LISTEN and LOOK AGAIN
❑ wait a step back from the curb	❑ look left, look right, look left again to double-check
❑ make eye contact with drivers and cyclists — and wait until they have stopped — before crossing	❑ wear bright / reflective clothes if walking in the evening or in the rain

while crossing	
❑ watch out for cars turning a corner, or entering and exiting a laneway	❑ while crossing, continue to look left, right and then left again to double-check for turning traffic
❑ make eye-contact with drivers before crossing to ensure they see you and they have stopped	❑ walk — don't turn — in a straight line
❑ remove headphones or put your phone conversation on hold	

when at a pedestrian-controlled crossing	
❑ don't assume that a walk signal or green light means that the cars will automatically stop	❑ don't walk until all traffic has stopped

Activity sheet — Pedestrian safety skills, continued

when crossing a multi-lane street	
❑ make eye-contact with drivers in EACH lane	❑ while crossing, check that drivers in EACH lane see you and have stopped before you step into that next lane
❑ don't assume all drivers are paying attention — just because one driver has stopped it is not a guarantee that all other drivers will stop too	

when crossing an intersection with a traffic circle	
❑ never take short cuts across a traffic circle	❑ do not walk diagonally across the centre

when walking along roads without sidewalks	
❑ walk on the left side of the road to see (and be seen by) traffic	❑ walk in a single file — don't fool around or shove
❑ stay safely away from trucks because truck drivers have limited visibility and trucks require extra space for turning	❑ walk a safe distance from the road away from the traffic
❑ be aware of ditches and other hazards	

when crossing railway tracks and crossings
❑ be cautious

See, be seen, be safe!

Time requirement

This learning plan will take one session to complete.

Inquiry question

Why is it important for a pedestrian to see and be seen? How can I protect myself and others from hazards and unsafe situations?

Learning objectives

Students will:

- Identify the importance of being seen and being safe as a pedestrian
- Identify the role of the pedestrian in being safe and being seen
- Identify technologies that have been developed to encourage safe road user behaviour and to keep people safe in the traffic environment
- Design a technology that could reduce pedestrian crashes

Materials and resources

- Wax paper
- *Pedestrian safety skills* activity sheet on pages 35 and 36
- *See and be seen* activity sheet on page 37

Reflect and connect

Introduce the dual components of see and be seen:

- See: When it comes to pedestrian safety, who and what does a pedestrian want to see, and who and what are they looking for?
- Be seen: When it comes to pedestrian safety, by whom does a pedestrian want to be seen?

Explore

- Arrange the students in small groups
- Post *Pedestrian safety skills* activity sheet on pages 35 and 36 on an overhead or distribute one copy to each group
- Distribute the *See and Be Seen* activity sheet on page 37 — one to each student
- Ask the groups to cut out each of the safety skills and arrange them into two columns based on whether the practice:
  - Increases a pedestrian's ability to see the traffic conditions and concerns around them, or
  - Positions a pedestrian to be better seen by other road users
- As a class, discuss the results. Are there any pedestrian safety practices that the students are having trouble classifying?

Activity sheet — Pedestrian safety skills

before crossing a street	
❑ seek to cross at a traffic light or a crosswalk	❑ obey all traffic signals
❑ never cross mid-block even if a friend calls to you to cross over	❑ always STOP, LOOK, LISTEN and LOOK AGAIN
❑ wait a step back from the curb	❑ look left, look right, look left again to double-check
❑ make eye contact with drivers and cyclists — and wait until they have stopped — before crossing	❑ wear bright / reflective clothes if walking in the evening or in the rain

while crossing	
❑ watch out for cars turning a corner, or entering and exiting a laneway	❑ while crossing, continue to look left, right and then left again to double-check for turning traffic
❑ make eye-contact with drivers before crossing to ensure they see you and they have stopped	❑ walk — don't turn — in a straight line
❑ remove headphones or put your phone conversation on hold	

when at a pedestrian-controlled crossing	
❑ don't assume that a walk signal or green light means that the cars will automatically stop	❑ don't walk until all traffic has stopped

Activity sheet — Pedestrian safety skills, continued

when crossing a multi-lane street	
❑ make eye-contact with drivers in EACH lane	❑ while crossing, check that drivers in EACH lane see you and have stopped before you step into that next lane
❑ don't assume all drivers are paying attention — just because one driver has stopped it is not a guarantee that all other drivers will stop too	

when crossing an intersection with a traffic circle	
❑ never take short cuts across a traffic circle	❑ do not walk diagonally across the centre

when walking along roads without sidewalks	
❑ walk on the left side of the road to see (and be seen by) traffic	❑ walk in a single file — don't fool around or shove
❑ stay safely away from trucks because truck drivers have limited visibility and trucks require extra space for turning	❑ walk a safe distance from the road away from the traffic
❑ be aware of ditches and other hazards	

when crossing railway tracks and crossings
❑ be cautious

Activity sheet — See and be seen chart

see	be seen
before crossing a street	
A	B
while crossing a street	
C	D
when at a pedestrian-controllerd crossing	
E	(same as D)
when crossing a multi-lane street	
F	H
when crossing an intersection with a traffic circle	
H	(same as D)
when walking along roads without sidewalks	
J	K
at railway tracks and crossings	
L	(not relevant — a moving train will not be able to stop for a pedestrian)

Be visible

- Tell students that, many times, drivers do not see pedestrians. In fact pedestrians are especially difficult to see at night, dawn and dusk, and in bad weather. It's important to be VISIBLE!

Experience

- Distribute strips of wax paper and have the students hold them up over their eyes. Have the students pretend that the wax paper is fog or rain, and explain that neither drivers nor pedestrians can see well in bad weather. Ask the students to note: Which things are most easily seen through the wax paper? Examples: Light from the window, bright/light colours, etc. Have several students wearing dark and light clothing stand on opposite sides of the classroom. Ask the students to look at their classmates through the wax paper and identify which they see more easily.

Explore

Most all safety-focused organizations recommend the use of reflective gear or clothing to reduce or prevent pedestrian accidents. Used along with other pedestrian safety measures like crossing only at designated locations and facing oncoming traffic while walking, reflective gear appears to be a major factor in preventing pedestrian accidents.

Irene Dixon, the creator of Reflective Advantage — a reflective garments line — wants to prevent future crashes by making pedestrians more visible. For example, she has a commuter scarf with reflective material sewn and stuck to both sides that comes in different colours and styles. They light up like a Christmas tree.

A B.C. father made safety gear designed specifically for children. He says, "It does not matter if you are a kid or an adult trade worker — if you are not wearing bright, high-visibility clothing, you are at a greater risk of an accident."

Reflect and connect

- Discuss the roles of a pedestrian to see and be seen
- How does this reduce the risk of injury while out walking?
- How do these practices affect drivers?
- Do the students think that drivers would appreciate having pedestrians be seen?
- Many kinds of special clothing and accessories are available to help increase visibility at night. Do you need high-tech clothing or just clothing that is light in colour?

- How difficult is it for a driver to see a pedestrian at night?
- How long does it take to stop a car to avoid an accident?
- Take a look at backpacks and clothing and determine if there is reflective gear on anything
- What examples of reflective gear are they aware of? Brainstorm a list on the board: light-up shoes for young children, safety gear, light-up bracelets, etc.
- While driving, have the students ever heard a parent complain about a pedestrian's action? What had the pedestrian done?
- Did you know that November tends to be the most dangerous month of the year for pedestrians? Why do they think this is?

Explore

Technologies have been developed to encourage safe road user behaviour and to keep people safe in the traffic environment. For example, traffic lights, pedestrian-actuated lights, tactile curb edges, overpasses and underpasses, speed cameras, reflective road signs, guardrails, signs to warn road users of changed conditions, bulletin boards and speed bumps. Explain that these changes to the road user environment have been developed over time by researching best practices in road safety around the world, and often involve collaboration between many government agencies.

Traffic lights have been installed at intersections in most cities around the world. The earliest known traffic signal dates to London in 1868 — before vehicles were invented. The signal was a revolving lantern that flashed red lights (for stop) and green lights (for caution), which was illuminated by gas and operated by a police officer. Over the years, many different adaptations of traffic lights have been engineered. For example, at some intersections, red light cameras have been incorporated into traffic lights. These take photos of the licence plate of any car that goes through the light. The photos are used by police to keep track of those not obeying traffic rules, and to send them a violation fee.

Traffic engineers consider traffic safety by investigating locations with high crash rates and develop countermeasures, such as traffic lights, to reduce crashes.

Collaborate, explore, develop and design

Group the students into teams. Explain that they are a team of traffic engineers commissioned to develop a plan for a new traffic light or technology to help reduce pedestrian crashes. Teams will conduct research and brainstorm and then come up with a solution. They must draw a detailed diagram of the technology and label the safety features. They must also explain how it might reduce pedestrian crashes.

Presentation

Students can use presentation software such as PowerPoint, or create posters, or paper handouts to present the new traffic light to the city (the class). It must be persuasive.

Assessing the risks

Time requirement

This learning plan will take one session to complete.

Inquiry question

What are the risks pedestrians face and how can they be prevented? How can I protect myself and others from potentially unsafe situations?

Learning objectives

Students will:

- Watch and listen to walk smart videos:
  - Identify key points to remember when crossing a laneway, street corner or crosswalk
  - Identify key points to remember when walking on a sidewalk
  - Identify key points to remember when taking a school bus or city bus or public transit
- Review scenarios and identify rules/actions that could reduce the risks
- Demonstrate problem-solving skills
- Reflect on possible dangers they might encounter as pedestrians
- Complete a quiz on pedestrian safety
- Identify distractions that place pedestrians at risk
- Experience travelling through distractions
- Conduct a self-assessment/self-reflection

Materials and resources

- ICBC crash statistics
- Videos:
  - *Sidewalk safety* (2:40 min.)
  - *Crossing the Street* (2:06 min.)
  - *School Bus and Rural Safety* (3:46 min.)

Video Synopsis

Tiara and her friend, Dante, talk about traffic safety rules using various scenarios — walking where there are no sidewalks, crossing the street at pedestrian-controlled crosswalks, and safely navigating train tracks. They focus on thinking on your feet, looking, listening and planning your route to avoid busy streets and knowing where the crosswalks or safe places to cross are.

Key messages

- Plan your route
- Think for yourself and make safe choices
- Be aware of high-traffic intersections, and traffic hazards
- Stop, think, look, listen and look again
- Don't cross until you've made eye contact with drivers and the cars have stopped
- Don't assume that drivers or cyclists are alert, or are paying attention to traffic signals or signs
- Wear clothes that are bright or have reflective materials and are easy to see, especially at night or on rainy days
- Cellphones and headphones can distract any age group from hearing or attending to what's happening around them
- Children especially can be at risk if they're using a cellphone or headphones when walking or biking
- Always remove your headphones and stop talking or texting on your cellphone before you cross a street
- Ignore the cellphone if it rings while crossing the street and wait until you're on the sidewalk away from traffic, or check messages when you reach your destination

Watch and Listen

Video 1: *Sidewalk safety* (2:40 min.)

Tiara and her friend Dante show how to walk safely when on a sidewalk or on the side of the road where there's no sidewalk. They also show how to cross at a pedestrian-controlled crosswalk and railway tracks. They focus on planning your route, being safe when walking with friends (no shoving or pushing) and looking out for possible dangers.

Reflect and connect

How do you walk safely on the sidewalk and why?

- Cross all major roads at a crosswalk or traffic light
- Wear bright clothes and reflective tape on jackets or backpacks so that you're visible, especially at night or on dull and rainy days
- When walking with friends, don't push and shove or walk too close to the curb; spread out so you can all walk safely
- Remove headphones when you approach an intersection so you can hear traffic
- Be courteous to other pedestrians, especially those with walkers, canes, wheelchairs, strollers or younger children
- Be aware of other users, especially those on skateboards, scooters or with dogs
- Stay safely away from trucks, because drivers have limited visibility — they often make wide turns at intersections because they need extra room to turn

What do you do if you're walking where there's no sidewalk?

- Walk on the left-hand side facing traffic so you can see oncoming cars and trucks and they can see you
- Walk a safe distance from the road well away from traffic
- If you're walking with friends, always walk in single file — don't fool around or shove
- Be aware of ditches and other hazards that might be dangerous

How do you safely cross railway tracks?

- Stop, look and listen — and look again
- Never cross when you can hear or see a train, or if the crossing lights are flashing. Never duck under the crossing barrier if it's being lowered, or if it's already down. Never race a train.
- Be careful when you step over the rails or ride or walk a bike across tracks
- Always check twice when you cross, especially where there are double tracks
- Don't play on railway tracks or cross over a river or valley by walking along a train bridge

Watch and Listen

Video 2: *Crossing the Street* (2:06 min.)

Tiara, Dante and others show safe ways to cross the street in different situations: pedestrian-controlled crosswalks, crosswalks with student crossing guards, more complicated multi-lane streets and traffic circles. They focus on thinking on your feet, planning your route to avoid busy streets and knowing where the crosswalks or safe places to cross are located.

Reflect and connect

What are the key points to remember when you're crossing a laneway, street corner or crosswalk? Always:

- Stop, look and listen, and look again
- Cross a road where there's a traffic light or a crosswalk
- Make eye contact with drivers and cyclists before crossing — don't assume that because you can see them, they can see you
- Watch all traffic signals, and wait until all cars, trucks and bikes have stopped
- Continue to look left, right and then left again when crossing, double-checking that all approaching cars and bikes have seen you and stopped
- Watch out for cars turning a corner, or entering and exiting a laneway
- Walk in a straight line, and never run across a street

What do you do at an intersection that has a crossing guard?

- Stop and take a step back from the curb, away from traffic
- Look left, right and left again so you see what the guard sees
- Wait until the crossing guard tells you it's safe to cross
- Watch all traffic signals, and make sure cars have stopped

How do you cross the street that has a pedestrian-controlled crossing?

- At a corner with a traffic light, remain a step back from the curb
- Push the button to change the light and wait, but don't assume that a walk signal or green light means that the cars have stopped — you still need to check left, right and then left again
- Before crossing look left, right and left over your shoulder to check traffic beside and behind you to ensure cars coming around the corner have stopped
- Make eye contact with drivers before crossing to ensure they see you and stop

- Don't walk until all the traffic going in both directions has stopped — make eye contact with drivers in each lane so you know they can see you
- Look over your left shoulder to check that cars coming around the corner have stopped

How do you cross the street that has more than one traffic lane going in the same direction?

- Make eye contact and check that drivers in each lane see you and have stopped
- While crossing, stop in front of the vehicle in the first lane and check again that approaching vehicles in the second lane see you and have stopped before you walk across that lane
- Don't assume drivers are paying attention or can see you — just because one driver has stopped, that doesn't mean other drivers will stop

How do you cross an intersection with a traffic circle?

- Never take shortcuts across a traffic circle — in other words, don't walk diagonally across the intersection
- If you need to get to the furthest corner at a traffic circle, you'll need to walk across both streets from corner to corner to corner — use the same rules for crossing both times

Watch and listen

Video 3: *School Bus and Rural Safety* (3:46 min.)

A series of short scenes where children model how to walk along rural roads, cross train tracks, and follow safety rules when waiting for and leaving a school bus. The focus is on making eye contact with bus driver and being aware of traffic.

Reflect and connect

When you walk on rural roads, or roads without sidewalks, what do you need to pay attention to?

- Walk on the left side of the road facing oncoming traffic
- Walk well away from the road, but not too close to ditches or other hazards
- If you're walking with friends, always walk in a single file — don't fool around or shove
- Stay far away from trucks and stand well back when you're at a corner or crosswalk; trucks require extra space for turning

What are the safety practices around a school bus stop?

- Arrive early at the bus stop and never run after a bus if you're late
- Wear visible, bright clothing, and add reflective tape to your backpack or jacket for dark or rainy days
- Use your traffic-safety skills when crossing a street. Try to always cross at an intersection or crosswalk. Keep an eye out for younger children to ensure they're safe. Model safe choices when walking with others, particularly when they're younger than you.
- Stand two steps back from the road while waiting for the bus and move further back when the school bus arrives; wait until it stops before approaching

When leaving a school bus, walk 10 steps ahead before you cross the road so that the driver sees you. Make eye contact with the driver — a bus driver cannot see you when you're close beside, behind or right in front of the bus.

- Check for traffic in both directions before crossing the road — don't think that all cars or bicycles will stop
- If you drop something, wait until you make eye contact with the bus driver and it's OK to pick it up
- Only school buses have a stop sign and red flashing lights to help stop traffic. If you're on any other bus, walk to the nearest crosswalk or intersection. After exiting, do not cross directly in front of the bus!

Quiz time

1. Why is it dangerous to cross the street in the middle of a block? Or chase a ball that's rolled onto the street?
2. Why is it important to listen to the school crossing guard?
3. Why do you need to make eye contact with drivers and cyclists and ensure they have stopped before you cross the street?
4. When walking in traffic or crossing the street, what's wrong with wearing headphones or talking or texting on your cellphone?
5. If you were teaching a younger child how to cross the street, what important points would you be sure to share with them?
6. Who else uses the sidewalk?
7. Why watch out for ditches when you walk on a road without sidewalks? What other hazards might you need to watch out for?
8. What's the difference between a transit bus and a school bus when it stops?

9. A friend is taking the school bus for the first time — what safety rules would you share with him/her?
10. If you were taking younger children on the school bus, what key information about bus safety would you tell them about: Waiting for the bus? When the bus arrives? While riding the bus? After getting off the bus?
11. Why is making eye contact with your bus driver and any other drivers important?
12. How can the clothes that you wear be important?
13. If you hear a train coming, but it's not in sight, do you cross?
14. Why is it dangerous to play on or near train tracks?
15. What tells you that a train is coming?
16. How do you cross an intersection with a traffic circle?

Analyze, reflect and connect

Have the students consider the following pedestrian risks. Discuss which are environmental conditions, which are pedestrian behaviour, which are vehicle-related and which are driver-related. What rules/actions could reduce the risks and prevent crashes?

- Child chasing ball onto the road
- Dog on the road
- Cyclist riding the wrong way down the street
- Vehicle with a fogged or icy windshield
- Leaves on the road (wet leaves are like ice)
- Drain grate
- Driver texting
- Pedestrians walking after dark
- Broken bottle on the road
- Jogger listening to a music player with headphones on, while crossing the road
- Door opening on a parked car
- Potholes
- Driver speeding
- Ice on the road
- Adult walking across a crosswalk texting on their cellphone
- Vehicle with a cracked windshield

- Driver eating
- Pedestrians chasing each other on the sidewalk
- Fog and rain
- Driver under the influence of drugs or alcohol

Pedestrian Traffic Incidents on the Rise

In B.C.'s Lower Mainland, traffic incidents in which at least one pedestrian was involved rose from 2,300 in 2013 to 3,000 in 2017 (the last year for which numbers are available from ICBC). That is a 33% increase. Why do you think the numbers are rising?

Crashes where at least one pedestrian was involved in B.C.

	2013	2014	2015	2016	2017	5-year average
Incidents	2,300	2,800	3,000	3,100	3,000	2,900
Injured pedestrians	2,400	2,700	2,600	2,700	2,300	2,500
Fatal pedestrians	52	55	66	65	42	56

The statistics

Review the statistics by age group. Use a graphing tool to graph the results. What age group has the highest number of injuries? Why do you think this is?

Injured Vicitims by Age Category by Role (year 2013–2017 combined)

Age category	Pedestrian	Cyclist	Driver	Passenger	Other	Total
0–4	120	25	18	3,800	1,200	5,200
5–6	67	16	3	1,700	560	2,400
7–9	97	38	8	3,000	900	4,000
10–12	160	98	5	3,000	930	4,200
13–15	350	210	7	3,400	1,000	5,000
16–18	580	290	7,600	4,700	2,100	15,000
Other	11,000	7,600	280,000	53,000	54,000	410,000
Total	**13,000**	**8,200**	**290,000**	**73,000**	**61,000**	**440,000**

Did you know that, under the *Motor Vehicle Act*:

- A pedestrian must not leave a curb or other place of safety and walk or run into the path of a vehicle that is so close it is impracticable for the driver to yield the right-of-way

- When a pedestrian is crossing a highway at a point not in a crosswalk, the pedestrian must yield the right-of-way to a vehicle
- If there is a sidewalk that is reasonably passable on either or both sides of a highway, a pedestrian must not walk on a roadway
- If there is no sidewalk, a pedestrian walking along or on a highway must walk only on the extreme left side of the roadway or the shoulder of the highway, facing traffic approaching from the opposite direction
- A person must not be on a roadway to solicit a ride, employment or business from an occupant of a vehicle; except for a person who solicits a ride in an emergency situation, a person who contravenes this section commits an offence

Explore — Pedestrian incidents in B.C.

The number of incidents involving pedestrians and cyclists in our province is at an all-time high (Source: ICBC). There is an average of eight pedestrian incidents and six cyclist incidents each day in B.C.

ICBC has an interactive crash map that shows how many crashes involving pedestrians and cyclists are happening at and between intersections in B.C.

Use the ICBC crash map to identify how many crashes involving cyclists and pedestrians are happening at an intersection in your community. Why has it been identified as a high crash location? If possible, walk to the location, or view it on Google Maps or Google Earth. What do you think the problem with the intersection is that makes it crash-prone? Analyze the area. Are there traffic lights? Walk signals? A bicycle lane? Are trees or other objects obstructing vision?

- Cyclists
- Pedestrians

Design a poster with an improvement to the location to reduce the number of crashes. Consider the environment and nature.

Activity sheet — Poster rubric

Name(s) _____

Topic _____ Date: _____

☐ Self assessment ☐ Peer assessment ☐ Teacher assessment

	Extending	Proficient	Developing	Emerging
Effectiveness	The poster stressed the importance of this topic and obviously raised the level of awareness of this issue. Graphics supported key purpose.	This poster indicated the importance of this topic and possibly raised the level of awareness of this issue. Graphics supported key purpose.	The poster stated the importance of this topic, but may not have been relevant. The level of awareness of this issue may not have been improved. Graphics somewhat supported key purpose.	The poster attempted to state the importance of this topic, but was unclear. The level of awareness of this issue may not have been improved. Graphics somewhat supported key purpose.
Focused	Goal and importance of topic clearly stated and obviously relevant. Key/important points included and highlighted. Information provided is accurate, relevant and properly referenced.	Goal and importance of topic stated. Key/important points stressed. Information provided is accurate, relevant and properly referenced.	Goal and importance of topic stated, but may have been unclear. Key/important points included. Information provided may be inaccurate or lack relevance. May not be properly referenced.	Goal of presentation and importance of topic stated but may have been unclear. Key/important points included. Information provided may be inaccurate or lack relevance. May not be properly referenced.
Quality of work	The poster has a professional appearance. Details are thorough and well-thought-out. Use of colour, graphics, etc., enhanced the presentation.	The poster has a somewhat professional appearance. Details are present and partially complete. Uses of colour, graphics, etc., is effective.	The poster lacks a professional appearance. Details are present, but need work. Use of colour, graphics, etc., may not be effective.	The poster lacks a professional appearance. Details are not adequately present or may be inaccurate. Use of colour, graphics, etc., isn't effective.
Quality of poster	The poster exceeded the requirements and made a powerful impact.	The poster met the requirements and made a positive impact.	The poster may not have met all of the requirements and/or may not have made an impact.	The poster did not meet all of the requirements and/or did not make an impact.

Go Beyond

Travelling through distractions **— gymnasium or playground game**

Divide the class into two teams: those who travel and those who throw balls.

Team One — walking students

- Students walking across the playing field simulate cars and pedestrians
- Select three student volunteers to walk across the playing field to demonstrate
- Students begin on the end of the field
- Signal the students to cross from one end of the playing field to the other
- As they walk, students try to avoid balls rolled towards them
- If a student is touched by a ball or another player, they are to join the group of students rolling the balls
- Have half the students walking while the other half are rolling the balls

Team two — students who roll balls

Students rolling the balls are simulating possible dangers that we might encounter when travelling, such as pedestrians crossing, cyclists, and animals crossing the street.

- Place the students rolling the balls on the sides of the playing field
- Give each student one ball
- Students must roll their ball in order to touch the students crossing the playing field
- Before students roll their ball, they must give a verbal or non-verbal warning of their intention by calling out the name of the student they intend to hit or giving an arm signal as a warning
- Once a ball has been rolled, it must be retrieved by the thrower

In order to encourage students to reflect on the various distractions they encounter when travelling, the game must be played three different times. The first time, students walking across the playing field will do so without distractions, simulating an ideal travelling situation. The second time, students crossing will have a hearing impairment — they will be listening to an iPod or the teacher will play very loud music, simulating travelling situations with hearing distractions, such as driving a car with loud music. The third time, students crossing the playing field will have a visual impairment — they will be blindfolded, simulating visual distractions when travelling, such as texting.

Teacher note:

Always be wary of student safety. You might choose to add safety guidelines before and during the game if necessary.

Self-assessment/self-reflection

Have students write a short reflective writing piece about an experience where they or someone they know were at risk as a pedestrian.

- Summarize the experience
- Who were they with?
- Where were they?
- What was the risk?
- How did the experience make them feel?
- What were the possible consequences?
- What would they do differently next time?

Ready, set, action!

Time requirement

This learning plan will take two sessions to complete.

Inquiry question

How can I be an effective role model, helping younger children be safe pedestrians and avoid potentially harmful situations?

Learning objectives

Students will:

- Be an effective role model to a younger student
- Show and explain road signs and their meaning to a younger student
- Play a game with a younger student to help them learn traffic and pedestrian safety rules

Materials and resources

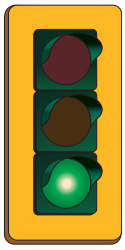
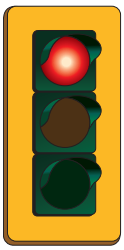
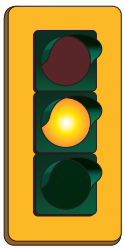
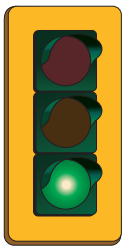
- *Traffic signs and signals* activity sheet on page 54
- *Pedestrian safety skills* activity sheet on pages 59 and 60

Experience, collaborate, build relationships, practise being a role model

Scenario 1 — traffic signs and signals

- Show the younger buddy the images of pedestrian signs, signals
- Ask them which of the signs and signals are familiar to them, and which are new
- In what ways are the signs and signals useful?
- Is there a universality to our road signs and signals that helps non-English speakers and young children cross the street safely?

Activity sheet — Signs and signals

 Railroad Crossing	 Yield	 Stop	 No Bikes	 Do Not Enter
 Traffic Light	 Walk	 Don't Walk	 Wrong Way	 Speed Sign
 Stop	 Wait	 Go	 Hospital	 Bike Route

Scenario 2 — Play traffic bingo

Use the signs and signals to play *traffic bingo* (see page 56) with the younger buddy. Each student with a younger buddy will:

- Review the traffic signs and their meanings and pedestrian safety skills
- Randomly cut 14 signs and signals and place them in the bingo squares
- The teacher will need a complete set of the 14 signs and signals cut and placed in a container
- To start the game, the teacher will pull a sign from the container, and call and show the sign
- Have students use a bingo chip to cover the sign if they have it
- Have students call out bingo when they have a complete horizontal, vertical or diagonal row

Activity sheet — Traffic bingo

	FREE SPACE	

Scenario 3 — Because statements

Buddy with a Grade 1 or Grade 2 class and have students explain pedestrian safety rules and why they should be followed. Each student with a younger buddy will review the rules as a question and then discuss and write a reason why it should be followed. Use the *Because statement* activity sheet on page 58.

Activity Sheet — Because statement worksheet

At a crosswalk, why STOP, LOOK, LISTEN and LOOK AGAIN?	because....
Why should young children walk with an adult?	because....
Why walk in single file, and don't fool around or shove?	because....
	because....
	because....
	because....
	because....
	because....

Activity sheet — Pedestrian safety skills

before crossing a street	
❑ seek to cross at a traffic light or a crosswalk	❑ obey all traffic signals
❑ never cross mid-block even if a friend calls to you to cross over	❑ always STOP, LOOK, LISTEN and LOOK AGAIN
❑ wait a step back from the curb	❑ look left, look right, look left again to double-check
❑ make eye contact with drivers and cyclists — and wait until they have stopped — before crossing	❑ wear bright / reflective clothes if walking in the evening or in the rain

while crossing	
❑ watch out for cars turning a corner, or entering and exiting a laneway	❑ while crossing, continue to look left, right and then left again to double-check for turning traffic
❑ make eye-contact with drivers before crossing to ensure they see you and they have stopped	❑ walk — don't turn — in a straight line
❑ remove headphones or put your phone conversation on hold	

when at a pedestrian-controlled crossing	
❑ don't assume that a walk signal or green light means that the cars will automatically stop	❑ don't walk until all traffic has stopped

Activity sheet — Pedestrian safety skills, continued

when crossing a multi-lane street	
❑ make eye-contact with drivers in EACH lane	❑ while crossing, check that drivers in EACH lane see you and have stopped before you step into that next lane
❑ don't assume all drivers are paying attention — just because one driver has stopped it is not a guarantee that all other drivers will stop too	

when crossing an intersection with a traffic circle	
❑ never take short cuts across a traffic circle	❑ do not walk diagonally across the centre

when walking along roads without sidewalks	
❑ walk on the left side of the road to see (and be seen by) traffic	❑ walk in a single file — don't fool around or shove
❑ stay safely away from trucks because truck drivers have limited visibility and trucks require extra space for turning	❑ walk a safe distance from the road away from the traffic
❑ be aware of ditches and other hazards	

when crossing railway tracks and crossings
❑ be cautious

Scenario 4 — Make a paper fortune teller with and for a younger buddy

- Give each student a handout on how to make a paper fortune teller
- Students follow the instructions using a square piece of paper
- Have the younger buddy colour each outside section a different colour and put numbers on the inside sections
- On the inside tabs, the older student will write a "why" rule and a "because" answer from the list they created together
- Older students can practise playing their fortune teller game with each other and with other teams, and then the younger buddy can take the paper fortune teller home to play with family members

Go beyond

- Organize a buddy walk. Take the hand of a Grade 1 or Grade 2 student and walk them around the school neighbourhood and identify traffic signals and their meanings. Take a moment to appreciate the outdoors.
- Volunteer to monitor the sidewalk in front of the school to help younger children get to school safely
- Volunteer to monitor the playground before and after school and during breaks
- Make a resource for a younger student
  - Have the students make a resource for younger students — a series of posters, a comic book, a flip book, a songbook, etc. to teach them about passenger safety, pedestrian safety, school bus safety or bicycle safety. If possible, midway through the development of the resource, schedule a brief session where your student groups can show the younger students their work in progress. Encourage questions from younger students or, if necessary, provide some direction so that the Grade 5 students can assess how well their imagery and language is understood by the primary students. Present the finished project to the younger students.

Bumper Sticker Campaign

A bumper sticker is an adhesive label or sticker with a message, intended to be attached to the bumper of an automobile and to be read by the occupants of other vehicles.

Ask students to name some bumper stickers they remember seeing on cars. Have students discuss what makes these bumper stickers memorable. Discuss the purpose of bumper stickers. List the characteristics of "successful" bumper stickers.

Have students design bumper stickers to remind drivers (and passengers) not to take chances while driving. Their bumper sticker should focus on making good decisions and avoiding risky behaviour ("put your cellphone away", for example). The purpose of the activity is to create awareness.

Consider what phrases, images and ideas might be attention-getting. Be clever, be funny, be serious. Use statistics. It should be bold and easy to read from 1 metre away.

Create the bumper sticker on one PowerPoint slide. On the notes section under the slide, write a descriptive paragraph about the message, explaining the theme expressed on the bumper sticker. Provide one statistic that supports the message and cite sources of information.

For ideas, visit Slogans Hub for 50 creative road safety messages.

Safe route to school

Time requirement

This learning plan will take three sessions to complete.

Inquiry question

How can I use planning to reduce risk?

Learning objectives

Students will:

- Choose between two options for the better/safer walking route to school
- Plan the journey to school as a means of reducing risk
- Identify cardinal points (north, south, east and west) and use them on a map
- Engage in problem-solving to help find the best route from home to school
- Understand and document safe pedestrian practices that are new to the students
- Create a checklist/chart to assess which route has the lower risk
- Student's decision for their best route to school is backed up with justified assessments of reduced risk
- Student's map portrays a reasonably accurate depiction of the streets and crossings between the two destinations (e.g., their home and the school)
- Participate in a Socratic seminar

Materials and resources

- *Pedestrian safety skills* activity sheet on pages 71 and 72
- *Safe Route to School* activity sheet on pages 67 and 68
- Map of neighbourhood between home and school (city map, school district map, Google maps, etc.)
- Colour markers or highlighters
- Pedometer app or clip-on pedometer for each student (optional)

Reflect and connect

Everyone benefits from walking. Discuss what the benefits include. (Examples might be improved fitness, cleaner air, etc.) Statistics show that the vast majority of school-aged kids are not getting enough physical activity — only 5% of children and youth in Canada between the ages of 5 and 19 reach the daily minimum of 12,000 steps. Walking to school is an excellent way to get exercise.

But walking to school needs to be safe and easy.

- Distribute Pedestrian safety skills (E4 in Resources)
- Ask students to look over the list to identify which of the items are already known to them, and which pedestrian safety skills are new to them
- As a class, discuss some of these new skills. What do the students think they have risked by not knowing these rules?
- Does everyone live the same distance from school? How do you know?
- Is there only one way to get from your home to the school?
- Could you give someone else directions to get from your home to the school? Does it matter whether you tell them the steps in order and if you are specific when you give the directions?
- Have the students turn to a classmate and share their directions from home to school. Have them use only words, no gestures, no sketches, etc. (Discuss with students the challenges of giving directions using only words.)

Explore

Introduce the topic of risk assessment, and explain to the students that risk assessment involves three steps:

- Identifying things that could cause harm (hazards)
- Assessing how likely these are to actually happen and how bad/severe the consequences could be (the risk)
- Looking for ways to minimize the risks, or make them smaller
  - Is it possible to eliminate any of the risks completely?

Explore and Experience

Explain that you will be asking the students to compare two walking routes to school.

Note: If students are not able to walk to school, the assignment could be to determine a best walking route to a destination near to the school or home.

If students live very close to school (e.g., there is only one road linking their home to the school), they could be asked to assess a best route to the library or other destination. As a pedestrian safety activity, students who cycle are suggested to focus on the walk to school. Students may work individually, or in pairs with a student who lives very close to them.

- Have the students map two possible routes from home to school using Google maps or MapQuest
- List the stages for each option, for example:
  - Walk along _____ Street
  - Use the crossing at _____ Street
  - Walk through _____ Park
  - Turn north at the corner of _____ Street and continue walking
- What pedestrian hazards are they aware of? Is there traffic congestion? Are some times of the day worse than others? Do heavy vehicles use the roads around the school? Are the roads in a good condition around the school? Is there a pedestrian-safe parent drop-off zone? Are there lights at crosswalks?
- Create a checklist/chart to assess which route has the lower risk, due to a combination of:
  - The presence of sidewalks
  - A barrier or space between the sidewalk and traffic (e.g., a grass verge, bushes, parked cars)
  - Crosswalks
  - Pedestrian lights
  - Slower traffic speeds
  - Lighter traffic volume

Questions

- What is the distance in kilometres for both routes?
- How long will it take to walk each one? (An average person walks 1 kilometre in 15 minutes.)
- How many steps will it take to walk each one (There are an average of 1,312 steps in 1 kilometre.)
- How many more/less steps are needed to reach the 12,000 steps goal?
- What hazards are on each route? Which route is the safest?

Activity sheet — Safe route to school checklist

How walkable is the route to school?

1. Did you have room to walk?
   - ❑ Yes
   - ❑ Some problems
     - ❑ Sidewalks were broken or cracked
     - ❑ Sidewalks were blocked with poles, signs, trees, garbage cans, etc.
     - ❑ No sidewalks, paths or shoulders
     - ❑ Too much traffic
     - ❑ Something else _____
     - ❑ Location of problems _____
2. Was it easy to cross streets?
   - ❑ Yes
   - ❑ Some problems
     - ❑ Traffic signals too long or did not give enough time to cross
     - ❑ No traffic signals
     - ❑ No crossing guards
     - ❑ Parked cars blocked view of traffic
     - ❑ Trees, plants, poles or garbage cans blocked view of traffic
     - ❑ Too much traffic
     - ❑ Something else _____
     - ❑ Location of problems _____
3. Did drivers behave well?
   - ❑ Yes
   - ❑ Some problems
     - ❑ Backed out of driveway without looking
     - ❑ Did not yield to pedestrians crossing the street
     - ❑ Drove too fast
     - ❑ Driver was distracted (eating, talking on cellphone, etc.)
     - ❑ Made a right turn without checking for pedestrians
     - ❑ Drove through traffic light
     - ❑ Something else _____
     - ❑ Location of problems _____

Activity sheet

4. Was your walk pleasant?
   - ❑ Yes
   - ❑ Some problems
     - ❑ Barking, scary dogs
     - ❑ Scary people
     - ❑ Not well-lit
     - ❑ Litter or other garbage
     - ❑ Poor air quality due to traffic exhaust
     - ❑ Something else _____
     - ❑ Location of problems _____

Question and Investigate

Ask students to consider other factors they need to be aware of in their community (e.g., bears, trucks, highways) and add them to their list.

- Encourage the students to walk along both routes to confirm and itemize the list of risk-assessment factors and discuss the two options
- Encourage students to also consider local information and sources of support along both routes: friends' homes, dogs not bound by leash or yard, cautionary places to avoid, etc.
- Encourage students to notice the sounds of nature and be mindful of what the surroundings are, and to show gratitude for the outdoors
- Have students assess both routes and identify the place/location on both routes in which they (and/or their parents) consider to have the highest risk of danger; identify the risks
- Ask students to discuss which of the school access points are safest, away from vehicle drop-off and pickup locations
- Have students draw a final map presenting their decision as to which is the better route along with a short outline of the key factors in the assessment and identifying the risks they discovered

Develop, design and present

Invite students to present their maps to the class and discuss some factors involved in making the decision:

- Was it difficult to choose between the two routes?
- What is the distance in kilometres for each route?
- How long will it take to walk each one?
- How many steps will it take to walk each one? (There are an average of 1,312 steps to 1 kilometre.)
- How many more/less steps are needed to reach the goal of 12,000 steps?
- Who has the longest/shortest distance to school?
- If both routes seemed similar, what was the deciding factor?
- How did their parent or guardian contribute to the decision of the best route?
- Did the presentations draw attention to specific items/places along the routes that they believe require attention from the municipality/region (e.g., add a crosswalk here, add a stop light here)? Did more than one presentation find the same risks?
- Obtain feedback from classmates and then revisit their maps and edit/update their maps

Inquiry — Socratic Seminar

Invite four or five volunteers for a Socratic seminar on walking to school vs. driving/riding to school. The volunteers will move their chairs to the front of the class. Each panel member can, one at a time, express their views and feelings on the topic — they should refer to the hazards or lack of hazards that they noted on their research of a safe route to school. After panel members have expressed their view on the question, the floor is open to questions from the audience.

Go beyond

- Buddy with a younger class and project with them to find a safe route to school. Create a map of their route to school using natural material to indicate paths, roads and landmarks, and tell a story of how they individually know their community neighbourhood. Present the maps to other groups and to parents.
- Post signs in the hallway bulletin board identifying hazards on the way to school
- In groups of three or four, have students write a persuasive letter to the city identifying risks and a potential solution to the risks they identified on their way to school (e.g., add a crosswalk here, add a stop light here)
- Post a large map of Canada on a bulletin board and determine the number of kilometres it takes to cross the country; students can add up their walking kilometres individually, as a class or whole school and see how quickly they can "walk across Canada"
- Encourage students to join up with two or more younger children from other families and create a walking school bus. The group will follow a predetermined route, pick up walkers along the way and travel to school together. Students can also share the task, by scheduling dates that they would walk children. For example, team A may walk children to and from school on Mondays, Wednesdays and Fridays, and team B walks with them on Tuesdays and Thursdays.
- Help co-ordinate and participate in events to promote walking/cycling to school safety
- Resources:
  - B.C. Sector Wide Road Safety Calendar
  - HASTEBC resources
    - School Site Walkabout
    - School Travel Survey
    - Drive-to-five Program/Park and Walk Program
    - Parent Advisory Council Presentation
    - Regular Walk and Wheel to School Program
    - Walk and Wheel Event

Activity sheet — Pedestrian safety skills

before crossing a street	
❑ seek to cross at a traffic light or a crosswalk	❑ obey all traffic signals
❑ never cross mid-block even if a friend calls to you to cross over	❑ always STOP, LOOK, LISTEN and LOOK AGAIN
❑ wait a step back from the curb	❑ look left, look right, look left again to double-check
❑ make eye contact with drivers and cyclists — and wait until they have stopped — before crossing	❑ wear bright / reflective clothes if walking in the evening or in the rain

while crossing	
❑ watch out for cars turning a corner, or entering and exiting a laneway	❑ while crossing, continue to look left, right and then left again to double-check for turning traffic
❑ make eye-contact with drivers before crossing to ensure they see you and they have stopped	❑ walk — don't turn — in a straight line
❑ remove headphones or put your phone conversation on hold	

when at a pedestrian-controlled crossing	
❑ don't assume that a walk signal or green light means that the cars will automatically stop	❑ don't walk until all traffic has stopped

Activity sheet — Pedestrian safety skills, continued

when crossing a multi-lane street	
❑ make eye-contact with drivers in EACH lane	❑ while crossing, check that drivers in EACH lane see you and have stopped before you step into that next lane
❑ don't assume all drivers are paying attention — just because one driver has stopped it is not a guarantee that all other drivers will stop too	

when crossing an intersection with a traffic circle	
❑ never take short cuts across a traffic circle	❑ do not walk diagonally across the centre

when walking along roads without sidewalks	
❑ walk on the left side of the road to see (and be seen by) traffic	❑ walk in a single file — don't fool around or shove
❑ stay safely away from trucks because truck drivers have limited visibility and trucks require extra space for turning	❑ walk a safe distance from the road away from the traffic
❑ be aware of ditches and other hazards	

when crossing railway tracks and crossings
❑ be cautious

Stop, think, go!

Time requirement

This learning plan will take two sessions to complete.

Inquiry question

What could you think to yourself when someone is trying to influence you to do something unsafe around roads? What could you say to someone who is trying to influence you to do something unsafe around roads?

Learning objectives

Students will:

- Demonstrate problem-solving skills
- Identify problems and make decisions
- Conduct a self-assessment/self-reflection

Reflect and connect

What could you think to yourself when someone is trying to influence you to do something unsafe around roads? What could you say to someone who is trying to influence you to do something unsafe around roads?

Explore

- Have students form groups of about three
- Give each group a scenario. Ask each group to demonstrate their problem-solving skills by using the problem-solving traffic light to:
  - **Red:** Stop and identify the problem. What does my friend want me to do? Is it something good or bad? Kind or mean? Healthy or unhealthy? Legal or illegal? Is it something you would do if your parents were watching?
  - **Yellow:** Wait and think: What could happen if I do it? Imagine any possible good results: Will you be doing something positive? Will you be helping someone? Imagine any possible bad results: Can you get hurt? Can you get in trouble? Can someone else get hurt or in trouble?

– **Green:** Go! Make a decision and a plan. Should I do it? Will you be proud of your choice afterward? Would your parents be proud of your choice?

RED:	Stop and identify the problem. (What happened) What factors may have contributed to the crash – consider the pedestrian, the driver, the environment and the vehicle.
YELLOW:	Wait and think. Look at all the choices and their consequences (why did the crash happen) – consider the pedestrian, the driver, the environment and the vehicle.
GREEN:	Go! Make a decision and a plan (what could have prevented the tragedy).

Problem-solving scenarios

You're playing video games with your friends when one of them mentions a 5K race that's coming up. You've never run a race before and aren't sure you should start now, but your friend says, "I bet we can do it. Look, I printed out this training plan. Let's start tomorrow."

You are going home with a friend's mom. She has parked on the other side of the road to the school and yells out for you to quickly run across the road because she is in a hurry and has the baby in the car. You know that it is safer to use the crosswalk further up the road. What should you do?

You are showing your friend how to play soccer on the edge of the road. Your friend misses the ball and it starts rolling out into the middle of the road. Your friend shouts at you to go and get the ball before it gets squashed. What should you do?

You and a friend are waiting for the 'walk' signals at the traffic lights. Your friend says that it is taking too long and you both should just run across after the next car. What should you do?

Some children are riding their skateboards on the sidewalk and practising jumping the curb. They are not wearing helmets or safety gear. What should you do?

You are walking home from school on the sidewalk next to a busy road. Your friend is wearing headphones and listening to music and wants you to listen too. You know that you both should be listening out for traffic. What should you do?

Self-assessment/self-reflection

Have students write a short reflective writing piece about a scenario where they experienced positive or negative peer pressure.

- Summarize the scenario
- Who were they with?
- Where were they?
- Was the peer pressure positive or negative? Why?
- How did the experience make them feel?
- What were the possible consequences?
- What would they do differently next time?

Personal values and choice

Revisit the peer pressure policy completed in Learning Plan 2 and have students edit/update or reaffirm their own personal policy on peer pressure.

Activity sheet

My personal pledge

Name

Date

I can tell when I am being pressured to do something I don't want to do or that I know is wrong because I

When I feel that way, I use stop, think, go traffic light to consider my options because

If I need help from someone I

When I resist negative peer pressure and choose to do what I know is right, I feel

My personal policy against peer pressure is

Unit review

Time requirement

This learning plan will take one session to complete.

Inquiry question

What have I learned about pedestrian safety and my responsibility to myself and others?

Learning objectives

Students will:

- Conduct a self-assessment/self-reflection
- Take a quiz

Quiz Time

As a class, discuss the following questions and the appropriate answers.

1. Which door should you use to get in and out of your car?
   a. Any door
   b. The door closest to the sidewalk
2. What is the Danger Zone on a bus?
   a. The bus is safe and the driver will look after me
   b. Any bit of a bus that is not the door you walk through — 3 metres around the bus
3. Where should your driver park when they drop you off at school or for the bus?
   a. The same side of the road the school is on or where the bus will stop
   b. The opposite side of the road
4. Where is the safest place to cross the road near school?
   a. The crosswalk
   b. At any place in the road
5. What is the speed limit in a school zone?
   a. 30 kilometres/hour
   b. 50 kilometres/hour
6. Before you cross the road you should
   a. Stop, look, listen and look again
   b. Send a text message to your friend
7. Should you play with a ball near the road
   a. Yes
   b. No
8. The bus is coming. Where should you wait for the bus?
   a. About 3 metres back from the edge of the road on the same side as the bus
   b. Right on the edge of the road to be able to enter the bus quickly
9. Your friends ask you to cross the road away from the crosswalk because they think it's cool. What should you do?
   a. Say OK, just this once
   b. Say no way, I will catch up with you later
10. Your driver is waiting for you across the road. What should you do?
    a. Run across the road
    b. Cross at a crosswalk

Reflect and connect (you will need a beach ball and strips of paper)

Brainstorm with the class what they learned in this unit and have them turn what they have learned into questions. Write all the questions they brainstorm on pieces of paper and give each student one or two.

Have the students form a large circle. Grab a beach ball and toss it to one of the students. Ask them one of the brainstormed questions. The student answers the question and then tosses the ball to another student and asks them one of the prepared questions. Continue this process as time allows.

Possible questions:

- What is one thing you learned in this unit?
- Why should pedestrians wear reflective clothing?
- What should you do if you are being peer-pressured into doing something unsafe?
- What are the main hazards in our area for pedestrians?
- What are some key rules that pedestrians in our area need to obey to stay safer?
- How can you help a younger child or friend be safe?

Collaborate, explore and present

- Post the topics of road safety rules not followed from the first lesson and assemble the students in small groups of three or four
- Allow the groups to choose one of the rules not followed that they have not worked on previously
- Ask the groups to make up a realistic scenario for this road safety rule and identify how the tactics, strategies and/or resources from the recent road safety discussions have made them better prepared to consider this situation
- Have each group choose a presentation format (skit, poster, video, song, poem, etc.) along the theme of "Friends don't let friends _____" to promote pedestrian safety skills to their peers
- When the students are ready with a first draft, pair up the groups so that they can offer constructive criticism on each other's presentations

Go beyond

- Have the students present their strategy
- Invite the principal, parents or other intermediate classes to attend
- Ask each student to reflect on how their own attitudes and feelings might have developed through their work in preparing the poster, skits and strategies to speak up for road safety
- Invite students to share one thought or feeling with the class

Self-reflection

I used to think… But now, I think…

This thinking routine helps students reflect on *how and why* their thinking about a topic has changed. To begin, ask students to consider what "I used to think…" to explain their initial opinions and/or beliefs about pedestrian safety. Then prompt students to share how their thinking has shifted, starting with "But now, I think…" Ask students to elaborate on why their thinking has changed.

Campaign for pedestrian safety

Time requirement

This learning plan will take two sessions to complete.

Inquiry question: How can I protect myself and others from potentially hazardous pedestrian situations? What can I do to campaign for a pedestrian-safe route to school?

Learning objectives

Students will:

- Collaboratively develop a strategy, and write a slogan and a persuasive presentation for it, to raise awareness and advocate for pedestrian safety with an aim to promote the safety of oneself and others
- Review statistics on crashes involving pedestrians
- Demonstrates that doing something is better than doing nothing at all

Materials and resources

- Statistics on crashes involving pedestrians

Reflect and connect

Explain to the class that toddlers (ages 1–2) are most likely to be injured in driveways, where drivers moving backward are unable to see them. Adolescents are at risk due to walking at night with poor visibility, walking while intoxicated, walking while distracted by phones, and other reasons. Children between the ages of 4 and 12 are injured most by entering into the middle of the street and being struck by moving vehicles, or at intersections and where they enter the street quickly, without thought, to chase a person, toy or pet, or to meet someone or something on the other side of the street.

From the Times Colonist

In B.C.'s Lower Mainland, traffic incidents in which at least one pedestrian was involved rose from 1,700 in 2012 to 2,300 in 2016. That's a 35% increase. More current statistics are available from ICBC.

Are the drivers the only ones at fault? Ask the students if they have, or have seen, children doing dangerous or unsafe things while walking.

Explore

As a class, brainstorm all the dangerous, distracted behaviours that children do/have done/could do while walking. Brainstorm how we can make our streets and highways more pedestrian-friendly.

For example:

- Put your device down, look and make eye contact with drivers before crossing — remember to watch out for cars that are turning or backing up
- Always walk on sidewalks or paths and cross at street corners, utilizing traffic signals and crosswalks
- Be aware of others who may be distracted, and speak up when you see someone who is distracted
- If you need to use a cellphone, stop on the sidewalk and find a safe area to talk
- Look up and pay extra attention when using headphones, and remove headphones when crossing the street
- Don't use your skateboard on a sidewalk; always use a skate park
- Make eye contact with drivers before crossing the street, even on a walk signal
- Wear reflective clothing
- Walk, don't run

Watch and listen

Watch the YouTube video — *Flight of the Hummingbird* (2:34 min.)

The hummingbird parable, with origins in the Quechuan people of South America, has become a talisman for environmentalists and activists who are committed to making meaningful change in the world. In this inspiring story, the determined hummingbird does everything she can to put out a raging fire that threatens her forest home. The hummingbird, a symbol of wisdom and courage, demonstrates that doing something is better than doing nothing at all.

Collaborate, research, explore, design and present

In groups, ask students to conduct research on strategies to keep pedestrians safe in the school neighbourhood and come up with a strategy they are willing to implement. Like the hummingbird, doing something is better than doing nothing at all.

Ideas:

- Review the hazards they noted from the safe route to school unit. What could make the walk to school safer?
- Be walking buddies for a Drive-to-five program
- Plan a day for families to meet up about 15 minutes before class at a safe and convenient location a few blocks from the school; walk to school together along a best route that the students have helped to plan
- Clean up the route to school
- Share presentations in a school assembly or at a parent night
- Walk younger buddies around the school playground, noting hazards
- Wear safety vests and help younger children cross at crosswalks
- Monitor crosswalks and remind pedestrians to remove headphones or put their cellphone away

Once the teams have come up with a strategy, have them create a slogan for it, and a persuasive presentation to the city (class) with their recommendations. (For ideas, visit Slogans Hub for 50 creative road safety messages.) They can write, paint, draw, film or design advertisements to campaign for pedestrian safety (awareness of where and how to both see and be seen). At the end of the presentations, have the class pretend to be city representatives and discuss the presentations and decide whether or not they were convinced to adopt the strategy to keep pedestrians safe.

Or have students create Public Service Announcements (PSAs). Explain to the class that PSAs are messages, often in the form of TV commercials, that share a message about health or safety concerning the general public. Show some samples on pedestrian safety from the PSA website. Discuss how making the public aware might change people's attitudes and behaviour.

Go beyond

Make a pedestrian safety display in the school reception area for parents, or create online versions and share them through the school website, email newsletter or social media. You could also invite parents to a special assembly and present your advertisements. You could also display the posters in the community.

Extensions

- Have students create a video "infomercial" explaining their project (use some basic footage of the site to eliminate the need for the student groups to be on-site when filming)
- Have students adapt their project into a comic book or a flip book
- Plan a walk-to-school day for your class or have it be a school-wide event. Walk-to-school day builds community awareness and parent support for safer routes to school. Co-ordinate with community members.
- Invite a police officer to talk to the students about seeing and being seen
- Invite a police officer to come and talk to the class about speeding
- Invite older students to discuss their best routes to school on a large map
- Plan a day for families to meet up about 15 minutes before class at a safe and convenient location a few blocks from the school; walk to school together along a best route that the students have helped to plan
- Ask students about other sidewalk users (for example, joggers, dog-walkers, strollers, wheelchairs). How do the students change their behaviour when they encounter these other sidewalk users?
- Go for a short walk around the neighbourhood to record how many signs students can find. Look for signs on school property. Do they follow the same guidelines as the ones in the handouts? Are there enough signs?
- Note: Signage on school property might be independent of municipal or provincial traffic standards
- Ask students how the road safety rules relate to rules they know in other games
- Ask students if they can identify some games which have potential for unsafe behaviour near the street (for example, games that involve potentially running out into the road: soccer, tag, playing catch)
- As part of a field trip, visit a nearby road that has no sidewalks and/or a railway crossing
- Organize school-wide walking school buses or bike trains — parents, grandparents, or high school student volunteers share responsibility to lead scheduled 'walking buses' to pick up students along set routes to and from school

Feedback and suggestions?

ICBC welcomes your questions, suggestions, and feedback at learningresourcefeedback@icbc.com.

unit 2
passenger safety

Determining prior knowledge

Time requirement

This learning plan will take one session to complete.

Inquiry question

Why do communities have rules? Why is it important to follow rules? What could the consequences be for not following rules? What do I already know about hazards and potentially unsafe situations in relation to passenger safety?

Learning objectives

Students will:

- Depict, share, discuss at least one rule about passenger safety
- Identify when and why they or someone they know has not followed a passenger safety rule
- Conduct a self-assessment/self-reflection

Materials and resources

- Whiteboard or flip chart

Reflect and connect

Why do communities have rules? What are some rules that we have to follow in our community? (These rules can be for any situation and not only related to passenger safety. For example — children have to go to school, drivers aren't allowed to speed and dogs must be kept on a leash in public places.

- What passenger safety rules do they know?
- What does it mean to be a safe passenger?
- Have you ever done something to help someone else be a safe passenger?
- How do you know when someone (including yourself) is not being a safe passenger?

Explore

Explain that people often use their mobile to talk or text while driving and passengers often distract the driver. These distractions interfere with a driver's ability to concentrate and follow traffic cues and be aware of potential hazards. It is important for the driver to give the road full attention.

If possible, make a link to any stories or current or recent events in the community. For example, according to ICBC statistics, approximately 960 crashes occur every day in *B.C.*, many of which are caused by *distracted* or inattentive *driving*.

Question and Investigate

Explain that in the following exercise you will ask students to respond anonymously. You might wish to establish some ground rules:

- Respect the diversity of responses
- Do not judge the comments made
- Do not try and identify your classmate's comments (e.g., by comparing handwriting)

Hand out two slips of paper to each student. On the first slip of paper, ask students to write two or three incidents when they were not a safe passenger either by their behaviour or the drivers.

- Collect the notes, and record (or have a few students record) and number of unsafe passenger events that occurred
- Keep these slips of paper (or a record of the list) as they will be used again at the end of the unit
- If there are very few rules not followed on the board, ask students to list a few other road safety rules that they may have seen other people ignore or disobey
- On the second slip of paper, have students write down all the numbers of the passenger safety rules not followed that apply to them
- Collect these papers and record the tally for each of the responses on the board

Experience

As a class, discuss the results:

- If there are very few rules not followed, congratulate the students on their passenger safety practices
- What do they believe is the reason for this good behaviour?

- Have they seen other students or adults not following passenger safety rules (without naming names)?
- If there are a lot of rules not followed, hold a short discussion about the rules that are most commonly not followed and the risks of not following them
- Encourage the students to talk about these rules and be sure to convey a sense of the seriousness of this discussion
- What are some of the factors that prompt people to not follow pedestrian safety rules?
- Are there circumstances that might get in the way of following passenger safety rules (e.g., running late for school, fighting with siblings)?

Go beyond

Invite your local police officer to discuss road safety rules and their importance.

Self-assessment/self-reflection

Have students write a short reflective writing piece about an experience where they or someone else did not follow a passenger or driving safety rule.

- Summarize the experience. Who were they with? Where were they?
- Why was the road safety rule not followed? Who made the decision?
- How did the experience make them feel?
- What were the possible consequences?
- What would they do differently next time?

Buckle up

Time requirement

This learning plan will take two sessions to complete.

Inquiry question

What does a seatbelt do? Why is it a law? Why do you think non-use of restraints is still a major contributor to death and injury in road crashes? What reasons do you think people would give for not wearing a restraint?

Learning objectives

Students will:

- Participate in discussions about the importance of seatbelts for all vehicle riders
- Identify reasons why passengers need to use a seatbelt
- Collect, organize and interpret data
- Ask questions and make predictions and share observations orally
- Make and record predictions and observations
- Collect, organize and interpret data
- Compare experiment results and share with others
- Conclude and illustrate and write experiment results
- Conduct a self-assessment/self-reflection

Materials and resources

For each group of students

- Two golf balls
- Marker
- Egg cartons cut into three (four egg slots each)
- Tape
- Lego/plasticine
- *Predictions and results* activity sheet on page 93
- Statistics on death/injuries related to no seatbelts or incorrect seatbelts

Reflect and connect

Did you know that each year in B.C., an average of 1,300 children aged 9 and under are injured, and five are killed in motor vehicle crashes? Every time a child travels as a passenger in a motor vehicle, they are at risk of being involved in a collision.

Your chances of surviving a motor vehicle accident increase dramatically if you are wearing your seatbelt properly. Seatbelts hold you in place upon impact. Occupants in the vehicle who are not properly restrained can cause significant injury to themselves, other occupants or the driver during a collision.

Passengers and drivers in British Columbia are required to properly wear a seatbelt. Each unrestrained occupant risks being faced with a violation ticket.

(Source: ICBC — car seats)

Explore

Discuss seatbelts.

- What does a seatbelt do? (Answer: Keeps you securely fastened in your seat.)
- Why is it a law?
- Why do you think non-use of restraints is still a major contributor to death and injury in road crashes?
- What reasons do you think people would give for not wearing a restraint?

Remind the students that there are four stages of child seating and restraint systems in total:

- **Infants:** required to sit in rear-facing car seats until they are at least 12 months old and over 9 kilograms (20 pounds)
- **Toddlers:** required to sit in forward-facing car seats when the child is at least a year old and over 9 kilograms (20 pounds); they should continue to be buckled into this type of seat until they are 18 kilograms (40 pounds)
- **Under 9:** required to be in booster seats with seatbelts when the child is under 9 years of age or until they have reached the height of 145 centimetres (4'9")
- **Youth:** A properly adjusted seatbelt is the last stage for anyone over 9 years of age

If a child is over 18 kilograms (40 pounds), a booster seat will correctly position the vehicle seatbelt over the child's shoulder, across the chest and hips, significantly reducing the risk of injury and/or death.

- Without a booster seat, the incorrect positioning of the lap belt can cause spinal and/or internal injuries in a crash
- Do not use a booster seat with only a lap belt; a shoulder strap is necessary to use these seats properly
- It is recommended to keep children in the back seat until 12 years of age
- Note: Child passengers who have outgrown a child car seat (over 18 kilograms/40 pounds) are required by law to use a booster seat with a seatbelt (both a lap belt and shoulder strap) until they are 9 years old or 145 centimetres (4'9") tall

Predict and experiment — part 1

Explain that students are going to conduct an experiment to see what happens when an egg carton containing golf balls without seatbelts stops suddenly, changes direction and crashes into an object and then compare the results with an egg carton containing golf balls with seatbelts stops suddenly, changes direction and crashes into an object.

- Organize the students into groups of three and give each group an experiment worksheet
- Question: Discuss the purpose of the experiment. Have the teams write the purpose of the experiment, what they wonder
- Hypothesis: Using the experiment worksheet, have them make and record their hypothesis (predictions)
- Procedure: Have the groups place the two golf balls in the egg carton and then push the carton along the floor to determine:
  - What happens to the golf balls when the egg carton with untaped (no seatbelt) balls suddenly stops/changes directions/crashes
- Tape the golf balls into the box and repeat the experiment to determine:
  - What happens to the golf balls when the egg carton with taped (with a seatbelt) balls stops suddenly/changes directions/crashes?
- Results: Have the teams complete the results section of the worksheet
  - What happened to the golf balls when the egg carton with untaped (no seatbelt) balls suddenly stopped/changed directions/crashed?
  - What happened to the golf balls when the egg carton with taped (with a seatbelt) balls stopped suddenly/changed directions/crashed?
- Conclusion: Have teams write a conclusion.
  - What did they learn from the experiment?
  - What does this experiment tell us about passenger safety?

Reflect and connect

- Wrap up with a discussion about speaking up to someone who has not put on their seatbelt. Would the students ask that person to wear a seatbelt? What would they say/do:
  - If it was their friend?
  - If it was their parent or guardian?
  - If it was a little brother or sister?
  - If it was an older brother or sister?
  - If it was another adult?

Activity sheet — Predictions and results worksheet

Names _____ Date _____

Question (purpose of the experiment, what we wonder)

What happens when the vehicle with golf balls:

- Stops suddenly without a seatbelt
- Changes direction without a seatbelt
- Crashes without a seatbelt
- Changes direction with a seatbelt
- Crashes without a seatbelt
- Crashes with a seatbelt

Hypothesis (what we predict will happen, what the results will be)

- Stops suddenly without a seatbelt
- Changes direction without a seatbelt
- Crashes without a seatbelt
- Changes direction with a seatbelt
- Crashes with a seatbelt
- Crashes with a seatbelt

Materials (what do you need to conduct the experiment)

Procedure (the steps need to be taken to conduct the experiment)

Results (what happened)

- Stops suddenly without a seatbelt
- Changes direction without a seatbelt
- Crashes without a seatbelt
- Changes direction with a seatbelt
- Crashes without a seatbelt
- Crashes with a seatbelt

Conclusions (what we learned from the experiment)

- Stops suddenly without a seatbelt
- Changes direction without a seatbelt
- Crashes without a seatbelt
- Changes direction with a seatbelt
- Crashes without a seatbelt
- Crashes with a seatbelt

Predict and experiment — part 2

Have students use plasticine to make the shape of a person. Have them make vehicles out of Lego and place their plasticine person in it. Make a ramp for the vehicles to drive on and place a barricade at the end. Have the students place a marker where they think their plasticine passenger will land when the Lego toy hits the barricade.

Have them push the Lego vehicle, with some force, down the ramp and observe the motion of the 'passenger' during and after the collision. Measure the 'impact distance' of the passenger (i.e., where it was thrown from the crash point) and compare with students' estimations. Repeat this step several times and average the distance.

Release the Lego vehicle and passenger from different distances up the ramp or increase the height of the ramp to vary the speed. Continue to observe the motion of the passenger and measure the distance. Repeat this step several times and average the distance.

Questions

- What did you notice about the 'passenger' when the Lego vehicle was moving down the ramp?
- What direction did the passenger travel when it was thrown from the vehicle? Why?
- What happened to the speed of the Lego vehicle when the height of the ramp was increased?
- How did the 'impact distance' of the passenger relate to the car's speed?

Use a piece of masking tape to restrain the passenger in the Lego vehicle then repeat the above steps.

Questions

- What did you notice this time?
- How was this different to when the passenger wasn't strapped into the Lego vehicle?
- What do you think restraints do, other than help to stop a passenger from being thrown from the car? (e.g., they reduce the time taken to come to a stop in a crash; they stop the driver or passengers from hitting the interior of the vehicle)
- Why is it usually more dangerous to be thrown from the car than to remain in it during a road crash?

Reflect and connect

Have the students reflect on what they learned from the two experiments.

I used to think… But now, I think…

This thinking routine helps students reflect on *how and why* their thinking about a topic has changed. To begin, ask students to consider what "I used to think…" to explain their initial opinions and/or beliefs about traffic. Then prompt students to share how their thinking has shifted, starting with "But now, I think…" Ask students to elaborate on why their thinking has changed.

Self-assessment

Have students write a short reflective writing piece about an experience where they or someone else did not follow a passenger or driving safety rule.

- Summarize the experience
- Who were they with?
- Where were they?
- Why was the safety rule not followed? Who made the decision?
- How did the experience make them feel?
- What were the possible consequences?
- What would they do differently next time?

Peer pressure

Time requirement

This learning plan will take one session to complete.

Inquiry question

What is peer pressure? Can peer pressure be both good and bad?

Learning objectives

Students will:

- Recognize different types of spoken and unspoken pressure
- Name different types of spoken and unspoken pressure
- Demonstrate different types of spoken and unspoken pressure
- Name the feelings that spoken and unspoken pressure can generate
- Conduct a self-assessment/self-reflection

Reflect and connect

Ask the students to provide examples of situations where one friend talks another friend into doing something positive (picking up garbage on the playground, playing with a new student, joining the soccer team).

Then ask them to provide examples of situations where one friend talks another friend into doing something negative (bullying another student, cheating on a test, stealing from somebody). Ensure the students understand that peers are friends or classmates who are about the same age, and that peer pressure is when friends or classmates try to influence the decisions of others. Explain that peers can influence others into making wise decisions (positive peer pressure) or poor decisions (negative peer pressure), as seen in the examples above. Discuss with the class the desire most people have to be liked and accepted by their peers; however, at some point they may be faced with the responsibility of refusing to engage in an activity that they know to be wrong (bullying, stealing, taking drugs, etc.).

Question and investigate

What is peer pressure? Write the definition on a flip chart or board and then ask students to expand it by sharing their personal experiences.

Peer pressure:

- Social pressure from members of your group to accept certain beliefs or act in certain ways in order to be accepted
- Peer pressure is the powerful feeling of pressure from someone your own age that can push you toward making certain choices, good or bad
- Peer pressure can take a number of different forms, both spoken and unspoken, and can lead to risky, disapproved or personally unwanted behaviour

Watch and Listen

Watch *The Knight and the Dragon* by Tomie DePaola on YouTube (3:40 min.)

Watch the video, stopping often to discuss what is going on in the story. Be sure to discuss what was expected of the dragon and the knight and the choices they made. Then emphasize that the dragon and the knight finally made their own choices and didn't give into the peer pressure. Then discuss the definition of peer pressure.

Question and investigate

Write the following questions as column headers on the board. Ask students to brainstorm answers to each question. In the spirit of the subject (peer pressure), make it clear that all answers are acceptable — students are not allowed to laugh or make negative responses to others' answers.

- What evidence of peer pressure exists in this classroom? Possible answers might include the way kids dress, the kinds of backpacks or notebooks they carry, where kids sit, or hairstyles.
- How do kids communicate messages of peer pressure? Possible answers might include giggling, talking about other kids, using put-downs, ganging up on someone, starting rumours, leaving kids out, or laughing at someone.
- How can peer pressure get kids into trouble? Possible answers might include by forcing kids to do something they shouldn't just to be accepted, by excluding kids who may have good things to contribute.
- When is peer pressure a good thing? Possible answers might include when it keeps kids out of trouble, when it encourages kids to participate in healthy activities, or when it works toward unification instead of divisiveness.

Summarize

Ask students to summarize peer pressure by completing the following sentences. Write the sentences and students' answers on the board.

- Peer pressure is POSITIVE when...
  (Possible answers: it encourages kids to have healthy values, positive attitudes and actions, a spirit of supportive teamwork, etc.)
- Peer pressure is NEGATIVE when...
  (Possible answers: it encourages kids to get into trouble, have bad attitudes, alienate other kids, etc.)

Reflect and connect

- Stress that influence or pressure can be both a positive and negative thing (e.g., friends can influence you to wear a restraint and also to not wear a restraint) and that sometimes it can be our own thoughts that influence us to do something unsafe (e.g., we think that others might think we are not cool if we choose to use a seatbelt)

Experience

- Have the students form groups of three or four to think of and discuss one positive and one negative example of peer pressure that they've experienced or witnessed within the past week. Students may have personally experienced the pressure, seen pressure exerted on someone else, or even exerted pressure themselves
- Ask groups to discuss how they feel when they are peer pressured (powerless, confused, scared, worried, angry, stupid, disrespected….)
- Have students stay in their groups and create a skit dealing with how to handle peer pressure in a positive way. When students are finished writing their skits, have them perform the skits for the class and have a class discussion after each one.
- Example:

  Scenario — What would you do?

  – Characters:
    - Samantha — a Grade 5 student
    - Nicky — Samantha's friend
    - Jeanie, Samantha's little sister
    - Jeanie and Samantha's mom

- Setting
  - Driving to school
- Action:
  - Jeanie and Samantha's mom is driving the kids to school. She is talking on her cellphone, hands-free.
  - Samantha is in the front seat listening to music with headphones on. Little Jeanie is sitting in the back seat.
  - They stop to pick up Nicky. Nicky gets into the vehicle and notices that Samantha is not wearing a seatbelt and Jeanie is not in a booster seat. The girls' mom waves at Nicky and continues to talk and laugh on the phone. She doesn't check to see if Nicky puts on a seatbelt.

Self-assessment/self-reflection

Have students write a short reflective writing piece about a scenario where they experienced positive or negative peer pressure.

- Summarize the scenario.
- Who were they with?
- Where were they?
- Was the peer pressure positive or negative? Why?
- How did the experience make them feel?
- What were the possible consequences?
- What would they do differently next time?

Go beyond

- Have the students perform the skits for younger students
- Invite parents to come and view the skits

Slow down!

Time requirement

This learning plan will take two sessions to complete.

Inquiry question

If speed is one of the leading causes of death on B.C. roads, how can we prevent speeding and the high numbers of fatalities and injuries that occur as a result?

Learning objectives

Students will:

- Demonstrate an ability to travel at slow, medium and fast speeds while moving to a rhythm or beat
- Identify speed limit traffic signs
- Explain the importance of limiting speed in school zones, playground and in town
- Identify signs and signals and their meaning

Materials and resources

- Small hoop or rings (anything that can be a steering wheel)
- Cones or markers
- Music that alternates between very slow, medium and very fast tempo
- Images of school zone speed limit, in-town speed limit and highway speed limit
- Statistics on death/injuries related to speeding


MAXIMUM
50
km/h


MAXIMUM
70
km/h


30 km/h
8 AM - 5 PM
SCHOOL DAYS


MAXIMUM
30
km/h

Reflect and connect

Speed is one of the leading causes of death on B.C. roads. It is also a behaviour that is very easy to eliminate — **Just. Slow. Down.** Speed increases the risk of vehicle collisions — it comes with a high price. Crashes causing damages and injuries take a huge toll on insurance and other costs; however, from a public safety perspective, the greatest cost of speed is trauma and human life.

Speed is a significant factor in the number of fatalities and the number and severity of the injuries that result from road crashes. It is clear that reduced speeds not only reduce the likelihood of a crash but also reduce the severity of injuries when crashes occur. (Source: Government of B.C.)

Inquiry

Lead a discussion about traffic on the road, moving slow versus fast, which side of the road is used for passing, and spacing between vehicles. Review the concepts of fast, medium and slow speeds, and when vehicles go fast and when they go slow

In Canada, we measure speed on the road in kilometres per hour. Ask if anyone knows the speed limits for vehicles. What is the speed limit for trains? (Answer: 100 kilometres/hour.) Are vehicles allowed to go the same speed on every road? Explain that vehicles are to go slow (30 kilometres/hour) in school zones, and can go fast (100 kilometres/hour) on the highway and medium-fast (50 kilometres/hour) in town. Show the speed limit signs.

Questions

- How fast is 100 kilometres/hour? It takes about 36 seconds for a train or vehicle to go 1 kilometre. One kilometre is 10 football fields or roughly the distance you can walk in 15 minutes.
- How far is it from the school to home? How long does it take you to walk/drive?
- How far do you think a train travelling at 100 kilometres/hour will travel before it stops? Answer: More than 1 kilometre!
- Explain that children are sometimes injured by trains and vehicles — people don't expect the train or vehicle to come that quickly or they think they can cross the road or tracks before the train or vehicle comes

Distance calculation

To help students estimate distance and develop a sense of distance, this activity shows them a pacing technique.

Question and investigate

Ask the students how they might calculate the length of the playground or football field. Explain that they can calculate it using a pacing technique:

- Go to the playground or football field and have the students measure their pace (step) using a tape measure. Have them figure out their pace for 5 metres, then 10 metres.
- Once they know how many steps it takes them to go 10 metres, they can use their pace to figure out the length of the playground or football field
- Have them figure out the distance around the school
- How far is it from the school to home? How long does it take to walk home? To their friend's place?

Speed, time, distance

- How far do you think a train travelling at 100 kilometres/hour will travel before it stops? Answer: More than 1 kilometre!
- Explain that children are sometimes injured by trains and vehicles — people, especially children, don't expect the train or vehicle to come that quickly or they think they can cross the road or tracks before the train or vehicle comes

Problem-solving

Write the following problems on the board and then ask students to decide what further information, if any, is required to complete the problem.

- A car travelled for 3 kilometres. How long did it travel?
- Sam walked for 5 kilometres. What was Sam's average speed?

Explain that an average speed can be determined if the length and time of the motion are known. Likewise, the length of motion can be known if the average speed and the time of the motion are known. Write the following problems on the board and ask the student to solve them using the problem-solving formula. When one has two of distance, speed or time, the third is easy to find.

Problem-solving formula

Distance = Speed × Time
Speed = Distance/Time
Time = Distance/Speed

Distance, Speed and Time Problem-Solving Strategies

- Write down what is known and what is unknown
- Write down what you want to find
- Convert all units to be the same (kilometres to metres, minutes to seconds, etc.)
- Write out all equations that need to be used
- Draw a diagram of the situation

Example: It takes Bryan 10 minutes to walk to the store, which is 1.2 kilometres from his home. What is Bryan's average speed in metres/second? (Answer: 2 metres/second.)

Solution

Know:	Want:
t = 10 minutes	s = ?
d = 1.2 kilometres	

Convert time from minutes to seconds, and distance from kilometres to metres.

Explore and investigate

Write the following problems on the board and ask the student to solve them using the problem-solving formula.

- A car drove 8 kilometres in 12 minutes. What was the average speed?
- If the speed limit is 50 kilometres per hour, and the car drove for 2 hours at 10 kilometres over the speed limit, how far did the car go?
- How long will it take a car going 100 kilometres/hour to go 3 kilometres? (secs)
- How long will it take a car going 50 kilometres/hour to go 3 kilometres?
- If you rode your bike at 2 kilometres an hour for 12 kilometres, how long will it take to finish your ride?
- Let's say you walk to school every day — calculate your average speed if it takes 30 minutes to go 1.5 kilometres

Activity — Design a road safety technology

Begin by reading and discussing **the Evolution of Road Safety**.

Then have the students, in groups of two or three, design a new technology that could save pedestrian lives. They will begin by brainstorming all the information/research/people they need to design this technology. How will it save pedestrian lives? Why is the technology needed? What problem will it solve? Teams can use the library to conduct research or can also research ideas online.

Have the teams illustrate and label their design, create a slogan for their strategy as well as a persuasive presentation on why their new technology will save lives and should be implemented. The presentation can be in any format they choose. For example:

- A PowerPoint presentation
- A poster
- A video
- A web page
- A magazine article
- A Public Service Announcements (PSA): PSAs are messages, often in the form of TV commercials, that share a message about health or safety concerning the general public. Samples can be found on the PSA website.

Have the students present their new technology at a parent night or school assembly or at a community forum.

The Evolution of Road Safety

As we take a look back at the evolution of road safety, it's interesting to see how much has changed, most of which within the last 200 years. From the horse-drawn carriage to sensors, cameras, and Bluetooth technology, a lot has happened in the road safety sphere over the past few decades and I can't wait to see what happens in the future.

Horse and carriage accidents

While the term "road safety" instantly conjures up images of today's modern cars, road accidents were occurring even before the invention of the motor vehicle.

The humble horse and carriage, when used as both a goods and passenger conveyer, combined with a lack of road rules resulted in numerous accidents, injuries and deaths.

You might think roads with slower and fewer vehicles would lessen the risk of accidents, but the ease in which people could be ejected from an open cart, combined with a vehicle that is powered by a horse, which is susceptible to spooking from the smallest of actions, means that carriage accidents resulted in legitimate injuries and even death. Goods were also severely destroyed when thrown from a cart.

The invention of the car

The invention of the first car is preceded by two important inventions:

- 1807 — François Isaac de Rivaz designed the first car that was powered by an internal engine fuelled by hydrogen
- 1865 — Siegfried Marcus built the first gasoline-powered combustion engine

De Rivaz's design and Marcus' build were simply elements of what could be, until Karl Benz combined the two ideas and developed a petrol-powered automobile around 1885.

Not long after we started driving cars, however, we also started getting injured by them. The following inventions were designed to reduce that risk.

Indicators

We chastise those who neglect to use them today, but did you know that electric turn signals were not fitted in cars until 1938? Mechanical turning signals were developed earlier, and before those, hand signals were used to indicate your intentions to other drivers.

Lap seatbelt

The lap seatbelt is also referred to as a "two-point" seatbelt, as it extended across the waist from one side of a person to the other. The concept is similar to the modern-day aircraft seatbelt. This design was invented in the early 1900s.

Australia

Australian law required all car occupants to use fitted seatbelts in 1973. It became compulsory in Victoria and South Australia a few years earlier.

Canada

In 1976, Ontario became the first Canadian province to introduce mandatory seatbelt laws. The rest of the country subsequently followed.

United Kingdom (U.K.)

In the U.K., many governments fought for seatbelt legislation (in terms of compulsory wearing) throughout the 60s and 70s. Fitting became mandatory in 1967, but wearing did not become mandatory until 1983.

United States (U.S.)

The U.S. introduced mandatory seatbelt installation as early as 1961 (in Wisconsin); however, the first state to pass the law of mandatory wear was New York in 1984. Laws vary considerably state by state.

Three-point seatbelt

The three-point seatbelt is just that: a belt that is, in appearance, a combination of the lap belt combined with a diagonal 'sash' belt. The three-point seatbelt is standard in most vehicles today.

Volvo introduced the three-point seatbelt in 1959. Volvo patented the design, but "in the interest of safety, made it available to other car manufacturers for free" (Source).

You might notice in slightly older cars that the centre seat in the back still has a lap seatbelt. Newer cars have replaced this belt, too, with the more modern (and safer) three-point seatbelt.

Road signs

Did you know that Detroit was the first U.S. city to use stop signs, lane markings and traffic signals? Around 1908, the city realized the sheer volume of people driving around with no experience (remember, anyone could drive without restrictions) and no boundaries — in terms of signage — was resulting in what the city believed to be avoidable deaths.

The first traffic lights

Traffic police would control the flow of traffic until 1914, when the first set of red and green traffic lights were successfully installed in Cleveland, Ohio. The first three-colour traffic light was invented by police officer William Potts in Detroit, Michigan in 1920.

Airbags

Airbags have had a rather long history. The idea was first conceived in 1941, and a decade later, American John W. Getrick patented the first airbag use.

By the 70s, traction slowed, as it was discovered that airbags didn't work as effectively with lap seatbelts. As three-point seatbelts grew in popularity, manufacturers began creating airbag solutions to work in conjunction with this safer belt.

In the U.S., all cars produced after 1998 require airbags. Since then, an average of 2,000 lives a year are saved by airbags.

Reverse cameras

Rear-facing technology is a great tool for those of us who rely on a little more help when reversing and parking. It is also helpful for those with small children by literally giving us eyes in the back of our heads. Audio cues alert you to close obstacles while the camera helps make some manoeuvring tasks easier.

Bluetooth

No matter how much it's drilled into our heads, there are still people foolish enough to think it is OK to continue using a hand-held device — like a smartphone — while behind the wheel. Bluetooth technology lets us answer calls and change the music without looking away from the road or taking our hands off the wheel.

The future of road safety

Now that we've caught up to the present, there's no better time to take a quick look into the future of road safety.

Video technology begins to replace mirrors

In June 2016, Japan became one of the first countries in the world to replace side mirrors with video technology. The goal is to eliminate potentially hazardous "blind spots" as well as removing a mirror's obstruction due to weather conditions like rain or glare.

Technology replaces drivers

Of course, no conversation about the future of road safety can happen without mentioning autonomous or driverless vehicles. Autonomous vehicles are advancing at a steady rate through many small victories, rather than fewer and larger breakthroughs.

Physical Education Activity — Danger zone

In this game, students will listen to the music. If the music is slow (school zone) the students will move slow. If the music speeds up (highway) the students can move fast.

- Place the cones or markers in each of the four corners in the gymnasium. Divide the students into teams of four and have them go to one of the cones in the corner. This will be their driveway. Give them a hoop or ring to be a steering wheel.
- When the music starts, everyone pulls out of their driveway (cone area) and drives slowly (walk)
- As the song goes faster, the students can too! If they want to pass anyone, do so on the left. This is just like you are passing on the highway.
- When the music is very fast the children will be running as fast as they can — the teacher continues to give feedback to students on safe spacing and moving
- Students return their "steering wheels" to their "driveways"

Reflect and connect

- Discuss and review the concepts of slow versus fast
- When they were speeding, did they have the same control they had when walking?
- Why is it important for vehicles to go slow in a school zone?
- Why do they think that police officers monitor speed and give speeding tickets to drivers going too fast?
- Why do they think that speed bumps are placed in zones where vehicles should go slow?
- Why is it dangerous for pedestrians if vehicles are speeding?

We have learned that speed is one of the leading causes of death on B.C. roads and that speed is a significant factor in the number of fatalities, as well as the number and severity of the injuries that result from road crashes. It is also a behaviour that is very easy to eliminate — **Just. Slow. Down**.

Questions

- If it is that easy to eliminate, why does speeding continue to occur?
- What are the police, ICBC and cities doing to try to prevent speeding?

Distracted and impaired driving

Time requirement

This learning plan will take two sessions over a one-week period to complete.

Inquiry question

What is distracted driving and what is my responsibility as a passenger?

Learning objectives

Students will:

- Role-play to build an understanding of passenger safety and responsibility
- Identify distracted driving
- Identify safety risks associated with distracted driving
- Ask questions and make predictions and share observations orally
- Make and record predictions and observations
- Collect, organize and interpret data
- Compare experiment results and share with others
- Conclude and illustrate and write experiment results
- Conduct a self-assessment/self-reflection

Materials and resources

- Five chairs (two in front and three behind)
- Distracted driving statistics
- Statistics on the number of distracted driving violations

Investigate through role play

- Organize the five chairs to represent the seating arrangements of a car (two in front and three behind)
- Ask for a student volunteer to be the driver of the car, two students to be the back-seat passengers and one student to be the front-seat passenger

Role-play driving to school with:

- The back-seat passengers sitting quietly
- The front-seat passenger giving directions such as:
  - Drive
  - Traffic signal ahead — slow down
  - Stop
  - Go
  - Turn right
  - Pedestrian crossing ahead — slow down and watch for pedestrians
  - Go
  - Turn left
  - Slow down — school zone
  - Traffic signal ahead — slow down
  - Stop
  - Go
  - Turn right into the parking lot
  - Pull up along the curb and stop

Role-play driving to school again, this time with:

- The back-seat passengers making a lot of noise and asking the driver questions
- The front-seat passenger giving directions such as:
  - Drive
  - Traffic signal ahead — slow down
  - Stop
  - Go
  - Turn right
  - Pedestrian crossing ahead — slow down and watch for pedestrians
  - Go
  - Turn left
  - Slow down — school zone
  - Traffic signal ahead — slow down
  - Stop
  - Go
  - Turn right into the parking lot
  - Pull up along the curb and stop

Question

- What did you notice about the driver with quiet passengers?
- What did you notice about the driver with noisy passengers who were asking questions?
- What might happen if a driver wasn't able to concentrate on driving?
- What other things might distract the driver?

Go beyond

Travelling through distractions — gymnasium or playground game.

Divide the class into two teams: those who travel and those who throw balls.

Team One — walking students

- Students walking across the playing field simulate cars and pedestrians
- Select three student volunteers to walk across the playing field to demonstrate
- Students begin on the end of the field
- Signal the students to cross from one end of the playing field to the other
- As they walk, students try to avoid balls rolled towards them
- If a student is touched by a ball or another player, they are to join the group of students rolling the balls
- Have half the students walking while the other half are rolling the balls

Team two — students who roll balls

Students rolling the balls are simulating possible dangers that we might encounter when travelling, such as pedestrians crossing, cyclists, and animals crossing the street.

- Place the students rolling the balls on the sides of the playing field
- Give each student one ball
- Students must roll their ball in order to touch the students crossing the playing field
- Before students roll their ball, they must give a verbal or non-verbal warning of their intention by calling out the name of the student they intend to hit or giving an arm signal as a warning
- Once a ball has been rolled, it must be retrieved by the thrower

In order to encourage students to reflect on the various distractions they encounter when travelling, the game must be played three different times. The first time, students walking across the playing field will do so without distractions, simulating an ideal travelling situation. The second time, students crossing will have a hearing impairment — they will be listening to an iPod or the teacher will play very loud music, simulating travelling situations with hearing distractions, such as driving a car with loud music. The third time, students crossing the playing field will have a visual impairment — they will be blindfolded, simulating visual distractions when travelling, such as texting.

Teacher note:

Always be wary of student safety. You might choose to add safety guidelines before and during the game if necessary.

Investigate, reflect and connect

Sadly, each year in B.C., 78 people die in crashes involving distracted driving and 68 people die in crashes involving impaired driving.

Distracted driving is a serious problem. It is estimated that over 9,500 drivers are using a hand-held device while driving at any given time in B.C., with 40% of those drivers texting behind the wheel. In B.C., the fine for a distracted driving violation ticket is $368, along with 4 penalty points that will be applied to a driver's record. On a first infraction, these points will also result in a driver paying a further $210 ICBC Driver Penalty Point premium, for a total of $578 for a first infraction. Drivers with two or more convictions could pay $2,400.

According to data from ICBC, between 2010 and 2016, police handed out more than 300,000 tickets for distracted driving.

Impaired driving is a serious problem. B.C. has the toughest drinking and driving laws in Canada. If someone is caught driving impaired (over .05 blood alcohol concentration), they could lose their driver's licence and vehicle from 24 hours to 90 days, pay fines from $600 to $4,060, do jail time, and face mandatory rehabilitation and even the installation of an ignition interlock in their vehicle.

If someone's blood alcohol concentration (BAC) is .05%, that means they have 50 milligrams of alcohol in 100 millitres of blood. Roughly one drink in one hour will keep BAC under .05%. Learn the facts behind impaired driving in B.C.

According to data from the Uniform Crime Reporting (UCR) survey, police reported 90,277 impaired driving incidents in Canada in 2011, about 3,000 more than in 2010.

Question, predict and investigate

- Brainstorm and record all the things that might distract a driver
  - Texting
  - Talking on the phone
  - Using an app
  - Checking the GPS
  - Reading a map
  - Applying makeup
  - Searching for music on the radio or music player
  - Eating or drinking beverages
  - Hands-free calling
  - Passengers
  - Turning around to talk to someone
  - Drug or alcohol use
- Are there environmental factors that might distract a driver?
  - Searching for a parking spot
  - Weather conditions
- Are there personal driver-related factors that might distract a driver?
  - Stress
  - Anger or sadness
  - Alcohol, drugs, medication
  - Overtired
  - Not well
  - Hungry
  - Driving too fast
- Are there vehicle-related factors that might distract a driver?
  - Cracked windshield
  - Engine trouble
  - No headlights

Using the brainstormed list, have each student create a tally sheet to take home. Predict what might be the most common distraction and predict how often distractions might occur. Have each student take home the tally sheet and have them record each instance of distracted driving they see and bring it to school every day for a week. Are some distractions harder to detect than others?

Explain that all distractions are impairments — they impair the driver from concentrating and focusing.

Make a giant wall poster with all the distractions/impairments. Every morning, review the results from each student and note the instances on the wall poster.

Activity sheet

Distractions/Impairment	Predictions	Results
Texting		
Talking on the phone		
Using an app		
Checking the GPS		
Reading a map		
Applying makeup		
Searching for music on the radio or music player		
Eating		
Passengers		
Turning around to talk to someone		
Extreme weather conditions		
Alcohol or drugs		
Stress, anger, or sickness		
Cracked windshield		
Vehicle problems (low on gas or low tire, for example)		

Experience

- How many instances of distracted/impaired driving did the students see? Which was the most common?
- Can the students anticipate some of the safety risks associated with distracted and impaired driving?

Explore

- In B.C. the violation ticket is $368. If the minimum wage is $13.85 an hour, how many hours would you have to work to pay for one violation ticket? Driver penalty point premiums are $175? How many hours would you have to work to pay for that driver penalty point premium?

Investigate and graph

- Graph the results on large poster paper and hang the poster on a bulletin board.
- How many violation tickets would the class have handed out?

Collaborate, design and present

- Group the students into teams of four and have them write an anti-distracted driving slogan and poster
- Invite parents into the classroom and have the students present their slogans, posters and results of their survey

Campaign to end distracted driving

Have the students present their findings at a parent night or school assembly.

Family pledge

Have the students take home 'the truth about distracted driving' pledge and have a parent or guardian sign it.

Activity sheet

The truth about distracted driving

The facts

- The distracted driving law applies whenever you're in control of your car—even when you're stopped at a light or in bumper-to-bumper traffic.
- You're five times more likely to crash if you're on your phone.
- Studies show that drivers who are talking on a cellphone lose about 50 per cent of what's going on around them, visually.

The rules

- Any violation of the law costs drivers a $368 fine and four driver penalty points.
- Hands-free means a wireless or wired headset or speakerphone.
- If you're using a headset or headphones, remember that drivers can only wear them in one ear. Motorcyclists however, can use two earphones while riding.
- Drivers in the Graduated Licensing Program (GLP) are not allowed to use personal electronic devices at any time, including hands-free phones.

Tips for drivers

- It can wait. No call or text is so important it's worth risking your life.
- If you can't leave your phone alone while driving, turn it off and put it in the trunk of your car to avoid the temptation.
- Assign a designated texter. Ask your passengers to make or receive calls and texts for you.

Pledge

I _____ **pledge to leave my phone alone while driving.**
(first name only)

TS405N (082016)

Self-reflection

I used to think… But now, I think…

This thinking routine helps students reflect on *how and why* their thinking about a topic has changed. To begin, ask students to consider what "I used to think…" to explain their initial opinions and/or beliefs about distracted driving. Then prompt students to share how their thinking has shifted, starting with "But now, I think…" Ask students to elaborate on why their thinking has changed.

Self-assessment

Have students write a short reflective writing piece about an experience where they distracted a driver or when their driver was distracted while driving.

- Summarize the experience
- Why was there a distraction?
- What was the distracted behaviour?
- Who was distracted?
- Why were they distracted?
- How did the experience make them feel?
- What were the possible consequences?
- What would they do differently next time?

Go beyond

Invite a police officer or first responder to speak to the class.

Stop, think, go!

Time requirement

This learning plan will take two sessions to complete.

Inquiry question

What could you do to be responsible for your safety and the safety of others while riding in a vehicle?

Learning objectives

Students will:

- Demonstrate problem-solving skills
- Identify problems and make decisions
- Use a checklist at the beginning of every ride to be a road safety ambassador

Review the ICBC statistics from 2013 to 2017 by age group. Use a graphing tool to graph the results. What age group has the highest number of injuries? Why do you think this is?

Injured Vicitims by Age Category by Role (year 2013–2017 combined)

Age category	Pedestrian	Cyclist	Driver	Passenger	Other	Total
0–4	120	25	18	3,800	1,200	5,200
5–6	67	16	3	1,700	560	2,400
7–9	97	38	8	3,000	900	4,000
10–12	160	98	5	3,000	930	4,200
13–15	350	210	7	3,400	1,000	5,000
16–18	580	290	7,600	4,700	2,100	15,000
Other	11,000	7,600	280,000	53,000	54,000	410,000
Total	**13,000**	**8,200**	**290,000**	**73,000**	**61,000**	**440,000**

Who is responsible for passenger safety?

Explain to the class that passenger safety is everybody's responsibility, but the greater responsibility is on the driver. Every person must take responsibility for looking after their own safety. On the board, brainstorm with the class a list of potential safety issues that may confront students as passengers. As a class, develop a list of potential strategies students may use to reduce the risks. What could you do if your strategies did not work? For example, what could you do if the driver ignored you?

Explore

- Have students form groups of about three
- Give each group a scenario. Ask each group to demonstrate their problem-solving skills by using the problem-solving traffic light to:
  - **Red:** Stop and identify the problem. What does my friend want me to do? Is it something good or bad? Kind or mean? Healthy or unhealthy? Legal or illegal? Is it something you would do if your parents were watching?
  - **Yellow:** Wait and think: What could happen if I do it? Imagine any possible good results: Will you be doing something positive? Will you be helping someone? Imagine any possible bad results: Can you get hurt? Can you get in trouble? Can someone else get hurt or in trouble?
  - **Green:** Go! Make a decision and a plan. Should I do it? Will you be proud of your choice afterward? Would your parents be proud of your choice?

RED:	Stop and identify the problem. (What happened) What factors may have contributed to the crash – consider the pedestrian, the driver, the environment and the vehicle.
YELLOW:	Wait and think. Look at all the choices and their consequences (why did the crash happen) – consider the pedestrian, the driver, the environment and the vehicle.
GREEN:	Go! Make a decision and a plan (what could have prevented the tragedy).

Part 1 — Strategizing

What strategies could you use in these scenarios to ensure every passenger stays safe?

- Your driver is texting while driving
- Your driver is trying to find a destination in a navigation system while driving
- A passenger in the vehicle is tired and removes the seatbelt to lay down and sleep
- It is a dark, foggy, rainy evening — your driver is nervous driving with limited visibility
- You are a passenger and you see children playing ball near the road up ahead
- Your driver is busy and does not notice that the passengers in the back seat did not buckle up. (The driver is responsible for ensuring passengers wear seatbelts.)
- You want to go to your friend's place. Your driver has been drinking alcohol. Should you accept the ride?
- Real-Life Scenario — A driver turned at a corner and the passenger door flew open — a baby in a car seat flew out the door and bounced on the highway. Fortunately, the baby was protected in the car seat and was unharmed. In this scenario, who is at fault? What do you think happened? How could this have happened? What could have prevented it?

Part 2 — Be a road safety ambassador

With the class, brainstorm a passenger safety checklist. Examples could include:

- Are all passengers buckled in securely and correctly? Double-check.
- Are the doors locked?
- Is the route planned in advance?
- Is the driver free from distractions?
- Is the driver free from impairments?

Turn the brainstormed list into a checklist and give each student a copy to take home and use at the beginning of every ride.

Activity sheet — Analyze and critique

What could you do if your passenger safety checklist did not work? For example, what could you do if the driver ignored you when you reminded them to put their cellphone away?

Ready, set, go.... safety checklist	
Are the doors locked?	
Are all the passengers buckled in? Check — double-check.	
Is the driver free from distractions?	
Is the driver free from impairments?	
Did the driver put their cell phone away?	
Is the route planned in advance?	

Unit review

Time requirement

This learning plan will take one session to complete.

Inquiry question

What have I learned about my responsibility to myself and others while riding in a vehicle?

Learning objectives

Students will:

- Conduct a self-assessment/self-reflection
- Review what they learned in this unit
- Participate in a talking circle
- Collaborative design presentations to promote passenger safety skills

Reflect and connect (you will need a beach ball and strips of paper)

Brainstorm with the class what they learned in this unit and have them turn what they have learned into questions. Write all the questions they brainstorm on pieces of paper and give each student one or two. Have the students form a large circle. Grab a beach ball and toss it to one of the students. Ask them one of the brainstormed questions. The student answers the question and then tosses the ball to another student and asks them one of the prepared questions. Continue this process as time allows.

Possible questions:

- What is one thing you learned in this unit?
- Who is responsible for passenger safety?
- Why should passengers not distract the driver?
- Who is responsible for passenger safety?
- Is it legal for an adult to hold a baby tightly if there isn't a restraint available?
- IIs it legal to ride in the back of a pickup truck? What could happen? (Rick Hansen example)

Explore and present

- Post the topics of passenger safety rules not followed from the first lesson and assemble the students in small groups of three or four
- Allow the groups to choose one of the rules not followed that they have not worked on previously
- Ask the groups to make up a realistic scenario for this passenger safety rule and identify how the tactics, strategies and/or resources from the recent road safety discussions have made them better prepared to consider this situation
- Have each group choose a presentation format (skit, poster, video, song, poem, etc.) along the theme of "Friends don't let friends _____" to promote passenger safety skills to their peers
- When the students are ready with a first draft, pair up the groups so that they can offer constructive criticism on each other's presentations

Go beyond

- Have the students present their strategy
- Invite the principal, parents or other intermediate classes to attend. Ask each student to reflect on how their own attitudes and feelings might have developed through their work in preparing the poster, skits and strategies to speak up for road safety
- Invite students to share one thought or feeling with the class

Speaking to Communicate

Discuss with students that a talking circle is used with some First Peoples to create a safe environment in which participants can share their point of view with others. It is an opportunity to learn to listen and respect the views of others. The intention is to open hearts to understand and connect with one another.

Have the students sit in a circle. The circle represents completeness. Place a talking object (e.g., feather, rock, stick) in the middle of the circle. Explain the rules:

- Everyone's contribution is equally important
- State what you feel or believe starting with 'I statements', e.g., 'I feel…'
- All comments must be addressed directly to the question or the issue, not to comments that another person has made
- When a person has the talking object, it is their turn to share thoughts, without interruption, and others have the responsibility to listen
- The talking object is then passed to the next person in a clockwise direction
- If someone does not want to speak, they pass the talking object to the next person

Talking circle topic: What is one important thing you learned about being a responsible passenger? What does 'responsible passenger, responsible driver' mean? Ask students to share a time when they made a good choice in regards to passenger safety that contributed to their well-being and/or the well-being of others.

Self-assessment/self-reflection

Have students write a short reflective writing piece about what they learned from their passenger safety checklist and what they learned about their responsibility to keep themselves and others safe while in a vehicle. How can they recognize and avoid peer pressure in situations that might be hazardous (for example, your driver says it is OK to ride in the back of the pickup truck, just this once)?

Campaign for passenger safety

Time requirement

This learning plan will take two sessions to complete.

Inquiry question

How can I protect myself and others from potentially hazardous passenger situations?

Learning objectives

Students will:

- Collaboratively create a PSA to raise awareness and advocate for pedestrian safety with an aim to promote the safety of oneself and others
- Review statistics on crashes involving passengers
- Demonstrate that doing something is better than doing nothing at all

Materials and resources

- Statistics on passenger fatalities and injuries

Reflect and connect

Did you know that each year in B.C., an average of 1,300 children aged 9 and under are injured, and five are killed in motor vehicle crashes? Every time a child travels as a passenger in a motor vehicle, they are at risk of being involved in a collision.

Explore, design and present

In groups of two or three, have students collaboratively create Public Service Announcements (PSAs) about passenger safety. Each group can choose their area of interest (buckle up, distracted driving, speeding, drinking and driving, etc.).

- Explain to the class that Public Service Announcements (PSAs) are messages, often in the form of TV commercials, that share a message about health or safety concerning the general public. Show some samples from the PSA website. Discuss how making the public aware might change people's attitudes and behaviour.

- Show the students some advertisements advocating for passenger safety. Ask students to consider how effective these advertisements are and who they might appeal to. Ask students if they think any of these advertisements change perceptions about wearing seatbelts and driving safely.
- Explain that students will be working in pairs or small groups to produce a PSA
- Have the teams present their PSAs

Go beyond

- Make a display in the school reception area for parents or create online versions and share them through the school website, email newsletter or social media; you could also invite parents to a special assembly and present your advertisements
- Display the posters in the community

Extensions

- Have students create a video "infomercial" explaining their project (use some basic footage of the site to eliminate the need for the student groups to be on-site when filming)
- Have students adapt their project into a comic book or a flip book
- Encourage students to write a letter to the local municipality/region to share their recommendations for improving the safety of the local crossing(s)
- Invite a local police officer to come talk to the class about distracted driving
- Invite an Elder or a member of the community to come into the classroom and share a story

Feedback and suggestions?

ICBC welcomes your questions, suggestions, and feedback at learningresourcefeedback@icbc.com.

unit 3
bicycle safety

Determining prior knowledge

Time requirement

This learning plan will take one session to complete.

Inquiry question

Why do communities have rules? What are some rules that we have to follow in our community? What do I already know about hazards and potentially unsafe situations in relation to bicycle safety? What do I already know about bicycle safety rules?

Learning objectives

Students will:

- Determine what they already know about bicycle safety
- Identify when and why they or someone they know has not followed a bicycle safety rule
- Conduct a self-assessment/self-reflection

Materials and resources

- Whiteboard or flip chart
- See how many crashes involving cyclists, and motorcyclists are happening across B.C.
  - Cyclists
  - Motorcycles

Reflect and connect

Why do communities have rules? What are some rules that we have to follow in our community? What do I already know about bicycle safety?

Investigate

- What bicycle safety rules do they know?
- What does it mean to be a safe cyclist?

- Have you ever done something to help someone else be a safe cyclist?
- How do you know when someone (including yourself) is not being a safe cyclist?
- Discuss the difference between "not knowing a bicycle safety rule" versus "choosing not to follow a bicycle safety rule" when it comes to bicycle safety

Explore

Explain that cyclists, like pedestrians, are vulnerable to significant injuries or death in crashes with cars. While the top contributing factors attributed to crashes involving cyclists are driver distraction and failure to yield, cyclists have responsibility for staying safe.

Explain that young people are often motivated by the short-term gain of impressing their friends over the longer term concerns of health and safety. Young people often listen to music, or choose not to wear a helmet, or choose not to follow bicycle safety rules while cycling.

Experience

Explain that in the following exercise you will ask students to respond anonymously. You might wish to establish some ground rules:

- Respect the diversity of responses
- Do not judge the comments made
- Do not try and identify your classmate's comments (e.g., by comparing handwriting)

Question and Investigate

Hand out two slips of paper to each student. On the first slip of paper, ask students to write two or three incidents when they were not a safe cyclist.

- Collect the notes, and record (or have a few students record) and number of unsafe passenger events that occurred
- Keep these slips of paper (or a record of the list) as they will be used again at the end of the unit
- If there are very few rules not followed on the board, ask students to list a few other bicycle safety rules that they may have seen other people ignore or disobey
- On the second slip of paper, have students write down all the numbers of the bicycle safety rules not followed that apply to them
- Collect these papers and record the tally for each of the responses on the board

As a class, discuss the results:

- If there are very few rules not followed, congratulate the students on their bicycle safety practices
- What do they believe is the reason for this good behaviour?
- Have they seen other students or adults not following bicycle safety rules (without naming names)?
- If there are a lot of rules not followed, hold a short discussion about the rules that are most commonly not followed and the risks of not following them
- Encourage the students to talk about these rules and be sure to convey a sense of the seriousness of this discussion
- What are some of the factors that prompt people to not follow bicycle safety rules?
- Are there circumstances that might get in the way of following bicycle safety rules (e.g., running late for school, fighting with siblings)?

Go beyond

Invite your local police officer to discuss bicycle safety rules and their importance.

Self-assessment/self-reflection

Have the students complete a self-assessment/self-reflection. Have students write a short reflective writing piece about an experience where they or someone else did not follow a bicycle safety rule.

- Summarize the experience
- Who were they with?
- Where were they?
- Why was the safety rule not followed?
- Who made the decision?
- How did the experience make them feel?
- What were the possible consequences?
- What would they do differently next time?

Rules of the road

Time requirement

This learning plan will take two sessions to complete.

Inquiry question

What does it mean to be a safe cyclist? What hazards do cyclists face? What are the rules of the road? What are the most common cyclist injuries? How might they be prevented? Is the bicycle route to school safe?

Learning objectives

Students will:

- Determine prior knowledge
- Identify rules of the road
- Identify safe ride scenarios
- Complete a self-assessment/self-reflection

Materials and resources

- *Getting ready to ride* activity sheet on page 139
- *Picture a rule* activity sheet on page 143
- *The saft ride* activity sheet on page 145
- Videos:
  - *Getting Ready to Ride* (2:16 min.)
  - *Riding for Real* (2:49 min.)
  - *Bike Handling Skills* (2:34 min.)
  - *Bicycle Safety: Getting Doored* (1:00 min.)
  - *Bicycle Safety: Passengers and Peer Pressure* (0:43 min.)
- HASTeBC — 12 rules of the road

Reflect and connect

Brainstorm and list the bicycle safety rules that they know.

- Reflect on safety — be extra visible with reflective gear on your bicycle pedals and wheels
- Bike lanes are best
- Don't ride on the sidewalk
- Shoulder-check
- Wear a helmet
- Make sure you obey all traffic signs and signals, and adhere to the rules of the road
- Use caution around parked vehicles

Watch and Listen

Watch the following bike safety videos.

- *Getting Ready to Ride* (2:16 min.)
- *Riding for Real* (2:49 min.)
- *Bike Handling Skills* (2:34 min.)

Afterward, add to the brainstormed list of safety rules

Getting Ready to Ride (2:16 min.)

Dante introduces rules for safe bike riding, including how to use brakes and ride without wobbling. He shows how to use the shoulder check and hand signals to indicate when a bike is stopping or changing directions. He then talks about safe route planning to avoid busy streets and to be aware of where the crosswalks and traffic lights are situated.

Reflect and connect

Before going out on your bike, what skills do you need to ride safely? Know how to:

- Use your brakes for slowing down and stopping
- Shoulder-check: look over your shoulder to check beside and behind while riding in a straight line
- Communicate with hand signals, voice and/or a bell
- Make a turn: the steps include shoulder-check, signal, shoulder-check again, look left, look right and then look again towards where you're riding
- Plan your route using a map and/or what you know about your neighbourhood. Choose quiet roads. Plan to cross at major streets at traffic lights or pedestrian-controlled crosswalks. Try to avoid rush hour traffic.

What are the hand signals?

- Stop — Left arm outstretched, bent at elbow with forearm and hand pointing down, wide palm facing drivers
- Left turn — Left arm outstretched, pointing in the direction you are turning, wide palm facing forward
- Right turn — Right arm outstretched, pointing in the direction you are turning, wide palm facing forward
- Alternate right turn — Left arm outstretched, bent at elbow with forearm and hand pointing up, wide palm facing forward

What's the purpose of the alternate right turn?

- Although this isn't used often, it's worth knowing that it's possible to make a right turn signal with the left arm. Some cycling manuals suggest this signal because it can be more easily seen by drivers because a cyclist's left hand is closer to the sightline of an approaching driver.

When getting ready to ride a bike, what do you need to be wearing?

- A bike helmet that fits properly — it's the law
- No hood, hat, or baseball cap underneath the helmet — it interferes with proper helmet fit and peripheral vision
- Closed shoes — no open toes, flip-flops or bare feet, and laces and pant cuffs secured — that way they won't get caught in the chain

Watch and Listen

Riding for Real (2:49 min.)

Tiara focuses on safe biking with friends, pointing out the dangers of parked cars, and looking out for inattentive drivers. Children show safe cycling by riding in single file, hands on the handlebars, and moving in the same direction as the traffic and what to do when at a crosswalk or turning.

Reflect and connect

When riding your bicycle, what are the key points to remember?

- Follow all traffic signs — the rules of the road are the same for bikes and cars
- Ride on bike paths, or on the right side of the road. Ride one metre from parked cars, or one metre from the curb to avoid storm drains and debris at the side of the road.
- Pay attention — be prepared for the unexpected. Always be ready to stop.
- Be aware of car doors that might open into your path, and for pedestrians who might step out into the road to cross
- Keep both hands on handlebars (unless you're signalling) with two fingers over the brake levers
- Ride in a predictable straight line so that other road users know what to expect — don't ride up on sidewalks, wobble or do
- When biking with friends, ride in single file
- Think for yourself, even when riding with a friend or adult
- Don't assume that drivers or pedestrians can see you, even if you can see them
- Communicate before stopping or changing direction — use your hand signals, a bell and/or your voice ("passing on your left")
- At crosswalks, it's safest to get off your bike and walk across as a pedestrian
- Make eye contact with drivers at intersections before you cross to make sure that they see you
- When you're walking or biking make sure that cars have stopped in ALL lanes before proceeding

Watch and Listen

Getting doored

- *Bicycle Safety: Getting Doored* (1:00 min.)

Reflect and connect

One of the more common accidents bicycle riders face is the hazard of getting "doored". When a cyclist is doored, they can be flung into the air and into traffic, and the impact with the door itself can cause serious injuries. Not only can a dooring accident cause very serious injuries for a cyclists — it can also sometimes be fatal.

Watch and Listen

Bike Handling Skills (2:34 min.)

Tiara and children show safe bike skills (braking, shoulder checks, using hand signals, and riding in a straight line). Children are encouraged to pay attention to where they're going and to always let others know what they're doing by using hand signals, voice and bell.

Reflect and connect

Before going for a ride, what do you need to ride safely? Know how to:

- Use your brakes for slowing down and stopping
- Shoulder-check: look over your shoulder to check beside and behind while riding in a straight line
- Communicate with hand signals, voice and/or a bell
- Make a turn: the steps include shoulder-check, signal, shoulder-check again, look left, look right and then look again towards where you're riding

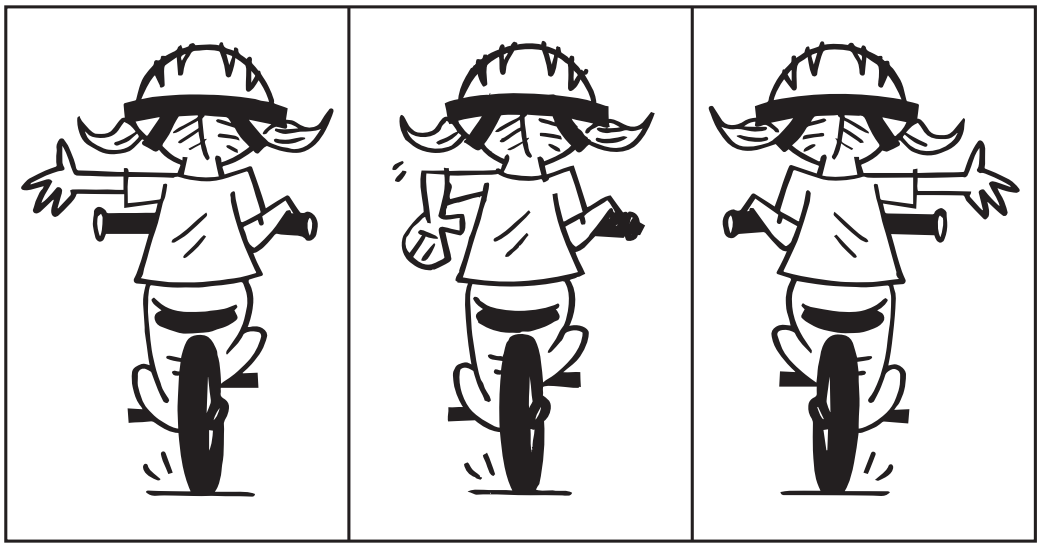
What are the hand signals? Review the *Getting ready to ride* activity sheet on page 139 and practise the hand signals.

- Stop — Left arm outstretched, bent at elbow with forearm and hand pointing down, wide palm facing drivers
- Left turn — Left arm outstretched, pointing in the direction you are turning, wide palm facing forward
- Right turn — Right arm outstretched, pointing in the direction you're turning, wide palm facing forward

Activity sheet

NAME _____ DATE _____

getting ready to ride



left **stopping/slowing** **right**

Ask questions why the rules are important for safety.

- Why do you need to wear a helmet? What could happen if you don't? How should you wear it?
- Why should you never buy a second-hand helmet?
- What is a concussion? What happens to your brain when you have a concussion?
- Why do you need to bike a safe distance from parked cars? Why do you need to ride about 1 metre from the curb?
- What do you need to think about when you cross railroad or streetcar tracks on your bike?
- Why is it a good idea to get off your bike and use your traffic-safety skills for walking when you cross a street at a crosswalk?
- Why it is important that your bike is the right size for you?
  - You may not be able to put your feet on the ground and may fall
  - You may not be able to balance properly if you have trouble reaching the pedals
  - You may have trouble stopping because you cannot reach the hand brake lever
- Discuss what bike injuries could happen if the safety rules are not followed
- What might distract a cyclist? (Answer: Headphones.)
- Are the safety rules the same for scooters, inline skates and skateboards?

Review

- The 12 rules of the road from HASTeBC

Rules of the road

Did you know? It's illegal for a cyclist to:

- ride on a sidewalk
- ride on a crosswalk
- ride on the left-hand side of the road
- ride abreast of another cyclist on a road
- ride with no hands on the handlebars
- carry a passenger on a one-seated bicycle
- ride on a highway that has "no cycling" signs
- tow a person on a skateboard or skates, or another bike behind his or her bicycle
- ride on bicycle attached to another vehicle (e.g., car)
- ride a bicycle between 1/2 hour after sunset and 1/2 hour before sunrise without a lamp mounted on the front of the vehicle, capable of illuminating the road 150 metres in front of the cycle, and a red light mounted on the rear of the bicycle
- ride a bicycle with broken or poorly functioning brakes
- turn or stop without signalling
- ride a bicycle without a proper helmet
- overtake and pass on the right side of another vehicle, unless:
  - that vehicle is turning left
  - there are more than two lanes (e.g., there is bike lane)
  - on a one-way street with two or more lanes for moving vehicles.

Explore hazardous road conditions

Discuss what might be hazardous road conditions for cyclists:

- **Narrow streets, no bike lanes:** Ride as far to the right as possible. Walk your bike through busy intersections.
- **Obstructions to visibility (curves, grades, corners):** Ride slowly. Keep scanning. Ride or walk your bike on the sidewalk if you can.
- **Poor lighting conditions (darkness, bright sunlight, glare of headlights):** Avoid riding at night whenever possible, but if you must, be certain you have the required front and rear lights and rear reflectors. Also wear light-coloured clothing: a reflective vest is a wise investment.
- **Bad weather (rain, sleet, fog, snow):** Just as motorists do, slow down for these conditions and make sure you're visible with appropriate clothing and equipment. Allow extra time for brakes to work and realize that motorists cannot see well in bad weather conditions.
- **Railroad tracks:** Railroad tracks should always be crossed at a 90-degree angle. Any other angle may cause your bike tire to get caught in the rail. Be sure traffic is clear before crossing.
- **Loose surfaces (gravel, leaves, dust, sand, snow) and slick surfaces (water; mud; wet metal, paint, or wood; oil; ice):** Slow down. If these conditions are unavoidable, be sure your turns are made before or after you cross them, so you and your bike won't go down.
- **Raised surfaces or objects (metal plates, lane markers, reflectors, raised driveways):** Keep an eye on the road in front of you as well as on the traffic around you. Always scan.
- **Holes (potholes, entrances, drains, grates):** Scan the ground ahead in order to turn away from these problems. Be careful riding through puddles; sometimes there are potholes underneath. If time or traffic doesn't allow turning, a quick jump by squatting down and then pulling up on the handlebars can get you over one of these obstacles.
- **Sharp objects (glass, sharp rocks, pins, staples, wire, sharp pieces of metal):** If you are forced to ride over sharp objects, stop your bike and clean the tire to avoid a puncture in your tire tube.

Experience

Picture a rule:

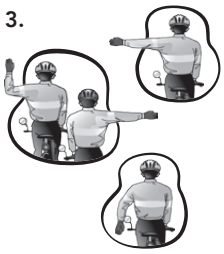
- Complete *Picture a rule* activity sheet on page 143

Activity sheet

Worksheet 3 — picture a rule

Here are some important **rules of the road** for cyclists. Below them are some pictures. Write the rule of the road beside the picture that it goes with. Then write a sentence explaining why that rule is so important. Share your explanations with others in a small group.

Watch for pedestrians. Beware of road hazards. Beware of parked cars. Signal before you turn or stop. Keep to the right of the road. Obey traffic signals. Be visible at night. Have front and back lights and back reflectors.

1. 	_____	5. 	_____
2. 	_____	6. 	_____
3. 	_____	7. 	_____
4. 	_____	8.	Draw your own rule _____

Did you know

Did you know that, under the *Motor Vehicle Act*, a person operating a bicycle:

- Must not ride on a sidewalk unless authorized by a bylaw made under section 124 or unless otherwise directed by a sign
- Must not, for the purpose of crossing a highway, ride on a crosswalk unless authorized to do so by a bylaw made under section 124 or unless otherwise directed by a sign
- Must ride as near as practicable to the right side of the highway
- Must not ride abreast of another person operating a cycle on the roadway
- Must keep at least one hand on the handlebars
- Must not ride other than on or astride a regular seat of the cycle
- Must not use the cycle to carry more persons at one time than the number for which it is designed and equipped
- Must not ride a cycle, skateboard, roller skates, inline roller skates, sled, play vehicle or other similar means of conveyance when it is attached by the arm and hand of the rider or otherwise to a vehicle on a highway
- Commits an offence if that person operates or rides as a passenger on a cycle on a highway and is not properly wearing a bicycle safety helmet
- Operated on a highway between 1/2 hour after sunset and 1/2 hour before sunrise must have the following equipment:
  - A lighted lamp mounted on the front and under normal atmospheric conditions capable of displaying a white light visible at least 150 m in the direction the cycle is pointed
  - A red reflector of a make or design approved by the Insurance Corporation of British Columbia for the purposes of this section
  - A lighted lamp, mounted and visible to the rear, displaying a red light

The safe ride

- Complete *The safe ride* activity sheet on page 145

Activity sheet

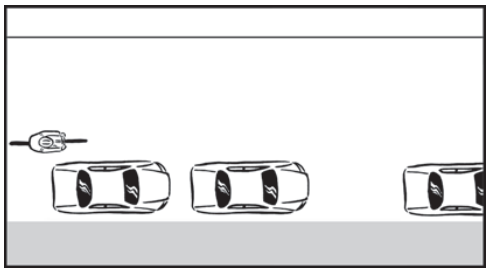
The safe ride

Imagine you are riding the bike in each diagram below.

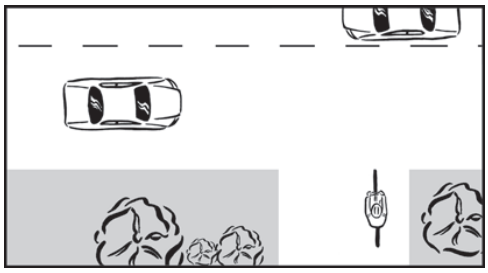
- What is the safest path to take? Draw it.
- What rules of the road will you follow? Write them under the diagrams.

Traffic rules

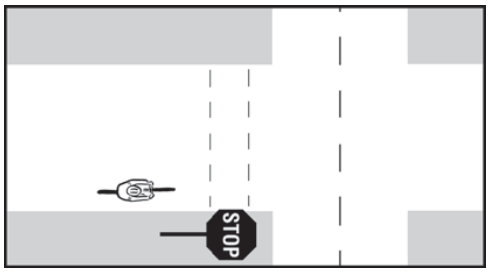
- beware of parked cars
- stop for stop signs
- look for traffic all ways
- slow down and look
- yield to traffic before crossing
- ride in a straight line
- shoulder check before turning
- use hand signals to tell other drivers what you're going to do
- ride on right hand side
- turn with care.



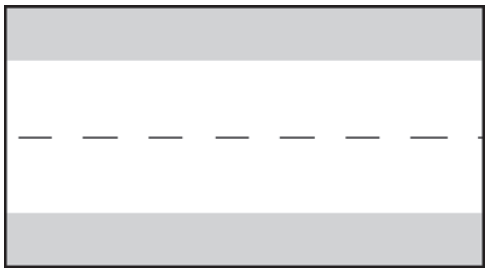
Riding past parked cars.



Riding out from a driveway.



Crossing an intersection.



Draw your own special cycling situation.

Self-assessment/self-reflection

Have the students complete a self-assessment/self-reflection.

Have students write a short reflective writing piece about a bicycle safety rule they learned from the videos that they had not been aware of.

- Summarize the rule
- Why is it important?
- What are the possible consequences if the rule is not followed?
- What will they do differently next time they go riding?

See, be seen and be safe

Time requirement

This learning plan will take two sessions to complete.

Inquiry question

What clothing, equipment is needed to see, be seen and be safe as a cyclist? Why is it important? How can I protect myself and others from cycling hazards and unsafe cycling situations?

Learning objectives

Students will:

- Examine cyclist injuries and casualties
- Explain the importance of wearing a helmet
- Identify the importance of being seen and being safe while riding a bicycle
- Use drama structures to develop stories that present problems and their possible solutions
- Perform a skit demonstrating an understanding of the bicycle safety scenario and correctly identifying the bicycle safety problem, then re-enact a corrected version
- Create an authentic bicycle safety manifesto in support of themselves, and each other
- Self-assessment/self-reflection

Materials and resources

- Flashlight
- Reflective material
- *Bicycle Safety: Protect Your Head!* (0:36 min.)
- ICBC cyclist injuries and casualties statistics 2013–2017

Analyze, reflect and connect

According to latest ICBC data, there are, on average, nine cyclists killed on the roads in B.C. each year and 1,600 injured.

Cyclists, like pedestrians, are vulnerable to significant injuries or death in crashes with cars. While the top contributing factors attributed to crashes with cyclists are driver distraction and failure to yield, cyclists have responsibility for staying safe.

Question and investigate

Explain to the students that this activity examines cyclist injuries and casualties between 2013 and 2017. Refer to the statistics.

- How many cyclists suffered injuries and casualties in British Columbia in 2013? 2014? 2015? 2016? 2017?
- Which region has the most cyclist injuries and casualties?
- Where do cyclist injuries and casualties happen most often?
- Are the number of injuries and casualties increasing or decreasing?

Watch and Listen

- Watch the YouTube video: Bicycle Safety: Protect Your Head! (0:36 min.)

Explore, reflect and connect

Did you know that each year, **an average of 1,600 people are injured in bicycle crashes**, with head injuries accounting for more than 60% of these injuries? An effective way to prevent head injuries from these crashes is to use bicycle helmets.

- What is the most important organ in your body? (Your brain.)
- What are some things your brain controls? (Higher functions like thinking memory and emotion but also basic physical functions like breathing, heartbeat, balance and sensation.)
- What happens if you hit your head during a bicycle crash?
  - Our brain floats in a sack of fluid within our skull. When we hit our head, our brain "bumps" against the sides of our skull, like a boat crashing against a dock in storm. Like a blow to other parts of our body, swelling occurs and puts pressure on the brain causing a temporary malfunction and/or destruction of cells. If a blow to the head is severe enough, blood vessels in the brain will tear causing bleeding, which also puts pressure against the brain squeezing out vital oxygen supply.
  - Wearing a helmet properly can reduce how much force the skull must take during a crash and therefore reduce how much the brain crashes around inside the skull (Source: *Young Cyclist Guide*, Ontario Ministry of Transportation)
  - A helmet works by absorbing the force of the impact and spreading it out over the whole helmet therefore the impact on the head and brain is reduced
  - Wearing a properly fitted bike helmet can reduce your risk of serious head or brain injury by 88% (Source: Safe Kids Canada Partner Guide, 2002)
- Is your skull enough to protect your brain from the impacts that can occur in a bicycle crash?
  - Our brain is covered by our skull which is a hard bone that varies in thickness from about 4 millimetres to 7 millimetres (Source: Bicycle Helmet Safety Institute), approximately equivalent to the thickness of three pennies stacked up (Source: Young Cyclist Guide, Ontario Ministry of Transportation)
- What is the purpose of a well-fitting bicycle helmet? (A bicycle helmet is specifically designed to protect your brain from impacts with a car, tree or pavement.)
- Why may a poorly adjusted helmet not protect your head as well? (Because it might slip around your head, might leave some parts exposed, might fall off during a crash.)

What does a helmet do?

- Absorbs the blow and minimizes violent movement of the brain within the skull
- Distributes the blow over a larger area, reducing the chance of skull fractures
- Absorbs the type of impact that may be encountered in a cycling crash or fall; other types of helmets are not designed for that purpose

Helmet tips

- Only buy a helmet that meets a standard (for example, CSA, Snell or ASTM approved)
- Get the right fit, snug but not too tight — you should not be able to fit your fingers up between the head and the helmet
- Choose a bright colour — you want to be seen
- Choose a helmet with adjustable straps and a quick release buckle. Always buckle the straps. A helmet that is not buckled is useless!
- Choose a helmet that looks good, but don't trade safety for style — find one you like so you'll like wearing it

What clothing or equipment do you need so people can see and hear you?

- Clothes in bright colours or with reflective materials for rainy weather, dark days or evenings
- Bell or horn to warn other cyclists and pedestrians that you're coming
- Working lights — if you're riding on a rainy or dark day, you need a white light in the front, and a red light and a red reflector on the back. Remember — cyclists are difficult to see at night.
- Don't assume that drivers or pedestrians can see you, even if you can see them

What else can you wear to protect yourself when you are riding a bike, skateboard or scooter? (e.g., knee and wrist pads, closed in shoes and light-coloured clothing).

When bicycle and pedestrian-related crashes occur, it is often because the motor vehicle driver failed to see the bicyclist or pedestrian. Bright and light colours, such as white, yellow, orange, neon and hot pink, are the most visible. Contrasting colours, such as stripes, are also great attention-getters. Children should wear these colours whenever they bike or walk. Additionally, backpacks and helmets should be brightly coloured.

Children should avoid riding at night or dusk when visibility is low. However, those who must travel at such times need to wear reflective clothing or other reflective equipment over their clothing and have lights on their bike. In addition, it is critical to ride where motorists are looking for traffic or obstacles.

Experience

- Dim the lights and have the class close their eyes. Have four volunteers, some wearing light-coloured T-shirts and some wearing dark-coloured T-shirts, stand side by side in a row at the front of the room. Have the fifth volunteer stand against the wall at the side of the class.
- Have the class open their eyes. Ask the class who they see first? Second? Last? Did anyone mention the volunteer standing at the side of the class? If not, why not?
- Ask students which colours are most visible:
  - Yellow, white, orange, neon, hot pink, bright green and contrasting colours and patterns such as hot pink and blue, stripes and polka dots
- Ask students which colours are least visible:
  - Dark colours such as black, brown, navy, forest green, and camouflage materials
- Ask students what, other than colours, can make them more visible? (Reflectors, reflective materials and lights are possible answers.)
- Explain to students why it is their responsibility to make sure motorists can see them — if a crash occurs, regardless of fault, the cyclist or pedestrians most likely to be hurt
- Show students reflective material; turn off the lights and shine a flashlight on the material to show the class how the material stands out

Analyze, reflect and connect

- Why is being visible important when riding a bicycle?
- How can you make sure a vehicle driver sees you when you are riding your bike?
- How can you be predictable in traffic?
- Why should students avoid night riding? Those who must walk or ride at dusk or at night need to wear reflective material over clothing, on backpacks, and on helmets; the bicycle needs a white light in the front and a red light on the back when riding at night.

Collaborate, analyze, experience, present

Assign students groups and assign (or have the students choose) a bicycle safety rule not followed from the first activity to become the basis of their skit.

- Choose a scenario (e.g., peer pressure, running late for school, the crosswalk is too far from us, I don't want that helmet to mess up my hair, etc.)
- Identify a location near to the school or their home
- Generate two possible solutions and develop a script for both
- Pair up the small groups to try out the two possible solutions and give students time to share comments and feedback
- Pairs/threes resume work, synthesize feedback and prepare a final script
- Present to class (consider inviting the principal or a younger class to watch)

Reflect and connect

Ask students to share their thoughts on following road safety rules (e.g., doing the right thing):

- Is it easier to follow the road safety rules when you feel that you have the support of the people around you? What about when people around you are making fun of you?
- Ask the students to offer examples of some words and phrases that demonstrate support for following road safety rules and record them on the board:
  - They could be pragmatic: "Thanks for using the crosswalk"
  - They could be slightly silly: "Good job on saving your life at the crosswalk"
  - They could be coded with a hidden meaning that only the class knows: "Good job, that was very Ralph of you"

Give students five to 10 minutes to reflect on these initial examples and develop the ideas further in their notebook or journal.

Regroup as a class, or small groups, to edit and combine these sentiments into a class manifesto (a public declaration of principles, policies and intentions).

- The purpose of the manifesto is to offer a written (and recollected) reminder for the students to support each other in making the right choices
- The manifesto identifies safe words or coded language that they can use to seek support
- Post this manifesto in the classroom

Self-assessment/self-reflection

Have students write a short reflective writing piece about an experience where they were peer pressured into not following a bicycle safety rule (for example, not wearing a helmet).

- Summarize the experience
- What were they doing that was not safe?
- How did the experience make them feel?
- What were the possible consequences?
- What would they do differently next time?

Bicycle believe it or not

Time requirement

This learning plan will take two sessions to complete.

Inquiry question

What are the parts of the bicycle and how does each part work together to keep a cyclist safe?

Learning objectives

Students will:

- Demonstrate how to properly fit a bicycle
- Demonstrate a five-point bicycle safety check
- Label the parts of a bicycle
- Explore bicycle subsystems, define the properties each has on its own, and how each works with the whole system
- Design a bicycle with enhanced safety features

Materials and resources

- Bicycle
- *Bike safety equipment* video (3:20 min.)
- *Worksheet 6 — bike parts* activity sheet on page 161
- *Answer key* on page 162
- *Pictures of bicycles through the ages*, shown on page 155

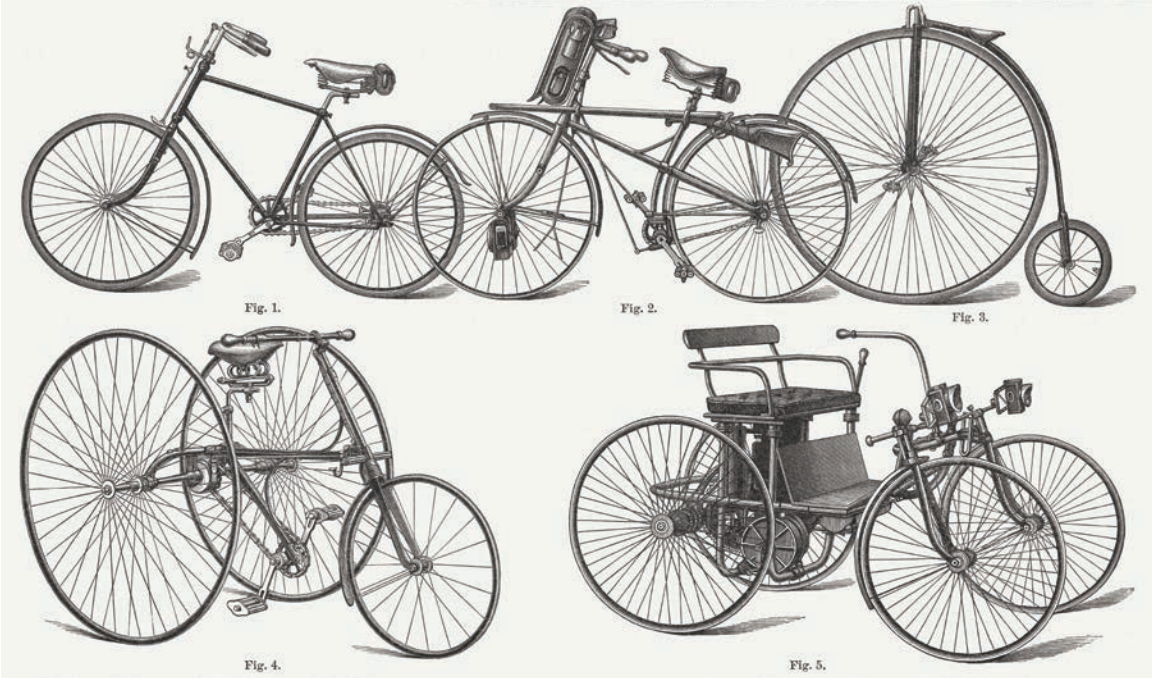


Fig. 1.
Fig. 2.
Fig. 3.
Fig. 4.
Fig. 5.

Reflect, connect and investigate

- Bring a bike into the classroom
- Brainstorm the parts of the bicycle and how each part keeps the cyclist safe
- For example:
  - Frame — supports and balances the cyclist
  - Tires — move the bike, need to checked often for bulges, cuts, cracks or worn spots
  - Tire valve — where air is put into the tires
  - Spokes — support the tires
  - Chain — moves the power from the pedals to the rear wheel
  - Pedal — where cyclist puts feet to move the bike
  - Seat — where the cyclist sits
  - Handlebar grip — where cyclist puts hands
  - Fenders — keep mud and water off the cyclist
  - Rear and front caliper brakes — lets cyclist stop the bike
  - Bell — warning signal
  - Red rear reflector — makes the cyclist more visible
  - Rear red light — must be mounted and visible to the rear
  - Front white light — must be mounted on the front
- Discuss basic maintenance tips

A properly fitted bike is the difference between an uncomfortable ride and lifelong satisfaction as a cyclist. To fit a bike:

- Stand over the top tube with your feet flat on the ground
- Lift the front wheel — you should be able to lift it 2.5 to 5 centimetres off the ground
- Sit on the saddle — you should be able to touch the ground with the balls of your feet
- While you are seated and your feet are on the pedals, the leg on the pedal in the down position should be bent slightly at the knee

Experience

- Have two or three students of different heights sit on the bike and determine who it fits properly and who it doesn't fit
- Why is it important to be able to reach the pedals? The brakes?

Reflect and connect

Ask students:

- Describe the qualities of your own bicycle
- What do you like about your bicycle?
- Describe how a bicycle works
- Has your bicycle ever broken? What part broke? Were you able to repair it?

Watch and Listen

Bike safety equipment video (3:20 min.)

Dante and Tiara show how important it is to have the right equipment such as an appropriate helmet and how to wear it properly, as well as the importance of clothing, eye protection, gloves, and proper shoes. As Tiara tunes her guitar, Dante demonstrates how to tune a bicycle by checking that the brakes and tires are in good condition, including air pressure (PSI). Tiara recommends panniers instead of using a backpack and demonstrates how to check that your bicycle's the right size.

Reflect and connect

When getting ready to ride a bicycle, what do you need to be wearing?

- Bike helmet that fits properly — it's the law
- No hood, hat, or baseball cap underneath the helmet because your helmet won't fit right and it interferes with peripheral vision
- Closed shoes — no open toes, flip-flops or bare feet, and laces and pant cuffs secured — that way they won't get caught in the chain
- Glasses to protect your eyes from bugs, dust or rain, and gloves in cold or rainy weather to help keep your braking fingers nimble
- Bike rack panniers instead of riding with a backpack — storing books in panniers lowers the centre of gravity, making the bike and rider more stable

What equipment is required to ensure that people (pedestrians, cyclists, drivers) on your route can see and hear you?

- Clothes in bright colours or with reflective materials for rainy weather, dark days or evenings
- Bell or horn to warn other cyclists and pedestrians that you're coming
- Working lights — if you're riding on a rainy or dark day, you need white in the front and red in the back and red rear reflectors. Remember — cyclists are difficult to see at night and don't assume that drivers or pedestrians can see you, even if you can see them.

What is the five-point bicycle safety check that you and/or your parents should review before every ride?

Make sure your:

- Brakes and gears work properly
- Bike is the right size for you and that the seat height is adjusted properly — while riding, your knees should be slightly bent when the pedal is at its lowest point
- Tires are inflated properly — compare the air pressure with the PSI (pounds per square inch) reading on the side of the tire
- Tire wheel nuts and handlebars are secure — not wobbly
- Helmet fits properly and is safely adjusted

Explore and investigate

- Most bicycles have two wheels (bi means two), and most bicycles have two pedals, a frame, handlebars and a seat; there's also a chain that helps the back wheel move
- A bicycle with one wheel is called a unicycle (show a picture and discuss safety considerations)
- A bicycle with three wheels is called a tricycle (show a picture and discuss safety considerations)
- A bicycle with four wheels is a quadracycle (show a picture and discuss safety considerations)
- Would you be surprised to know that there was a bicycle that could be ridden by 52 people at the same time? It was 140 feet long and had 26 wheels. The longest two-wheeled bicycle was 67 feet long and held 35 people!
- The earliest bicycle was a wooden scooter-like contraption called a celerifere; it was invented about 1790 by Comte Mede de Sivrac of France. In 1816, Baron Karl von Drais de Sauerbrun, of Germany, invented a model with a steering bar attached to the front wheel, which he called a Draisienne. It has two wheels (of the same size), and the rider sat between the two wheels, but there were no pedals; to move, you had to propel the bicycle forward using your feet (a bit like a scooter).
- Early tires were wooden — metal tires were an improvement, and solid rubber tires were added later. A chain with sprockets was added to the bicycle in the 1880s; this was called the "**safety bicycle**". Air-filled tires were also added in the 1880s

- Can you imagine riding a bike with a front wheel nearly twice as tall as you? A bike like this was popular a long time ago and was known as the high-wheel bicycle, or penny farthing (display a picture of the penny farthing). Unfortunately, the penny farthing wasn't safe. With such a large front wheel, it was easy for a rider to lose balance and go flying head first over the handlebars. Also, there were no brakes. Imagine going really fast down a hill without brakes!
- Have you seen a bicycle built for two? (show a picture and discuss safety considerations)
- Have you seen a bicycle built for four? (show a picture and discuss safety considerations)
- There are electric bicycles and even bicycles that when you pedal, a generator turns, which charges a battery that can be used as a power source

Distribute the article Bicycle Heroes from the Franklin Institute website or have students read it online. The article describes one of the earliest bicycles, how it worked and the design changes that improved its use. It also discusses the early bicycle clubs, as well as the first bicycle racers who became stars and who helped to popularize the sport.

- In groups of three or four, have groups list in order of importance the following bicycle characteristics: speed, safety, comfort, durability. Ask each group to explain their choice

Inquire

- How might a bicycle's design differ depending on which characteristic is more important?
- Is it possible to accommodate all four characteristics in designing a bicycle?

Research and explore

Explain to the groups that they will conduct an internet exploration to understand more about the parts of a bicycle and how bicycle systems work. Have students review Science of Cycling on The Exploratorium website. Ask each group to select one subsystem to explore. The groups of students should review their section and describe the subsystem and the parts that make a bicycle work.

The subsystems are:

- The wheel
- Drivers and gears
- Frames and materials
- Brakes and steering
- Aerodynamics
- Human power

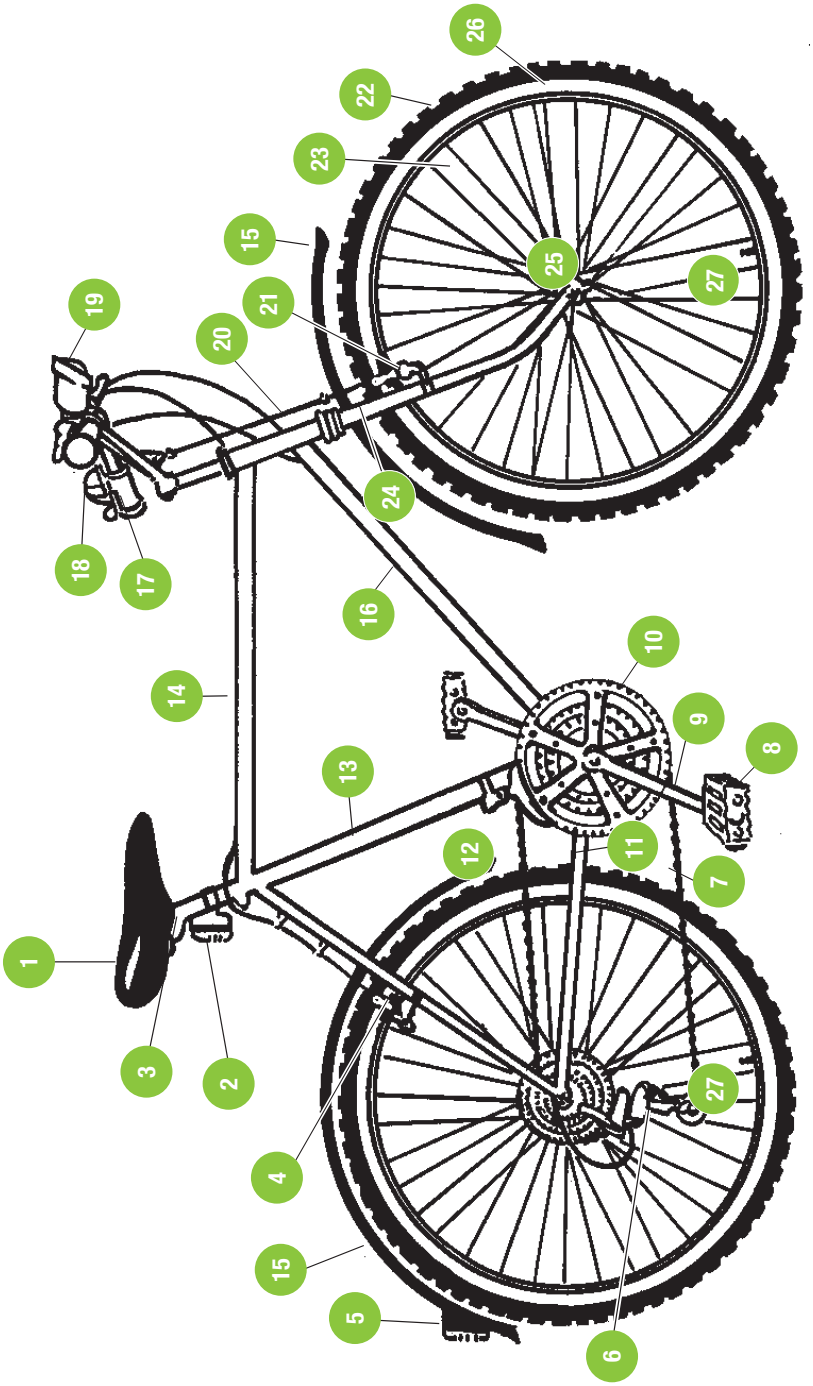
Research, plan and present

The students are to read about each subsystem, list the parts of the subsystem, define the properties it has on its own, and how it works with the whole system. To answer the questions, students may need to use their knowledge about the other bicycle subsystems that are described on the site. Ask the students to present their findings to the class.

Label the parts of a bicycle

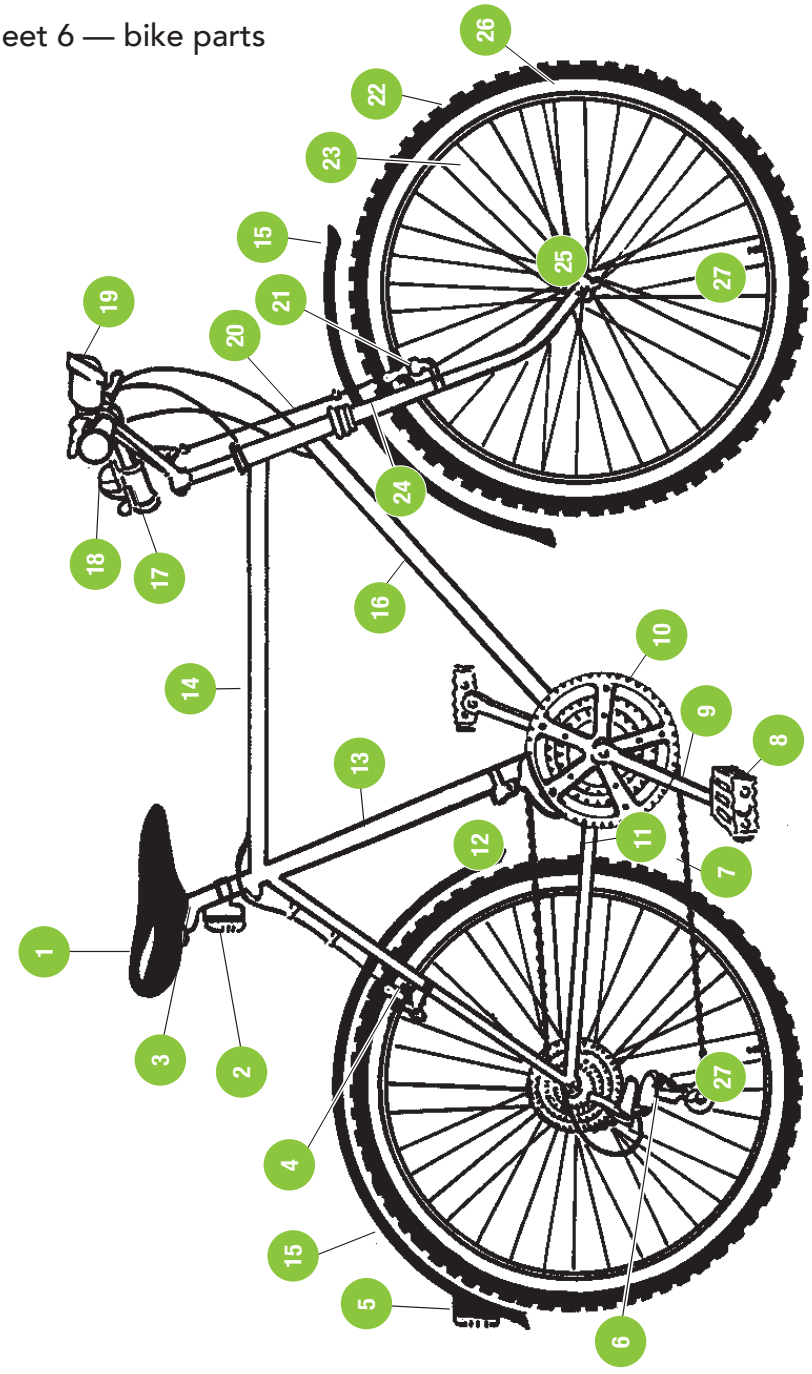
Explain the parts of the bicycle. Have the students label the bicycle parts.

Activity sheet: Worksheet 6 — Bike Parts



Answer key

Worksheet 6 — bike parts



1 Seat 2 Rear light 3 Seat stay 4 Rear calliper brake 5 Red rear reflector 6 Rear derailleur 7 Chain 8 Pedal 9 Crank arm
10 Chain ring 11 Chain stay 12 Front derailleur 13 Seat tube 14 Top tube 15 Fenders 16 Down tube 17 Handlebar grip
18 Bell 19 Front light 20 Brake cable 21 Front calliper brake 22 Tire 23 Spokes 24 Fork 25 Hub 26 Rim 27 Tire valves

Collaborate, explore, invent and present

Group the students into teams of about four. Explain that they are part of a team of engineers given the challenge by the city to design a bicycle with enhanced safety features.

Students can use the library to conduct research, and if they have access to the internet, can also research ideas online

Have students brainstorm with their team to develop a safe bicycle. Draw a detailed diagram of it and label it. Explain how it might reduce cycling accidents. What are the safety features?

Students can use presentation software such as PowerPoint, or create posters, or paper handouts to share their invention with the rest of the class.

Healthy travel

Time requirement

This learning plan will take one session to complete.

Inquiry question

What are the health and environmental advantages of riding a bicycle instead of driving in a vehicle?

Learning objectives

Students will:

- Estimate the cost of being driven to and from school each day
- Explore the effects vehicles have on the environment

Materials and resources

- Statistics on vehicle carbon dioxide emissions in Canada
- Statistics on vehicle pollution in Canada

Reflect and connect

Have students brainstorm all the reasons they can think of for choosing to bicycle to school instead of riding in a vehicle (health and physical activity benefits, reducing pollution, etc.).

Write the following words on the board or chart paper.

- Environment
- Transportation
- Pollution
- Traffic jam
- Greenhouse effect

Discuss that riding to school provides physical health and environmental benefits by:

- Providing exercise for the rider
- Reducing traffic congestion
- Reducing noise and air pollution
- Reducing greenhouse emissions

Explore, investigate, reflect and connect

Discuss how using alternative forms of transportation is something people can do to protect the environment. Explain that auto exhaust is one of biggest contributors of air pollution. Have students suggest non-polluting changes we could make in our community to make it easier to bike to school.

Discuss the health and environmental advantages of riding a bicycle instead or driving a vehicle to school. Health professionals recommend at least 30 minutes of moderate-intensity physical activity each day. This is enough to maintain good health, even if the exercise is broken up into short 10 minute bursts. Riding to school, or taking your bike on short neighbourhood trips is a convenient and practical way to incorporate regular exercise into your day.

Did you know that automobiles account for about 30–40% of the county's total carbon dioxide emissions? Carbon dioxide is the main contributor to the greenhouse effect — the slow warming of the earth's atmosphere. Bike riding uses minimal fossil fuels and is a pollution-free mode of transport. Bikes reduce the need to build, service and dispose of cars. Cycling 10 kilometres would save 1,500 kilograms of greenhouse gas emissions each year.

By biking to school, you help keep our air clean by decreasing the amount of air pollution. When just one person bikes to work or school for a year instead of driving, our lungs and our planet are saved from 78 pounds of pollution. The more people use bicycles, the cleaner our air will be.

Look at the school parking lot. If bicycles were used instead, how much more space would there be for playgrounds or a school garden?

HASTeBC

Investigate

Have students estimate the cost of being driven to and from school each day.

- Estimate daily round-trip commute in kilometres
- Multiply daily round-trip commute kilometres by five (five school days in a week)
- Multiply the weekly kilometres by four to get an average monthly kilometres
- Estimate monthly vehicle costs (price of a vehicle or monthly payments, gas, insurance, repairs, etc.)
- Then estimate the cost of a bicycle and bicycle repairs

Note: The family car costs up to 55 cents per kilometre to run. In comparison, the cost of buying and maintaining a bike is around 1% of the cost of buying and maintaining a car.

Safe bicycle route to school

Time requirement

This learning plan will take two sessions to complete.

Inquiry question

How can I use planning to reduce risk?

Learning objectives

Students will:

- Choose between two options for the better/safer cycling route to school
- Plan the journey to school as a means of reducing risk
- Identify cardinal points (north, south, east and west) and use them on a map
- Engage in problem-solving to help find the best cycling route from home to school
- Understand and document safe cycling practices that are new to the students
- Create a checklist/chart to assess which route has the lower risk
- Participate in a Socratic seminar

Materials and resources

- *Safe Route to School Checklist* on pages 170 and 171
- Map of neighbourhood between home and school (city map, school district map, Google maps, etc.)
- Colour markers or highlighters

Reflect and connect

- Distribute *Safe Route to School Checklist* on pages 170 and 171
- Ask students to look over the list to identify which of the items are already known to them, and which of the items list pedestrian safety skills that are new to them
- As a class, discuss some of these new skills. What do the students think they have risked by not knowing these rules?

- Are the rules the same for bicyclists? What other rules (for example, walking bikes across a crosswalk) should be considered when on a bike?
- Does everyone live the same distance from school? How do you know?
- Is there only one way to get from your home to the school?
- Could you give someone else directions to get from your home to the school? Does it matter whether you tell them the steps in order and if you are specific when you give the directions?

Explore

Introduce the topic of risk assessment, and explain to the students that risk assessment involves three steps:

- Identifying things which could cause harm (hazards)
- Assessing how likely these are to actually happen and how bad/severe the consequences could be (the risk)
- Looking for ways to minimize the risks, or make them smaller
  - Is it possible to eliminate any of the risks completely?

Explore and Experience

Explain that you will be asking the students to compare two bicycle routes to school.

Note: If students are not able to bike to school, the assignment could be to determine a best walking route to a destination near to the school or home.

If students live very close to school (e.g., there is only one road linking their home to the school) they could be asked to assess a best route to the library or other destination.

Students may work individually, or in pairs with a student who lives very close to them.

- Distribute neighbourhood maps, or have the student retrieve a map from a municipal or online source
- Internet mapping sites have begun integrating bicycling as an option when one needs enters a location for directions
- Note cardinal points on the map (N, S, E, W); for an additional challenge, include NW, NE, SE and SW in addition to the basic cardinal points
- Begin by mapping two possible bicycle routes between home and school. (They may have completed this activity in a previous learning plan. If so, they can revisit their map and review it to see if they would make any changes with a bicycle.)

- List the stages for each option, for example:
  - Bike along _____ Street
  - Use the crossing at _____ Street
  - Bike through _____ Park
  - Turn north at the corner of _____ Street and continue biking
- Create a checklist/chart to assess which route has the lower risk due to a combination of:
  - The presence of sidewalks
  - A barrier or space between the sidewalk and traffic (e.g., a grass verge, bushes, parked cars)
  - Crosswalks
  - Pedestrian lights
  - Slower traffic speeds
  - Lighter traffic volume

Activity sheet — Safe route to school checklist

How cyclable is the route to school?

1. Did you have room to bike?
   - ❑ Yes
   - ❑ Some problems
     - ❑ No dedicated bike lanes
     - ❑ Bike lanes were shared with traffic
     - ❑ The route was blocked with poles, signs, trees, garbage cans, etc.
     - ❑ No paths or shoulders
     - ❑ Too much traffic
     - ❑ Something else _____
     - ❑ Location of problems _____
2. Was it easy to cross streets?
   - ❑ Yes
   - ❑ Some problems
     - ❑ Traffic signals too long or did not give enough time to cross
     - ❑ No traffic signals
     - ❑ No crossing guards
     - ❑ Parked cars blocked view of traffic
     - ❑ Trees, plants, poles or garbage cans blocked view of traffic
     - ❑ Too much traffic
     - ❑ Something else _____
     - ❑ Location of problems _____
3. Did drivers behave well?
   - ❑ Yes
   - ❑ Some problems
     - ❑ Backed out of driveway without looking
     - ❑ Did not yield to pedestrians crossing the street
     - ❑ Drove too fast
     - ❑ Made a right turn without checking for pedestrians
     - ❑ Drove through traffic light
     - ❑ Something else _____
     - ❑ Location of problems _____ Did drivers behave well?

Activity sheet — Safe route to school checklist, continued

4. Was your bicycle ride pleasan?
   - ❑ Yes
   - ❑ Some problems
     - ❑ Barking, scary dogs
     - ❑ Scary people
     - ❑ Scary traffic
     - ❑ Not well-lit
     - ❑ Litter or other garbage
     - ❑ Poor air quality due to traffic exhaust
     - ❑ Something else _____
     - ❑ Location of problems _____

Question and Investigate

Ask students to consider other factors they need to be aware of in their community (e.g., bears, trucks, highways) and add them to their list.

- Encourage the students to bike along both routes with their parent or guardian to confirm and itemize the list of risk-assessment factors, and discuss the two options
- Encourage students to also consider local information and sources of support along both routes: friends' homes, dogs not bound by leash or yard, cautionary places to avoid, etc.
- Encourage students to notice the sounds of nature and be mindful of what the surroundings are, and to show gratitude for the outdoors
- Have students assess both routes and identify the place/location on both routes in which they (and/or their parents) consider to have the highest risk of danger; identify the risks
- Ask students to discuss which of the school access points are safest, away from vehicle drop-off and pickup locations
- Have students draw a final map presenting their decision as to which is the better route, along with a short outline of the key factors in the assessment and identifying the risks they discovered

Develop, design and present

Invite students to present their maps to the class and discuss some factors involved in making the decision:

- Was it difficult to choose between the two routes?
- What is the distance for each route?
- Who has the longest/shortest distance to school?
- If both routes seemed similar, what was the deciding factor?
- How did their parent or guardian contribute to the decision?
- Did the presentations draw attention to specific items/places along the routes that they believe require attention from the municipality/region (e.g., add a crosswalk here, add a stop light here)? Did more than one presentation find the same risks?
- Obtain feedback from classmates and then revisit their maps and edit/update their maps

Inquiry — Socratic Seminar

Invite four or five volunteers for a Socratic seminar on cycling to school vs. driving to school. The volunteers will move their chairs to the front of the class. Each panel member can, one at a time, express their views, feelings on the topic — they should refer to the hazards or lack of hazards that they notes on their research of a safe route to school. After panel members have expressed their views on the question, the floor is open to questions from the audience.

Go beyond

- Buddy with a Grade 2 class and have the students share and discuss their maps and a safe biking route to school
- In groups of three or four, have students write a persuasive letter to the city identifying risks and a potential solution to the risks they identified on their way biking to school (e.g., add a crosswalk here, add a stop light here)
- HASTEBC resources
  - Parent Advisory Council Presentation
  - Regular Walk and Wheel to School Program
  - School Site Walkabout
  - School Travel Survey

Stop, think, go

Time requirement

This learning plan will take two sessions to complete.

Inquiry question

What risks/hazards do I encounter when riding a bike? What can I do to minimize the risks?

Learning objectives

Students will:

- Demonstrate problem-solving skills
- Identify how a crash might have been avoided

Materials and resources

- ICBC statistics on children bicycle injuries (being hit by traffic)

Analyze, reflect and connect

According to latest ICBC data, there are, on average, nine cyclists killed on the roads in B.C. each year and 1,600 injured.

	2013	2014	2015	2016	2017	5-year average
Incidents	1,500	2,000	2,200	2,100	2,000	2,000
Injured cyclists	1,600	1,700	1,800	1,700	1,400	1,600
Fatal cyclists	13	6	12	10	3	9

Review the statistics by age group. Use a graphing tool to graph the results. What age group has the highest number of injuries? Why do you think this is?

Injured Vicitims by Age Category by Role (year 2013-2017 combined)

Age category	Pedestrian	Cyclist	Driver	Passenger	Other	Total
0–4	120	25	18	3,800	1,200	5,200
5–6	67	16	3	1,700	560	2,400
7–9	97	38	8	3,000	900	4,000
10–12	160	98	5	3,000	930	4,200
13–15	350	210	7	3,400	1,000	5,000
16–18	580	290	7,600	4,700	2,100	15,000
Other	11,000	7,600	280,000	53,000	54,000	410,000
Total	**13,000**	**8,200**	**290,000**	**73,000**	**61,000**	**440,000**

Research

- How many crashes involving cyclists occurred in your community in 2017?
- Choose three B.C. cities and compare the number of crashes involving cyclists. Create a graph of the results.

Have the students consider the following cyclist risks. Discuss which are environmental conditions, which are cyclist behaviour, which are vehicle-related and which are driver-related. What rules could reduce the risks and prevent crashes?

- Dog on the road
- Cyclist riding the wrong way down the street
- Vehicle with a fogged or icy windshield
- Leaves on the road (wet leaves are like ice)
- Drain grate
- Driver texting
- Broken bottle on the road
- Cyclist listening to a music player with headphones on
- Door opening on a parked car
- Potholes
- Driver speeding
- Cyclist not wearing a helmet
- Ice on the road
- Vehicle with a cracked windshield
- Driver eating a sandwich

- Pedestrians chasing each other on the sidewalk
- Fog and rain
- Cyclist riding at night

Optional activity — Problem-solving scenarios

- Arrange the students in small groups
- Give each group a real-life cyclist crash scenario. Ask each group to demonstrate their problem-solving skills by using the problem-solving traffic light to:

RED:	Stop and identify the problem. (What happened) What factors may have contributed to the crash – consider the pedestrian, the driver, the environment and the vehicle.
YELLOW:	Wait and think. Look at all the choices and their consequences (why did the crash happen) – consider the pedestrian, the driver, the environment and the vehicle.
GREEN:	Go! Make a decision and a plan (what could have prevented the tragedy).

Have teams present their scenarios and solutions to the class.

Activity sheet — Problem-solving worksheet

Name(s) _____ Date _____

	Senario	Problem Solving
Pedestrian or cyclist		Red: Yellow: Green:
Driver		Red: Yellow: Green:
Environment		Red: Yellow: Green:
Vehicle		Red: Yellow: Green:

Problem-solving scenarios

An 8-year-old boy has been killed in a collision with a pickup truck while riding his bicycle. B.C. police say the accident happened just before noon Sunday when the boy rode out of a driveway. Emergency first aid was administered by good Samaritans and police say the child received quick medical care from hospital staff, but he couldn't be saved. Police say the boy was with a sibling when he rode out of the driveway and he was wearing a bike helmet.

A 15-year-old cyclist has died after being hit by a van over the weekend. The teenager was struck at the intersection of two streets at 6:20 p.m. PT on Friday. RCMP said he suffered serious injuries and later died in hospital. The driver of the vehicle stayed on scene and is co-operating with police.

The family of a cyclist who died after being "car-doored" by a taxi has backed a campaign to stop others from suffering the same fate. Both the taxi driver and passenger were fined for their actions.

A cyclist died early Sunday afternoon after being struck by a truck. The cyclist was travelling west in a bike lane at around 1:45 p.m. when he collided with another cyclist, swerved into traffic and into the path of a dump truck headed in the same direction.

A 3-year-old boy has been struck and killed by an SUV while riding his bicycle in an apartment complex parking lot. The boy was initially riding on the sidewalk but at some point went into the parking lot at about 2:45 p.m. Sunday. He was struck by the front end of an SUV pulling out of a parking spot.

Unit review

Time requirement

This learning plan will take two sessions to complete.

Inquiry question

What have I learned about bicycle safety and my responsibility to myself and others?

Learning objectives

Students will:

- Correctly identify and explain the rationale for each of the bike safety skills
- Collaborative develop a strategy and write a slogan and a persuasive presentation for it
- Participate in a talking circle
- Promote bicycle safety skills in the form of a presentation
- Complete a self-assessment/self-reflection

Reflect and connect (you will need a beach ball and strips of paper)

Brainstorm with the class what they learned in this unit and have them turn what they have learned into questions. Write all the questions they brainstorm on pieces of paper and give each student one or two. Have the students form a large circle. Grab a beach ball and toss it to one of the students. Ask them one of the brainstormed questions. The student answers the question and then tosses the ball to another student and asks them one of the prepared questions. Continue this process as time allows.

Possible questions:

- What is one thing you learned in this unit?
- Why should cyclists walk across the crosswalk?
- What should you do if you are being peer-pressured into doing something unsafe?
- What are the main hazards in our area for cyclists?

- Why is it important to wear a properly fitted safety-approved helmet?
- What are some key rules that cyclists in our area need to obey to stay safer?
- How can you help a younger child or friend be safe on a bicycle?

Collaborate, explore and present

- Post the topics of bicycle safety rules not followed from the first lesson and assemble the students in small groups of three or four
- Allow the groups to choose one of the rules not followed that they have not worked on previously
- Ask the groups to make up a realistic scenario for this safety rule and identify how the tactics, strategies and/or resources from the recent safety discussions have made them better prepared to consider this situation
- Have each group choose a presentation format (skit, poster, video, song, poem, etc.) along the theme of "Friends don't let friends _____" to promote cyclist safety skills to their peers
- When the students are ready with a first draft, pair up the groups so that they can offer constructive criticism on each other's presentations
- Have the students present their strategy

Go Beyond

- Invite the principal, parents or other intermediate classes to attend
- Ask each student to reflect on how their own attitudes and feelings might have developed through their work in preparing the poster, skits and strategies to speak up for bicycle safety
- Invite students to share one thought or feeling with the class

Speaking to Communicate

Discuss with students that a talking circle is used with some First Peoples to create a safe environment in which participants can share their point of view with others. It is an opportunity to learn to listen and respect the views of others. The intention is to open hearts to understand and connect with one another.

Have the students sit in a circle. The circle represents completeness. Place an object (e.g., feather, rock, stick) in the middle of the circle. Explain the rules:

- Everyone's contribution is equally important
- State what you feel or believe starting with 'I statements', e.g., 'I feel…'

- All comments must be addressed directly to the question or the issue, not to comments that another person has made
- When a person has the talking object, it is their turn to share thoughts, without interruption, and others have the responsibility to listen
- The talking object is then passed to the next person in a clockwise direction
- If someone does not want to speak, they pass the talking object to the next person

Talking circle topic: Ask that student to share a time when they made a good choice in regards to bicycle safety that contributed to their well-being and/or the well-being of others.

Self-assessment/self-reflection

Have the students complete a self-assessment/self-reflection.

Have students write a short reflective writing piece about what they learned in this unit about peer pressure, about being a safe cyclist, about the hazards cyclists face, about wearing safety equipment and about making safe choices.

Campaign for a bicycle safe route to school

Time requirement

This learning plan will take two sessions to complete.

Inquiry question

How can I protect myself and others from potentially hazardous cycling situations? What can I do to campaign for a bike safe route to school?

Learning objectives

Students will:

- Conduct a survey to determine bicycle crash contributing factors
- Collaboratively develop a strategy and write a slogan and a persuasive presentation for it, to raise awareness and advocate for cyclist safety with an aim to promote the safety of oneself and others
- Demonstrate that doing something is better than doing nothing at all

Collaborate, explore and analyze

Place the students in groups of three or four. On a large piece of poster paper, have the groups brainstorm why injuries occur on bikes, skateboards, scooters…. List all the ideas they can think of. Next, have the groups review their ideas and highlight the most common reasons to report to the class.

Explain to students that most causes of bicycle crashes can be grouped into three categories:

- Lack of skills or knowledge
- Unsafe behaviour
- A hazard in the environment

Give each student a survey sheet. Ask them to poll family, friends, classmates, and other children in the school during recess and noon.

Activity sheet — Explore, analyze, reflect and connect

Calculate

Calculate — or have the students calculate — the percentage of unsafe bicycle practices from this sample, or create a bar graph with the data.

On a bicycle	tally	Reason (category 1, 2 or 3)
Hit another object when riding		
Fallen from a bike when riding		
Been injured after falling from a bike		
Been injured when riding on a road		
Been injured when riding off the road		
Been injured by a car when riding		
On a skateboard or scooter		
Hit another object when riding		
Fallen from a skateboard or scooter		
Been injured after falling from a skateboard or scooter		
Been injured when riding on a road		
Been injured when riding off the road		
Been injured by a car when riding on the road		

Watch and Listen

Watch the YouTube video — *Flight of the Hummingbird* (2:34 min.)

The hummingbird parable, with origins in the Quechuan people of South America, has become a talisman for environmentalists and activists who are committed to making meaningful change in the world. In this inspiring story, the determined hummingbird does everything she can to put out a raging fire that threatens her forest home. The hummingbird, a symbol of wisdom and courage, demonstrates that doing something is better than doing nothing at all.

Explore, design and present

In groups of two or three, have students campaign for a safe cycling route to school. Like the hummingbird, doing something is better than doing nothing at all. Using their knowledge of injuries related to bicycle, scooter and skateboard crashes, and what hazards they encountered on mapping a safe route to school, have students consider what could make the bicycle route to school safer. Have the students think about how they can create awareness about hazards on the bicycle route to school.

Have the teams come up with a strategy and create a slogan for it, and a persuasive presentation to the city (class) with their recommendations. They can write, paint, draw, film or design advertisements to campaign for a safe bicycle route to school. At the end of the presentations, have the class — as pretend city representatives — discuss the presentations and whether or not they were convinced to adopt the strategy to keep cyclists safe.

Or have students create Public Service Announcements (PSAs). Explain to the class that PSAs are messages, often in the form of TV commercials, that share a message about health or safety concerning the general public. Show some samples on pedestrian safety from the PSA website. Discuss how making the public aware might change people's attitudes and behaviour.

Extensions

- Read the Cree story Small Number and the Skateboard Park about how math is part of the world around us
- Make up a board game for younger students based on the bicycle safety rules
- In a physical science class, discuss the physics of gears, brakes, wheels and levers, etc.
- Invite a local bike shop mechanic to come in and demonstrate correct helmet fit and safety check for bicycles
- Use the bicycle safety equipment and bicycle parts in a spelling quiz or charades game
- Organize a bike to school day. Have parent helpers at the school to help students lock up their bikes

Feedback and suggestions?

ICBC welcomes your questions, suggestions, and feedback at learningresourcefeedback@icbc.com.