road safety learning resources: teacher's manual

Grade 6

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Statement of Limitation

British Columbia has laws, regulations and rules prescribing our behaviour on the road (the "Law"). The material you are reading now relates to the Law, but ICBC cannot guarantee that it fully and accurately describes the Law. This material may be oversimplified, out of date, inapplicable, incomplete or incorrect. For this reason, you should research the Law, without relying on this material. ICBC does not accept any liability resulting from reliance on this material.

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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 6 Arts Education, English Language Arts, Mathematics, Physical and Health Education, and Career Education. It consists of cross-curricular learning plans focusing on pedestrian safety choices that will allow the Grade 6 students to become positive role models for younger students and in their community. The exercises help build assertive communication strategies to prevent, and respond to, hazardous behaviours and scenarios.

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

Arts Education

Big ideas: People create art to express who they are as individuals and community. Engagement in the arts creates opportunities for inquiry through purposeful play. People connect to others and share ideas through the arts.

Learning Standards

Curricular Competencies	Content
Students will be able to use creative processes to: **Exploring and creating** • Intentionally select, apply, combine and arrange artistic elements, processes, materials, movements, technologies, tools, techniques and environments in art making • Create artistic works collaboratively and as an individual, using ideas inspired by imagination, inquiry, experimentation and purposeful play • Explore relationships between identity, place, culture, society and belonging through the arts • Demonstrate an understanding and appreciation of personal, social, cultural, historical and environmental contexts in relation to the arts **Reasoning and reflecting** • Develop and refine ideas, processes and technical skills in a variety of art forms to improve the quality of artistic creations • Reflect on works of art and creative processes to understand artists' intentions • Interpret creative works using knowledge and skills from various areas of learning • Examine relationships between the arts and the wider world	*Students are expected to know the following:* • Purposeful application of elements and principles to create meaning in the arts, including but not limited to: – Drama: character, time, place, plot, tension, mood, focus, contrast – Visual arts: elements of design: line, shape, space, texture, colour, form, value; principles of design: pattern, repetition, balance, contrast, emphasis, rhythm, variety, unity, harmony • Processes, materials, movements, technologies, tools, strategies and techniques to support creative works

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 • Take creative risks to express feelings, ideas and experiences • Express, feelings, ideas and experiences through the arts • Describe, interpret and respond to works of art and explore artists' intent • Experience, document and present creative works in a variety of ways • Demonstrate increasingly sophisticated application and/or engagement of curricular content	*Students are expected to know the following:* • 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: Language and text can be a source of creativity and joy. Exploring stories and other texts helps us understand ourselves and make connections to others and to the world. Exploring and sharing multiple perspectives extends our thinking. Developing our understanding of how language works allows us to use it purposefully.

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 for diverse purposes and from a variety of sources and evaluate their relevance, accuracy and reliability • Apply appropriate strategies to comprehend written, oral and visual texts, to guide inquiry and to extend thinking • Synthesize ideas from a variety of sources to build understanding • Recognize and appreciate how different features, forms and genres of texts reflect various purposes, audiences and messages • Think critically, creatively and reflectively to explore ideas within, between and beyond texts • Recognize and identify the role of personal, social and cultural contexts, values and perspectives in texts • Recognize how language constructs personal, social and cultural identity • Construct meaningful personal connections between self, text and world • Respond to text in personal, creative and critical way	*Students are expected to know the following:* **Story/text** • Forms, functions and genres of text • Text features • Literary elements • Literary devices • Techniques of persuasion **Strategies and processes** • Reading strategies • Oral language strategies • Metacognitive strategies • Writing processes

Learning Standards (continued)

Curricular Competencies	Content
• Understand how literary elements, techniques and devices enhance and shape meaning • Recognize an increasing range of text structures and how they contribute to meaning • Recognize and appreciate the role of story, narrative and oral tradition in expressing First Peoples' perspectives, values, beliefs and points of view **Create and communicate (writing, speaking, representing)** • Exchange ideas and viewpoints to build shared understanding and extend thinking • Use writing and design processes to plan, develop and create engaging and meaningful literary and informational texts for a variety of purposes and audiences • Assess and refine texts to improve their clarity, effectiveness and impact according to purpose, audience, and message • Use an increasing repertoire of conventions of Canadian spelling, grammar and punctuation • Use and experiment with oral storytelling processes • Select and use appropriate features, forms and genres according to audience, purpose and message • Transform ideas and information to create original texts	**Language features, structures and conventions** • Features of oral language • Paragraphing • Language varieties • Sentence structure and grammar • Conventions • Presentation techniques

Mathematics

Big ideas: Mixed numbers and decimal numbers represent quantities that can be decomposed into parts and wholes. Computational fluency and flexibility with numbers extend to operations with whole numbers and decimals. Linear relations can be identified and represented using expressions with variables and line graphs, and can be used to form generalizations.

Learning Standards

Curricular Competencies	Content
Students are expected to do the following: **Reasoning and analyzing** • Use logic and patterns to solve puzzles and play games • Use reasoning and logic to explore, analyze and apply mathematical ideas • Estimate reasonably • Demonstrate and apply mental math strategies • Use tools or technology to explore and create patterns and relationships, and test conjectures • Model mathematics in contextualized experiences **Understanding and solving** • Apply multiple strategies to solve problems in both abstract and contextualized situations • Develop, demonstrate and apply mathematical understanding through play, inquiry and problem-solving • Visualize to explore mathematical concepts • 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	*Students are expected to know the following:* • Small to large numbers (thousandths to billions) • Multiplication and division facts to 100 (developing computational fluency) • Introduction to ratios • Whole-number percents and percentage discounts • Increasing and decreasing patterns, using expressions, tables and graphs as functional relationships • Perimeter of complex shapes • Line graphs • Single-outcome probability, both theoretical and experimental

Learning Standards (continued)

Curricular Competencies	Content
Communicating and representing • Use mathematical vocabulary and language to contribute to mathematical discussions • Explain and justify mathematical ideas and decisions • Communicate mathematical thinking in many ways • Represent mathematical ideas in concrete, pictorial and symbolic forms **Connecting and reflecting** • Reflect on mathematical thinking • Connect mathematical concepts to each other and to other areas and personal interests • Use mathematical arguments to support personal choices	

Physical and Health Education

Big ideas: We experience many changes in our lives that influence how we see ourselves and others. Healthy choices influence our physical, emotional and mental well-being. Learning about similarities and differences in individuals and groups influences community health.

Learning Standards

Curricular Competencies	Content
Students are expected to be able to do the following: **Physical literacy** • Develop and apply a variety of movement concepts and strategies in different physical activities, and exertion levels in physical activity • Develop and demonstrate safety, fair play and leadership in physical activities **Healthy and active living** • Describe how students' participation in physical activities at school, at home and in the community can influence their health and fitness • Describe the impacts of personal choices on health and well-being • Identify, apply and reflect on strategies used to pursue personal healthy-living goals **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 • Explore strategies for promoting the health and well-being of the school and community	*Students are expected to know the following:* • Proper technique for fundamental movement skills, including non-locomotor, locomotor and manipulative skills • Movement concepts and strategies • Basic principles for responding to emergencies • Strategies to protect themselves and others from potential abuse, exploitation and harm in a variety of settings • Consequences of bullying, stereotyping and discrimination • Strategies for managing personal and social risks related to psychoactive substances and potentially addictive behaviours

Learning Standards (continued)

Curricular Competencies	Content
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	• Influences on individual identity, including sexual identity, gender, values and beliefs

Career Education

Big ideas: Leadership represents good planning, goal-setting and collaboration. Safe environments depend on everyone following safety rules. Practising respectful, ethical, inclusive behaviour prepares us for the expectations of the workplace.

Learning Standards

Curricular Competencies	Content
• Recognize their personal preferences, skills, strengths and abilities, and connect them to possible career choices • Question self and others about how their personal public identity can have both positive and negative consequences • Examine the importance of service learning and the responsibility of individuals to contribute to the community and the world • Appreciate the importance of respect, inclusivity and other positive behaviours in diverse, collaborative learning and work environments • Question self and others about the reciprocal relationship between self and community • Use entrepreneurial and innovative thinking to solve problems • Demonstrate leadership skills through collaborative activities in the school and community • Demonstrate safety skills in an experiential learning environment • Set realistic short- and longer-term learning goals, define a path and monitor progress • Recognize the influence of peers, family and communities on career choices and attitudes toward work • Appreciate the value of new experiences, innovative thinking and risk-taking in broadening their career options	**Personal Development** • Goal-setting strategies • Self-assessment • Project management • Leadership • Problem-solving and decision-making strategies **Connections to Community** • Local and global needs and opportunities • Cultural and social awareness • Volunteer opportunities **Life and Career Plan** • Factors affecting types of jobs in the community • Role of mentors, family, community, school and personal network in decision-making

Learning Standards (continued)

Curricular Competencies	Content
• Explore volunteer opportunities and other new experiences outside school and recognize their value in career development • Apply project management skills to support career development	

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 knowledge
- Identify when and why they or someone they know has not followed a pedestrian safety rule
- Display awareness of real danger associated with not following safe pedestrian practices
- Assess the pedestrian safety practices that students understand, but no longer follow
- Identify conflicting or inaccurate information
- Conduct a self-assessment/self-reflection

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?

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. 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.

If possible, make a link to any stories or current or recent events in the community.

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 slips of paper to each student. Ask the students to write two or three incidents when they did not (or were tempted to not) follow a pedestrian safety rule. Have them include a short description of the circumstances (e.g., following a friend's lead, running late).

Collect the anonymous notes and record them on the board (or ask a few students to compile the information and write it on the board).

Create two separate columns for the list: pedestrian safety rule and circumstance.

If there are only a few rules not followed on the board, ask students to list a few other pedestrian safety rules that might be ignored, and other potential attitudes or circumstances that can work against following road safety rules:

- Not wanting to obey parents or teachers
- Giving in to peer pressure, even when you know it's wrong
- Thinking that pedestrian safety rules only apply to younger children
- Preoccupied with other things — not paying attention
- Poor modelling (e.g., seeing adults and peers not obey pedestrian safety rules)

Freeze-frame-rewind skit

Form small groups of between two and four students and assign a freeze-frame-rewind skit-writing assignment.

The students discover that they have magical powers, allowing them to see two minutes into the future (and, as with many magical powers, they can't tell anyone about it).

- One morning, while walking to school, they see another classmate and view a magical vision of that student becoming the victim of a serious accident as a result of disregarding a pedestrian safety rule
- The assignment is to develop a two-minute skit (actions and dialogue) that will persuade the other student not to disobey the pedestrian safety rule, thereby preventing the tragedy
- Encourage students to consider a variety of dramatic components, including:
  - Allow the tragedy to happen (or almost happen) and then freeze-frame and rewind to the revised action
  - Continue beyond the tragedy to demonstrate the impact of the student's death on friends and classmates (use your judgment)
  - Perform the entire scene in slow motion or high speed
  - Use narration (e.g., interior monologue of the student involved as he/she witnesses the action and reflects on the repercussions)
  - No dialogue

Optional activity

Some groups may prefer to create a digital skit, instead of performing one.

Presentation

- Have the groups perform their skits or share their presentation
- Ask the class about the various strategies, tactics, body language and verbal devices that the hero used to encourage the classmate(s) to follow safe pedestrian practices

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?

Go beyond

Invite a younger class and/or parents to view the skits/presentations.

Personal pledge

Time requirement

This learning plan will take two sessions to complete.

Note: This activity is duplicated in the passenger safety unit and the bicycle safety unit. If it has already been completed, revisit and review it.

Inquiry question

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

Materials and resources

- *Personal pledge* activity sheet on page 24

Learning objectives

Students will:

- Recognize that individuals can have a positive and negative influence on the feelings of others
- Assess how to act as important role models for others by:
  - Identifying personal feelings experienced as a result of positive qualities in others
  - Understanding that role models set an example for others by making healthy lifestyle choices
- Demonstrate effective decision-making, focusing on careful information gathering by considering the value of life experiences and relationships
- Develop a list of qualities that depict positive role models
- Identify positive role models in the present time
- Research positive role models from the past
- Consider how their interests, skills and availability would best match up with available volunteer opportunities in their communities
- Write a personal pledge to be a positive role model in the community
- 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.

Then ask them to provide examples of situations where one friend talks another friend into doing something negative. Ensure 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). 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.

Explain to the class that a person who provides a positive influence for others is defined as a role model. A role model is an individual whose actions set a positive example for others, who has set admirable goals and has worked hard to achieve them, who is admired for their positive qualities and contributions. Encourage the students to think of an individual who is or could be a role model in their lives. Explain that this person can be a celebrity, a fictitious character or someone the students know personally (such as a family member, an older friend, a coach or a teacher).

Positive role models are important because they set examples for people. Anyone can be role model — a teacher, a parent, a friend, an athlete, a relative — but what characteristics or qualities constitute a good role model?

Write the following question on the board: "What qualities do you think a positive role model should possess?" Ask students to brainstorm a list of qualities or characteristics that positive role models possess.

Create a word cloud on the board with these personality adjectives or characteristics. These could include:

- courage
- patience
- trustworthiness
- kindness
- compassion
- generosity
- loyalty
- dependability
- fairness
- responsibility
- honesty
- talent
- determination
- perseverance
- thoughtfulness

Ask the students if they know of some Canadian heroes and role models? A few examples include:

Rick Hansen. When he was 15, he was thrown from the back of a pickup truck he was riding in on his way home from a fishing trip. He injured his spinal cord and became paralyzed from the waist down. Rick Hansen didn't let his disability interfere with his love of sports. He won 19 wheelchair marathons and three world titles, as well as 15 medals: 6 at the Paralympic Games and 9 at the Pan Am Games. He was Canada's Disabled Athlete of the Year in 1979, 1980 and 1982. But he is best known as the "man in motion" for his journey around the globe to prove the potential of people with disabilities and to raise awareness for accessibility. The tour raised over $26 million. His strong will and genuine care for others makes him a true hero.

Shannen Koostachin. She was a youth education advocate from Attawapiskat First Nation, and worked tirelessly to try to convince the federal government to give First Nations children a proper education. Unfortunately, she passed away in a car accident at the age of 15 before her dream could come true. But it did. On June 22, 2012 — the day Shannen would have graduated — construction started for a new school in Attawapiskat. The new school opened in August 2014 (Source: CBC).

Jocelyn Lovell. Jocelyn Lovell was a big hero in Canadian cycling on both the track and the road. He started bicycle racing when he was 13. He competed in three Olympic games and won numerous medals in the Commonwealth Games (including 4 gold medals), Pan American Games (2 gold medals) and World Championships (a silver medal). In 1983, while out for a training ride, he was tragically hit and dragged by a dump truck. The resulting spinal cord injury left him a quadriplegic. He became a major advocate for spinal cord research, but continued to suffer complications from his accident. He died in 2016.

Have the students think about what they want to achieve, who they want to be. For example, **Julie Payette**, the Govenor General of Canada, wanted to be an astronaut. Her career as an astronaut began in 1992, when she was chosen from a pool of 5,330 applicants to become one of four astronauts selected to join the Canadian Space Agency. She worked on an advanced robotics system for Canada and was contributing to the International Space Station before preparing for space, a process that involved getting her pilot's licence, military captaincy and deep-sea diver certification. On May 27, 1999, she blasted into space for the first time on Space Shuttle Discovery as a mission specialist. She made her second trip in June 2009 on the Space Shuttle Endeavour after a seven-year stint as Canada's chief astronaut. When she isn't busy orbiting the earth, Payette enjoys running, skiing, racquet sports and scuba diving. She is an accomplished pianist and has a commercial pilot's licence. She is a strong advocate for discovery and ingenuity, and a beacon for women in STEM — science, technology, engineering and math.

What qualities do you think Julie Payette had that made her realize her dreams and be a good role model? What does endeavour mean? (Answer: try hard to do or achieve something.) What must students endeavour to do to succeed in their goals and be a positive role model? How does making good choices and being a positive role model fit with realizing one's goals?

Ask the students if they know who Clara Hughes is. Clara Hughes is a Canadian cyclist and speed skater and a six-time Olympic medalist. She is the only athlete in history to win multiple medals at both the summer and winter Olympic Games. Did you know she started speed skating at 16 and cycling at 17? She has pursued her dreams through the world of sport, yet her ultimate goal has always been to motivate youth and inspire hope in others through her actions. She is involved with Right To Play, an athlete-driven international humanitarian organization that uses sports to encourage the development of youth in disadvantaged areas, and with Take a Hike, a Vancouver inner city school program that uses adventure-based learning for at-risk youth. She is also known for sharing her struggles with depression to help break down the stigma associated with mental illness.

Ask the students if they can think of other Canadian heroes: Canadians who are famous for their work to unselfishly make a difference.

Explore, research, collaborate

- Group the students into teams of three; have them consider the list of qualities that Julie Payette, Rick Hansen, Jocelyn Lovell, Shannen Koostachin, and Clara Hughes have
- Explain to the students that role models are humans, but because society has an obsession with perfection, sometimes these role models are given hero and even superhero status. Role models and heroes don't have to be celebrities.
- Rick Hansen says that "Everyone has a chance to have heroes or role models in life, and you don't need to go to TV or books. They're in everyday lives, in our families, communities."
- Have the students identify a role model they admire, whom they find inspirational and who they aspire to be like
- Have them research that person and what characteristics they possess. How are they an example of a good role model?
  - Name of role model
  - Identify their major life events
  - What are/were their goals?

- List their achievements
- List their key characteristics
- Identify their positive contributions (directly or indirectly) to the community

Collaborate, plan and present

Have the groups present the information they gathered in any creative way they wish (essay, poem, presentation, song, play, collage, etc.)

Reflect, connect

Have the students make a list of things they can do specifically to be a good role model. Remember that children like to imitate and copy older people. List five things they can do so that children around them learn good pedestrian habits (for example, coaching them to use a crosswalk, wearing a helmet when skateboarding). Explain that **taking action is a form of "volunteering"**.

Community ambassadors

Invite community ambassadors who are working to keep the community safe — a police officer, a firefighter, an ICBC representative — to come in and talk to the students.

Journal

Have students keep an 'endeavour to be a role model' activity journal. Over the course of this unit, have them record situations where they were a good role model and situations where they volunteered in the community.

Personal pledge

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 endeavour to be a positive role model and to take action — to volunteer — in their community.

Activity Sheet

My personal pledge to make a difference in my community

Name

Date

I endeavour to take action — to volunteer — in the community because

My personal qualities that make me a good role model are

Three things I can do to take action — to volunteer — are
1.

2.

3.

A goal of mine is to

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 in the community? How does my personal experience and knowledge connect to text and to developing an understanding of self, community and the world? How can I use a story to convey an important message for younger children?

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
- Recognize causes and consequences of events, decisions or developments (cause and consequence)
- Make value judgments about events, decisions or actions, and suggest lessons that can be learned (ethical judgment)
- 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 Lily Root* (8:41 min.)

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 The Lily Root

Emily Muskrat was 10 years old. She lived with her family on a reserve in Manitoba, north of Lake Winnipeg. Emily had a younger sister named Hattie whom she often looked after.

Emily's father worked for a First Peoples' organization as a community health worker. He visited First Peoples' communities to help develop local health programs. Emily's mother was a teacher's aide at the local school. Emily took care of Hattie on Saturday afternoons when her parents went to town to shop for food.

One Saturday, Emily was playing cat's cradle. Hattie watched her weave the tiny string between her two hands. As Emily continued to create designs, Hattie said, "Show me how to do that." Hattie pointed to the cradle between her sister's hands.

Emily replied, "Spread your hands and fingers." Emily wrapped the string around Hattie's thumbs. "Move your fingers like this," she said as she showed Hattie how to wind the string between her fingers and hands. It was not easy for Hattie to make a cat's cradle.

While Hattie struggled to make a cradle, Peter Crane rode his old bicycle past the girls. Emily made a face at Hattie when they saw Peter because Peter often wore old and worn-out jeans when he played and rode his bicycle. Neither girl spoke to Peter as he went by.

As the two sisters were playing, Old John walked along the path by their home. He saw the two girls playing cat's cradle. Hattie showed Old John her first cat's cradle. Old John smiled and waved the girls over to him. Old John spoke softly to the girls. "I'm going to tell you a story," he said. "It is about the lily root." He motioned to the two girls to sit beside him on the small bench.

Old John began his story: One day, Shomis (used in certain Ojibway-speaking communities to mean 'old man' or 'grandfather') and his grandson were walking in the bush. They came upon a small river with a big pond. Shomis saw some water lilies in the pond. He asked his grandson to get him a lily root. Lily roots were important to Shomis. When he dried the root and ground it into powder, it became medicine. Shomis would use this medicine to keep healthy.

His grandson removed his boots and socks. Then he rolled up his pant legs. When he stepped into the pond, he felt the mud ooze between his toes. Shomis stood on shore and pointed to the lily plant he wanted.

When the boy reached the lily plant, his pants and legs were wet and muddy. The oozing muck from the bottom of the pond was smelly and dirty. He reached into the water quickly to pull out the root.

"Be careful," Shomis told him. "You must not break the root when you pull it up. The medicine will be spoiled if it is taken from a broken root."

When his fingers were around the root, his grandson gave a hard yank. Nothing happened. He put his other hand around it.

"Be careful, now," instructed Shomis.

When he yanked the second time, the boy's shirt became wet with the muddy water. But the root still did not move. The boy could hear his grandfather on the shore. "Reach deeper with both hands," said Shomis.

Very slowly, the boy bent over the beautiful white lily flower. He reached with both hands for a better grip around the root. His shirt sleeves were soaked. He pulled hard. The root refused to budge.

Finally, he realized he would have to get all wet with the muddy water. It still smelled. He held his breath. Quickly, his face went under water. He bent right over the plant with both hands deep around the stubborn root. He pulled and pulled. When the root came free, he almost fell over in the water.

He walked back to shore to Shomis. He was wet from head to toe. His skin was itchy. Mud covered his feet, his pants and his shirt. He carried the lily in his muddied hands.

At one end of the plant was the beautiful white flower. At the other end was the muddy root.

As Shomis cleaned the mud from the lily root, he hummed softly. Then he cut off the flower.

He looked at his grandson who stood beside him. He was wet and muddy. His clothes smelled like the muddy pond. His toes and feet were still slippery with mud. Shomis laughed at the sight of his grandson.

Shomis held the lily root very gently. "This will make me feel strong and healthy," he said to the boy. Next to Shomis, the beautiful white flower lay discarded on the ground. "The root is more important than the flower," he said. "Many people are interested only in the pretty flower," he said. "Remember the lily root."

Hattie and Emily sat quietly next to Old John. They listened carefully to everything Old John told them. The story was over. Old John stood up. He patted Hattie on the head and walked away. Emily and Hattie walked to their house. They, too, would remember the lily root.

Inquiry

After telling the students the story "The Lily Root", ask the students to identify some of the themes of the story. Questions you may want to ask the students are:

- Why did Shomis ask his grandson to get the lily root?
- In the story, the girls ignored Peter as he rode by. Why?
- What effect did Emily's behaviour have on her little sister Hattie?
- What was the grandson's reaction when he had to go into the muddy water?
- Shomis told him that the root was more important than the flower. Can you think of any time when you judged someone by how they looked instead of who they are?
- Do you think Hattie and Emily learned something? What did they learn? Why do you think Old John told the girls the story?
- What was Old John telling the girls?
- What did the grandson learn about the muddy pond?
- What is the moral message in the story?
- Who is the better role model in the story? Old John or Emily?

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 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 object, it is their turn to share thoughts, without interruption, and others have the responsibility to listen
- The object is then passed to the next person in a clockwise direction
- If someone does not want to speak, they pass the object to the next person

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 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

In groups, ask the students to act out a skit exploring the relationships. What could either Emily or Hattie have done differently?

Create a story to convey an important lesson

Have the students choose a pedestrian safety rule someone might not follow (for example, not using a crosswalk). Have them write a story (parable) about that rule to give advice to the listener about making good, safe choices and about setting a good example and the consequences if those choices are not made.

Experience, collaborate, communicate

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

Go beyond

- Have students read/tell their stories
- Buddy with a younger class to read/tell their stories to

Play Cat's Cradle

Cat's cradle is one of the oldest games in history. It involves passing a loop of string back and forth between two or more players. *Watch a YouTube video* (1:59 min.) on how to play the traditional game of Cat's Cradle.

Guest speaker

Liaise with the community — invite a local Elder and/or guest speaker to discuss the importance of role models.

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 hazardous situations?

Materials and resources

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

Learning objectives

Students will:

- Watch and listen to 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, 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
- Identify distractions that place pedestrians at risk
- Experience travelling through distractions
- Conduct a self-assessment/self-reflection

Watch and listen

- 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

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 visibilit — 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

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

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!

Explore, question

Ask the students about the role of the senior student in the videos:

- Discuss some of the character traits that they can identify about this person
- Do the students think that they could take on that role?
- If they had a road safety skills expert helping them, could they serve as a good role model of traffic safety for younger children?
- Is it easy to model good traffic safety skills?
- What are some of the factors that prompt people to not follow traffic safety rules?
- Ask students to share their feelings about being a role model to the younger students
- Are there circumstances that might get in the way (e.g., running late for school, being called by a friend across the street and not using a crosswalk)?

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 a sandwich
- 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**

Toddlers (ages 1–2) are most likely to be injured in driveways, where drivers moving backward are unable to see them. 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. Adolescents are at risk due to walking at night with poor visibility, walking while intoxicated, walking while distracted by phones, etc. What other reasons might account for the high number of injuries among 13- to 18-year-olds?

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

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.

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.

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 page 45
- 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 the *Pedestrian safety skills checklist* on page 45 and 46
- 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.)

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

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 https://www.google.com/maps or MapQuest http://www.mapquest.com/
- 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: Analyze — 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
     - ❑ Made a right turn without checking for pedestrians
     - ❑ Drove through traffic light
     - ❑ Something else _____
     - ❑ Location of problems _____ Did drivers behave well?

Activity Sheet: Analyze — safe route to school checklist, continued

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 of the 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 in 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. Which option is the better one in terms of health and environment benefits and risk? 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 views 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

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

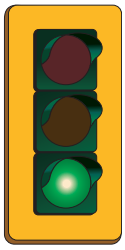
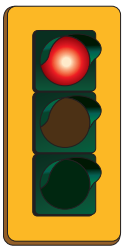
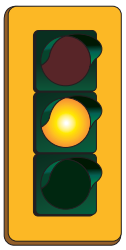
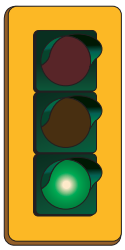
- *Signs and signals* activity sheet on page 54
- *Pedestrian safety skills checklist* on page 59

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

Scenario 1

- Show the younger buddy the images of pedestrian signs, signals
- Ask them which of the signs and signals are familiar to them, 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

 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 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 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 either a complete horizontal, vertical or diagonal row

Activity Sheet

	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.

Activity Sheet — Because statement activity sheet

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 because answer from the list they created together
- Older students practise playing their fortune teller game with each other, 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 either 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 6 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.

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? What have I learned about taking action?

Learning objectives

Students will:

- Promote pedestrian safety skills in the form of a presentation
- Conduct a self-assessment/self-reflection
- Take a pedestrian safety quiz

Quiz Time (example)

1. What is the Danger Zone on a bus?
2. Where should your driver park when they drop you off at school or for the bus?
3. Where is the safest place to cross the road near school?
4. What is the speed limit in a school zone?
5. The bus is coming. Where should you wait for the bus?
6. Your friends ask you to cross the road away from the crosswalk because they think it's cool. What should you do?
7. Your driver is waiting for you across the road. What should you do?
8. Why's it dangerous to cross the street in the middle of a block? Or chase a ball that's rolled onto the street?
9. Why's it important to listen to the school crossing guard?
10. Why do you need to make eye contact with drivers and cyclists and ensure they have stopped before you cross the street?
11. When walking in traffic or crossing the street, what's wrong with wearing headphones or talking or texting on your cellphone?

12. If you were teaching a younger child how to cross the street, what important points would you be sure to share with them?
13. Who else uses the sidewalk?
14. Why watch out for ditches when you walk on a road without sidewalks? What other hazards might you need to watch out for?
15. What's the difference between a transit bus and a school bus when it stops?
16. A friend is taking the school bus for the first time. What safety rules would you share with him/her
17. 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?
18. Why is making eye contact with your bus driver and any other drivers important?
19. How can the clothes that you wear be important?
20. If you hear a train coming, but it's not in sight, do you cross?
21. Why is it dangerous to play on or near train tracks?
22. What tells you that a train is coming?
23. 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.)

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 students
- 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 pedestrian safety rule and identify how the tactics, strategies and/or resources from the recent road safety discussions has 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 pedestrian safety
- Have students record these thoughts in a reflective writing piece or in their journals
- 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.

Journal

Revisit the 'endeavour to be a role model' journal started at the beginning of the unit. Have students reflect on situations where they were a good role model and situations where they volunteered in the community. Have them review and update their personal pledge.

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. What can I do to make a 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
- Demonstrate 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 ages 4 through 12 are injured most by entering into the middle of the street and are 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

Ask the students if they are aware that November tends to be the most dangerous month of the year for pedestrians? Why do they think this is?

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.

Heroes and role models in our community work hard to keep pedestrians safe. For example:

- 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."
- Traffic engineers consider traffic safety by investigating locations with high crash rates and developing countermeasures such as 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
- Who else works in our community to keep pedestrians safe? (ICBC, police….)

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 and 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 campaigning for pedestrian safety (awareness of where and how to both see and be seen). 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 pedestrians safe.

Or have students create PSAs. 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 on pedestrian safety from the PSA website. Discuss how making the public aware might change people's attitudes and behaviour.

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
- Have the students organize one day each week as a "walk-to-school day" in your community. WalktoSchool.org provides tips on how to start up walking events in your school or community
- Invite local community role models to come in and speak to the students about pedestrian safety
- Participate in a HASTe BC Drive-to-five program: A Drive-to-five program enables parents to drop off and pick up their children at predetermined locations that are approximately a 5-minute walk from their school

Feedback or 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.

Ask students:

- 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. According to ICBC, 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 slips of paper to each student. Ask the students to write two or three incidents when they were not a safe passenger, either by their behaviour or by the behaviour of the driver. Have them include a short description of the circumstances (e.g., did not wear a seatbelt, rode in the back of a pickup truck).

Collect the anonymous notes and record them on the board (or ask a few students to compile the information and write it on the board).

Create two separate columns for the list: passenger safety rule and circumstance.

If there are only a few rules not followed on the board, ask students to list a few other passenger safety rules that might be ignored, and other potential attitudes or circumstances that can work against following passenger safety rules:

- Not wanting to obey parents
- Following peer pressure even, when you know it's wrong
- Thinking that road safety rules only apply to younger children
- Preoccupied with other things — not paying attention
- Poor role modelling (e.g., seeing adults and peers not obeying passenger safety rules)

Freeze-frame-rewind skit

Form small groups of between two and four students and assign a freeze-frame-rewind skit-writing assignment:

The students discover that they have magical powers, allowing them to see two minutes into the future (and, as with many magical powers, they can't tell anyone about it).

- One morning, while walking to school, they see another classmate and view a magical vision of that student becoming the victim of a serious accident as a result of either the student or the student's driver disregarding a passenger safety rule
- The assignment is to develop a two-minute skit (actions and dialogue) that will persuade the other driver/student not to disobey the passenger safety rule, thereby preventing the tragedy — this can be digital or acted out
- Encourage students to consider a variety of dramatic components, including:
  - Allow the tragedy to happen (or almost happen) and then freeze-frame and rewind to the revised action
  - Continue beyond the tragedy to demonstrate the impact of the student's death on friends and classmates (use your judgment)
  - Perform the entire scene in slow motion or high speed
  - Use narration (e.g., interior monologue of the student involved as he/she witnesses the action and reflects on the repercussions)
  - No dialogue

Presentation

- Have the groups perform their skits or share their presentations
- Ask the class about the various strategies, tactics, body language and verbal devices that the hero used to encourage the classmate(s) to follow safe pedestrian practices

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 passenger safety rule.

- Summarize the experience
- Why was the passenger 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?

Go beyond

Invite a younger class and/or parents to view the skits/presentations.

Personal pledge

Time requirement

This learning plan will take two sessions to complete.

Note: This activity is duplicated in the passenger safety unit and the bicycle safety unit. If it has already been completed, revisit and review it.

Inquiry question

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

Materials and resources

- *Personal pledge activity* sheet on page 82

Learning objectives

Students will:

- Recognize that individuals can have a positive and negative influence on the feelings of others
- Assess how to act as important role models for others by:
  - Identifying personal feelings experienced as a result of positive qualities in others
  - Understanding that role models set an example for others by making healthy lifestyle choices
- Demonstrate effective decision-making, focusing on careful information gathering by considering the value of life experiences and relationships
- Develop a list of qualities that depict positive role models
- Identify positive role models in the present time
- Research positive role models from the past
- Consider how their interests, skills and availability would best match up with available volunteer opportunities in their communities
- Write a personal pledge to be a positive role model in the community
- 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.

Then ask them to provide examples of situations where one friend talks another friend into doing something negative. Ensure 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). 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.

Explain to the class that a person who provides a positive influence for others is defined as a role model. A role model is an individual whose actions set a positive example for others, who has set admirable goals and has worked hard to achieve them, who is admired for their positive qualities and contributions. Encourage the students to think of an individual who is or could be a role model in their lives. Explain that this person can be a celebrity, a fictitious character or someone the students know personally (such as a family member, an older friend, a coach or a teacher).

Positive role models are important because they set examples for people. Anyone can be role model — a teacher, a parent, a friend, an athlete, a relative — but what characteristics or qualities constitute a good role model?

Write the following question on the board: "What qualities do you think a positive role model should possess?" Ask students to brainstorm a list of qualities or characteristics that positive role models possess.

Create a word cloud on the board with these personality adjectives or characteristics. These could include:

- courage
- patience
- trustworthiness
- kindness
- compassion
- generosity
- loyalty
- dependability
- fairness
- responsibility
- honesty
- talent
- determination
- perseverance
- thoughtfulness

Ask the students if they know of some Canadian heroes and role models? A few examples include:

Rick Hansen. When he was 15, he was thrown from the back of a pickup truck he was riding in on his way home from a fishing trip. He injured his spinal cord and became paralyzed from the waist down. Rick Hansen didn't let his disability interfere with his love of sports. He won 19 wheelchair marathons and three world titles, as well as 15 medals: 6 at the Paralympic Games and 9 at the Pan Am Games. He was Canada's Disabled Athlete of the Year in 1979, 1980 and 1982. But he is best known as the "man in motion" for his journey around the globe to prove the potential of people with disabilities and to raise awareness for accessibility. The tour raised over $26 million. His strong will and genuine care for others makes him a true hero.

Shannen Koostachin. She was a youth education advocate from Attawapiskat First Nation, and worked tirelessly to try to convince the federal government to give First Nations children a proper education. Unfortunately, she passed away in a car accident at the age of 15 before her dream could come true. But it did. On June 22, 2012 — the day Shannen would have graduated — construction started for a new school in Attawapiskat. The new school opened in August 2014 (Source: CBC).

Jocelyn Lovell. Jocelyn Lovell was a big hero in Canadian cycling on both the track and the road. He started bicycle racing when he was 13. He competed in three Olympic games and won numerous medals in the Commonwealth Games (including 4 gold medals), Pan American Games (2 gold medals) and World Championships (a silver medal). In 1983, while out for a training ride, he was tragically hit and dragged by a dump truck. The resulting spinal cord injury left him a quadriplegic. He became a major advocate for spinal cord research, but continued to suffer complications from his accident. He died in 2016.

Have the students think about what they want to achieve, who they want to be. For example, **Julie Payette**, the Govenor General of Canada, wanted to be an astronaut. Her career as an astronaut began in 1992, when she was chosen from a pool of 5,330 applicants to become one of four astronauts selected to join the Canadian Space Agency. She worked on an advanced robotics system for Canada and was contributing to the International Space Station before preparing for space, a process that involved getting her pilot's licence, military captaincy and deep-sea diver certification. On May 27, 1999, she blasted into space for the first time on Space Shuttle Discovery as a mission specialist. She made her second trip in June 2009 on the Space Shuttle Endeavour after a seven-year stint as Canada's chief astronaut. When she isn't busy orbiting the earth, Payette enjoys running, skiing, racquet sports and scuba diving. She is an accomplished pianist and has a commercial pilot's licence. She is a strong advocate for discovery and ingenuity, and a beacon for women in STEM — science, technology, engineering and math.

What qualities do you think Julie Payette had that made her realize her dreams and be a good role model? What does endeavour mean? (Answer: try hard to do or achieve something.) What must students endeavour to do to succeed in their goals and be a positive role model? How does making good choices and being a positive role model fit with realizing one's goals?

Ask the students if they know who Clara Hughes is. Clara Hughes is a Canadian cyclist and speed skater and a six-time Olympic medalist. She is the only athlete in history to win multiple medals at both the summer and winter Olympic Games. Did you know she started speed skating at 16 and cycling at 17? She has pursued her dreams through the world of sport, yet her ultimate goal has always been to motivate youth and inspire hope in others through her actions. She is involved with Right To Play, an athlete-driven international humanitarian organization that uses sports to encourage the development of youth in disadvantaged areas, and with Take a Hike, a Vancouver inner city school program that uses adventure-based learning for at-risk youth. She is also known for sharing her struggles with depression to help break down the stigma associated with mental illness.

Ask the students if they can think of other Canadian heroes: Canadians who are famous for their work to unselfishly make a difference.

Explore, research, collaborate

- Group the students into teams of three; have them consider the list of qualities that Julie Payette, Rick Hansen, Jocelyn Lovell, Shannen Koostachin, and Clara Hughes have
- Explain to the students that role models are humans, but because society has an obsession with perfection, sometimes these role models are given hero and even superhero status. Role models and heroes don't have to be celebrities.
- Rick Hansen says that "Everyone has a chance to have heroes or role models in life, and you don't need to go to TV or books. They're in everyday lives, in our families, communities."
- Have the students identify a role model they admire, whom they find inspirational and who they aspire to be like
- Have them research that person and what characteristics they possess. How are they an example of a good role model?
  - Name of role model
  - Identify their major life events
  - What are/were their goals?
  - List their achievements
  - List their key characteristics
  - Identify their positive contributions (directly or indirectly) to the community

Collaborate, plan and present

Have the groups present the information they gathered in any creative way they wish (essay, poem, presentation, song, play, collage, etc.)

Reflect, connect

Have the students make a list of things they can do specifically to be a good role model. Remember that children like to imitate and copy older people. List five things they can do so that children around them learn good pedestrian habits (for example, coaching them to use a crosswalk, wearing a helmet when skateboarding). Explain that taking action is a form of "volunteering".

Community ambassadors

Invite community ambassadors who are working to keep the community safe — a police officer, a firefighter, an ICBC representative — to come in and talk to the students.

Journal

Have students keep an 'endeavour to be a role model' activity journal. Over the course of this unit, have them record situations where they were a good role model and situations where they volunteered in the community.

Personal pledge

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 endeavour to be a positive role model and to take action — to volunteer — in their community.

Activity Sheet

My personal pledge to make a difference in my community

Name

Date

I endeavour to take action — to volunteer — in the community because

My personal qualities that make me a good role model are

Three things I can do to take action — to volunteer — are
1.

2.

3.

A goal of mine is to

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 (4 egg slots each)
- Tape
- *Predictions and results worksheet* on page 87
- Statistics on death/injuries related to no seatbelts or incorrect seatbelts

Reflect and connect

Explain to the students that each year in B.C., an average of 1,300 children aged nine 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.

The chances of surviving a motor vehicle accident increase dramatically if the passengers are wearing their seatbelt properly. Seatbelts hold the passenger 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? (Keeps you securely fastened in your seat.)
- Why is it a law? (because it is one of the best ways to protect yourself from getting injured or even killed in a crash.)
- 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?
- Ask if any of the students know someone who has been in an automobile crash
- Have they heard any stories of wearing a seatbelt saving a life?
- Ask students what they think the term "the human crash" means
- Explain to students about "the human crash": It all happens in less than two seconds. First there is the vehicle impact. It crashes, crushes and stops. Then there's a second, more devastating crash — the human crash. On impact, occupants continue moving at the speed of the vehicle. Unbelted occupants will continue moving through the car until they smash into the interior, other occupants, or go through the windshield. Bad news!

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

Discuss head restraints:

Ask students what they already know about head restraints and whiplash. Demonstrate in slow motion: lean forward in your chair then lean back into the backrest and allow your neck to roll back gently.

- Almost two-thirds of collisions cause soft-tissue injuries that are most commonly referred to as whiplash
- Good head restraint design and proper adjustment may prevent the risk of this type of injury
- A head restraint can help stop your head and neck from bending backward in the case of a collision
- You should adjust the head restraint every time you get into any vehicle
- Explain that there are two ways to know if the head restraint is in the right position:
  - Is it high enough? It has to be at least level with the top of your ears.
  - Is it close enough? It has to be less than 10 centimetres from the back of your head (closer head restraints are twice as good at preventing injuries as those set too far back).

Predict and experiment — option 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. Explain to the students that you will be conducting an experiment.

- 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?

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

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?

Have the students compose a reflective writing piece about what they learned about buckling up, adjusting the head restraint properly and their responsibility as a role model.

Predict and experiment — option 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 has hit 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?
- Explain that in a crash at 50 kilometres/hour, an unrestrained child would be thrown forward with a force comparable to falling from a three-storey building

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?

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
- Statistics on death/injuries related to speeding
- Images of school zone speed limit, in town speed limit and highway speed limit


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. 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 on the highway (100 kilometres/hour) and on some freeways (120 kilometres/hour) and medium-fast in town (50 kilometres/hour). 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.

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 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.

Activity

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/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/hour for 12 kilometres, how long will it take to finish your ride?
- If you walk to school every day, calculate your average speed if it takes you 30 minutes to go 1.5 kilometre
- A taxi travels 5 kilometres at a constant speed of 120 kilometres/hour, and another 33 kilometres at a constant speed of 100 kilometres/hour. How much time in total does it take to travel these distances?
- It takes you one hour to walk to your friend's place, but it only takes you 20 minutes to ride your bike there. How much faster do you travel when you ride your bike?

- On your way to school, you watch the speedometer as your Mom drives. You notice that she drove 80 kilometres/hour for 10 minutes, 60 kilometres/hour for 5 minutes and 40 kilometres/hour for 2 minutes. What's the distance to your school?
- If you run at an average rate of 12 kilometres/hour, how long will it take you to run 10 kilometres ?
- The distance from Vancouver to Hope is 153 kilometres. If you travel at an average speed of 100 kilometres/hour, how long will it take iIn hours and minutes) to get to Hope?

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 as 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 and 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, why does speeding continue to occur?
- What are the police, ICBC, organizations 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

- 5 chairs (2 in front and 3 behind)
- Distracted driving statistics
- *Distraction tally* activity sheet on page 102

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?

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 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 the Insurance Corp. of B.C., 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 — Distraction tally

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?

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?

Investigate

Look up the amount of a fine or number of Driver Penalty Points for a traffic or driving offence in British Columbia.

- What is the fine for speeding in a school zone?
- What is the fine for speeding in a playground zone?
- What is the fine for excessive speed?
- What is the fine for distracted driving?
- What is the fine for not wearing a seatbelt?
- What is the fine for impaired driving?

Fun with numbers

Based on the information on fines, compute the following:

- How many distracted driving violation tickets would the class have handed out?
- How much money in fines is that in one day? One week?
- Graph the number of distractions each day of the week. Compare the results

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 on page 104 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)

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 and 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 has occurred just 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 a horse, 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 one of the first cars to have electric turn signals fitted wasn't 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.

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

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

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 until 1983.

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 standard is 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 Detroit was the first U.S. city to use stop signs, lane markings, and traffic signals?

Around 1908, the city realised 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 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 2000 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.

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.

Speak up against distracted and impaired driving

Time requirement

This learning plan will take two sessions to complete.

Inquiry question

What should responsible passengers do when they think their driver is engaging in unsafe behaviour?

Learning objectives

Students will:

- Demonstrate problem-solving skills
- Identify problems and make decisions

Resources

- *Speak up against impaired driving* activity sheet on page 113
- *Impairment* handout on page 112

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.

Explore

Ask students to consider what responsible passengers should do when they think their driver is engaging in unsafe behaviour.

- Discuss the factors that make it easy, or more difficult, to speak up to the driver about unsafe behaviour:
  - Age
  - Cultural differences about "telling adults what to do"
  - Formality
  - Unfamiliarity, peer pressure to "chill", etc.
- What are some of the short- and long-term consequences that result from unsafe driving behaviour?
- What are some ways in which a passenger might minimize the dangers associated with the unsafe behaviour of a driver?

Engage, experience

Distribute *Speak up against impaired driving* activity sheet on page 113 and form small groups of three or four students. Explain to students that each group will be asked to prepare a role play based on the scenario that results from a roll of the dice and the numbers in the chart (see below). Have each group roll a die three times (or three differently coloured die all at once) to select their scenario from the chart.

Impairment

Most drivers are aware of the affect that things like drinking and cellphone use have on their driving, while giving little consideration to other factors that can be even more distracting. Fatigue, stress, and our emotions have a serious effect on driving, causing serious impairments that we may not even be aware of. If you are worried, upset, frightened, depressed, or even happily excited, your driving skills can be as negatively impacted as they would be if you were engaged in an intense phone call or after having consumed several alcoholic drinks.

How impairment affects one's ability to drive		
Ability	**Symptoms**	**Effects**
See	• tendency to stare	• eyes cannot take in information quickly enough
	• eyes lose reflex abilities	• can be blinded by glare
	• reduced coordination of images	• sees double
	• reduced depth perception	• cannot judge distance and speed of other vehicles
	• reduced peripheral vision	• may not see hazards approaching from the side
Think	• reasoning becomes unclear • reduced concentration • emotional state becomes unstable • awareness is reduced	• thinks mental ability is sharp; however, cannot make smart riding decisions
Do	• reduced muscle control	• cannot coordinate steering and braking
	• increased impulsiveness	• takes greater risks by speeding or taking chances
	• reduced coordination	• over-steers or under-steers • brakes too hard or not hard enough
	• slowed reaction time	• cannot make turns accurately • cannot react to emergencies quickly

Activity Sheet — Speak up against impaired driving

# rolled	context/place	# rolled	driver	# rolled	impairment
1	rain/city traffic	1	your parent	1	alcohol
2	night/city traffic	2	friend's parent	2	stress
3	rain/school traffic	3	older sibling	3	cellphone/text
4	snow/school traffic	4	friend's older sibling	4	heart break/emotion
5	rain/highway	5	babysitting parent	5	anger
6	night/highway	6	soccer coach	6	music too loud

Road safety topic: _____

Scenario: _____

_____

_____

_____

Safety risk:

Potential consequence:

Immediate strategies that come to mind for passenger to assert themselves:

1)

2)

3)

Other strategies from the class:

4)

5)

6)

7)

Other strategies from parent or guardian:

8)

9)

10)

Sample scenario: dice rolled as 2, 5, 1

You recently started babysitting for your parents' friends as a way to make extra pocket money. Tonight you are babysitting 2-year-old Arthur Clarke, who lives on the other side of town. When Mr. and Mrs. Clarke come home just after midnight, you notice that their faces are flushed and they are talking much louder than usual. You wonder if they've been drinking. Mr. Clarke offers to drive you home and you reluctantly agree because you don't feel that you have a choice. When you get into the car, you realize that your suspicions are correct. Mr. Clarke smells like alcohol and he slurs his words slightly when he speaks. He isn't driving very well, either. His turns are slow and wide, and he rolls through two stop signs. You are getting increasingly uncomfortable, but you don't want to offend your father's friend. What should you do?

- Allow five to 10 minutes for each group to begin discussing their scenario
- Briefly regroup as a class to discuss their initial feelings about the situation
- Assure the students that being assertive under these circumstances is very difficult and many adults have lacked the courage to speak up when they knew they should
- As they continue working, encourage the students to reflect on:
  - Why is this a difficult thing to do?
  - Why is it sometimes uncomfortable to be direct and honest?
  - What other alternatives (e.g., take a cab, call their parent to pick them up) could they use in this situation?
  - In their groups, students should record possible strategies that they might use to assert themselves and express their concern about the driver's behaviour without being rude or causing offence
  - As a class, have someone from each group briefly describe their assigned scenario, and their first attempt to identify assertive communication strategies to alleviate the potential for danger in that situation
  - Record this class list of assertive communication strategies and allow time for each student to record these strategies on their sheet (or a blank sheet of paper)

Go beyond

Consider sending the sheet home as an assignment. You might want to draft a short explanation requesting the participation of parents or guardians (or an adult the student feels comfortable turning to for help) in the road safety topics and either post it on the school/class web page or send it home in a note.

- Have the students bring their sheet home to discuss the scenario with their parent or guardian
- Encourage your students to discuss the assignment and work together to come up with some different strategies for responding to the scenario
- Try to create several preventative measures that may reduce the student's risk of finding themselves in this impairment scenario above
- Create a safe-passenger pledge for your family that could either prevent or respond to this impairment scenario. For example:
  - Parent: You can always call me at any time if you need a ride home. Just use our safe word "Blueberry" in the conversation and I'll know that you aren't able to tell me the full story.
- If this safe person is an aunt/uncle/friend's parent, be sure to remind the student to learn that person's phone number off by heart (in addition to programming it into a cellphone)
- Follow up in class by allowing the small groups to discuss their full list of strategies and choose two or three that they wish to incorporate into a short role play portraying a safe resolution to this scenario. Have each group perform their skit

Reflect and connect

- Ask students to describe what they think of when they hear the term "roll the dice"
- How is this term a metaphor for taking a chance?
- How can the students reduce their risk of injury in a potentially impaired driving situation?
- Do they consider their family pledge to be a tool to reduce that risk?
- Encourage students to hand in their family pledges so that they can be read out anonymously

Self-reflection

Ask each student to write a short reflection piece, covering:

- Did they feel supported in speaking with their parent/guardian/other adult about the topic?

- How did they feel about their family pledge?
- Do they think that their family pledge could benefit from some of the examples from their classmates?

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.

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.

Go beyond

- Invite a police officer or first responder to speak to the class
- Invite a representative from Mothers Against Drunk Drivers (MADD) 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

Materials and resources

- Statistics on children injured/killed in crashes in B.C.
- Problem-solving traffic light

Reflect and connect

Did you know that each year in B.C., an average of 1,300 children aged nine 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.

(Source: ICBC — Child car seats)

Background information

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

Assessing the risks

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?

Part 1 — Strategizing

Use the problem-solving traffic light to discuss strategies to use in these scenarios to ensure every passenger stays safe?

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).

- 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?

Activity Sheet: 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.

Ready, set, go.... safety checklist	
Are the doors locked?	
Are all the passengers buckled in? Check and double-check.	
Is the driver free from distractions?	
Is the driver free from impairments?	
Did the driver put the cellphone 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? What have I learned about taking action?

Learning objectives

Students will:

- Review what they learned in this unit
- Complete a quiz
- Participate in a talking circle
- Review their personal pledge
- Conduct a self-assessment/self-reflection

Quiz Time (true or false)

- In a severe accident, you have a better chance of surviving if you are not wearing a seatbelt and are thrown from the car (f)
- Driving when you are sleepy can be as dangerous as driving when you are drunk (t)
- If your car has an airbag, you don't need to wear a seatbelt (f)
- Never buckle a child safety seat into the front seat of a car that has an airbag (t)
- Seatbelts and child safety seats are necessary only for long-distance driving or for travelling at fast speeds (f)
- If your car doesn't have an airbag, children can ride safely in the front seat (f)
- Both drivers and passengers aged 16 years and over can be fined if they fail to wear a seatbelt (t)
- Sharing a seatbelt is legal (f)
- Drivers are not responsible for ensuring passengers are buckled in safely (f)
- It is OK to put your shoulder strap behind your back if it is bothersome to your neck (f)

Review Activity (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 they have on a strip of paper. 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?
- Is it legal for an adult to hold a baby tightly if there isn't a restraint available?
- Is it legal to ride in the back of a pickup truck? Why not? (Rick Hansen example)

Talking Circle — Speaking to Communicate

Self-reflection

Have students sit in a circle and place an object (e.g., feather, rock, stick) in the middle of the circle.

Review 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.

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 object, it is their turn to share thoughts, without interruption, and others have the responsibility to listen
- The object is then passed to the next person in a clockwise direction
- If someone does not want to speak, they pass the 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 studens 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)?

Journal

Revisit the 'endeavour to be a role model' journal started at the beginning of the unit. Have students reflect on situations where they were a good role model and situations where they volunteered in the community.

Have them review and update their personal pledge.

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
- Review their personal pledge

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 nine 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.

Reflect and connect

How can these numbers be reduced? What can they do personally?

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 symbol of wisdom and courage demonstrates that doing something is better than doing nothing at all.

Heroes and role models in our community work hard to keep pedestrians safe. For example:

- 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."
- Traffic engineers consider traffic safety by investigating locations with high crash rates and developing countermeasures such as 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
- Who else works in our community to keep pedestrians safe? (ICBC, police, volunteer crossing guards.)

Explore, design and present

In groups, 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 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 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. 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

Additional resources for parents and caregivers

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

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

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.

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?

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.

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 slips of paper to each student. Ask the students to write two or three incidents when they were not a safe cyclist.

Collect the anonymous notes and record them on the board (or ask a few students to compile the information and write it on the board).

- Create two separate columns for the list: bicycle safety rule and circumstance
- If there are only a few rules not followed on the board, ask students to list a few other safety rules that might be ignored, and other potential attitudes or circumstances that can work against following road safety rules:
  - Not wanting to obey parents or teachers
  - Following peer pressure, even when you know it's wrong
  - Thinking that safety rules only apply to younger children
  - Preoccupied with other things — not paying attention
  - Poor modelling (e.g., seeing adults and peers not obey safety rules)

Freeze-frame-rewind skit

Form small groups of between two and four students and assign a freeze-frame-rewind skit-writing assignment:

The students discover that they have magical powers, allowing them to see two minutes into the future (and, as with many magical powers, they can't tell anyone about it).

- One morning while cycling to school, they see another classmate and view a magical vision of that student becoming the victim of a serious accident as a result of disregarding a bicycle safety rule
- The assignment is to develop a two-minute skit (actions and dialogue) that will persuade the other student not to disobey the bicycle safety rule, thereby preventing the tragedy — this can be digital or acted out
- Encourage students to consider a variety of dramatic components, including:
  - Allow the tragedy to happen (or almost happen) and then freeze-frame and rewind to the revised action
  - Continue beyond the tragedy to demonstrate the impact of the student's death on friends and classmates (use your judgment)
  - Perform the entire scene in slow motion or high speed
  - Use narration (e.g., interior monologue of the student involved as he/she witnesses the action and reflects on the repercussions)
  - No dialogue

Presentation

- Have the groups perform their skits or presentations
- Ask the class about the various strategies, tactics, body language and verbal devices that the hero used to encourage the classmate(s) to follow safe pedestrian practices

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 bicycle safety rule.

- Summarize the experience
- Why was the bicycle 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?

Go beyond

Invite a younger class and/or parents to view the skits/presentations.

Personal pledge

Time requirement

This learning plan will take two sessions to complete.

Note: This activity is duplicated in the passenger safety unit and the bicycle safety unit. If it has already been completed, revisit and review it.

Inquiry question

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

Materials and resources

- *Personal pledge* activity sheet on page 137

Learning objectives

Students will:

- Recognize that individuals can have a positive and negative influence on the feelings of others
- Assess how to act as important role models for others by:
  - Identifying personal feelings experienced as a result of positive qualities in others
  - Understanding that role models set an example for others by making healthy lifestyle choices
- Demonstrate effective decision-making, focusing on careful information gathering by considering the value of life experiences and relationships
- Develop a list of qualities that depict positive role models
- Identify positive role models in the present time
- Research positive role models from the past
- Consider how their interests, skills and availability would best match up with available volunteer opportunities in their communities
- Write a personal pledge to be a positive role model in the community
- 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.

Then ask them to provide examples of situations where one friend talks another friend into doing something negative. Ensure 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). 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.

Explain to the class that a person who provides a positive influence for others is defined as a role model. A role model is an individual whose actions set a positive example for others, who has set admirable goals and has worked hard to achieve them, who is admired for their positive qualities and contributions. Encourage the students to think of an individual who is or could be a role model in their lives. Explain that this person can be a celebrity, a fictitious character or someone the students know personally (such as a family member, an older friend, a coach or a teacher).

Positive role models are important because they set examples for people. Anyone can be role model — a teacher, a parent, a friend, an athlete, a relative — but what characteristics or qualities constitute a good role model?

Write the following question on the board: "What qualities do you think a positive role model should possess?" Ask students to brainstorm a list of qualities or characteristics that positive role models possess.

Create a word cloud on the board with these personality adjectives or characteristics. These could include:

- courage
- patience
- trustworthiness
- kindness
- compassion
- generosity
- loyalty
- dependability
- fairness
- responsibility
- honesty
- talent
- determination
- perseverance
- thoughtfulness

Ask the students if they know of some Canadian heroes and role models? A few examples include:

Rick Hansen. When he was 15, he was thrown from the back of a pickup truck he was riding in on his way home from a fishing trip. He injured his spinal cord and became paralyzed from the waist down. Rick Hansen didn't let his disability interfere with his love of sports. He won 19 wheelchair marathons and three world titles, as well as 15 medals: 6 at the Paralympic Games and 9 at the Pan Am Games. He was Canada's Disabled Athlete of the Year in 1979, 1980 and 1982. But he is best known as the "man in motion" for his journey around the globe to prove the potential of people with disabilities and to raise awareness for accessibility. The tour raised over $26 million. His strong will and genuine care for others makes him a true hero.

Shannen Koostachin. She was a youth education advocate from Attawapiskat First Nation, and worked tirelessly to try to convince the federal government to give First Nations children a proper education. Unfortunately, she passed away in a car accident at the age of 15 before her dream could come true. But it did. On June 22, 2012 — the day Shannen would have graduated — construction started for a new school in Attawapiskat. The new school opened in August 2014 (Source: CBC).

Jocelyn Lovell. Jocelyn Lovell was a big hero in Canadian cycling on both the track and the road. He started bicycle racing when he was 13. He competed in three Olympic games and won numerous medals in the Commonwealth Games (including 4 gold medals), Pan American Games (2 gold medals) and World Championships (a silver medal). In 1983, while out for a training ride, he was tragically hit and dragged by a dump truck. The resulting spinal cord injury left him a quadriplegic. He became a major advocate for spinal cord research, but continued to suffer complications from his accident. He died in 2016.

Have the students think about what they want to achieve, who they want to be. For example, **Julie Payette**, the Govenor General of Canada, wanted to be an astronaut. Her career as an astronaut began in 1992, when she was chosen from a pool of 5,330 applicants to become one of four astronauts selected to join the Canadian Space Agency. She worked on an advanced robotics system for Canada and was contributing to the International Space Station before preparing for space, a process that involved getting her pilot's licence, military captaincy and deep-sea diver certification. On May 27, 1999, she blasted into space for the first time on Space Shuttle Discovery as a mission specialist. She made her second trip in June 2009 on the Space Shuttle Endeavour after a seven-year stint as Canada's chief astronaut. When she isn't busy orbiting the earth, Payette enjoys running, skiing, racquet sports and scuba diving. She is an accomplished pianist and has a commercial pilot's licence. She is a strong advocate for discovery and ingenuity, and a beacon for women in STEM — science, technology, engineering and math.

What qualities do you think Julie Payette had that made her realize her dreams and be a good role model? What does endeavour mean? (Answer: try hard to do or achieve something.) What must students endeavour to do to succeed in their goals and be a positive role model? How does making good choices and being a positive role model fit with realizing one's goals?

Ask the students if they know who Clara Hughes is. Clara Hughes is a Canadian cyclist and speed skater and a six-time Olympic medalist. She is the only athlete in history to win multiple medals at both the summer and winter Olympic Games. Did you know she started speed skating at 16 and cycling at 17? She has pursued her dreams through the world of sport, yet her ultimate goal has always been to motivate youth and inspire hope in others through her actions. She is involved with Right To Play, an athlete-driven international humanitarian organization that uses sports to encourage the development of youth in disadvantaged areas, and with Take a Hike, a Vancouver inner city school program that uses adventure-based learning for at-risk youth. She is also known for sharing her struggles with depression to help break down the stigma associated with mental illness.

Ask the students if they can think of other Canadian heroes: Canadians who are famous for their work to unselfishly make a difference.

Explore, research, collaborate

- Group the students into teams of three; have them consider the list of qualities that Julie Payette, Rick Hansen, Jocelyn Lovell, Shannen Koostachin, and Clara Hughes have
- Explain to the students that role models are humans, but because society has an obsession with perfection, sometimes these role models are given hero and even superhero status. Role models and heroes don't have to be celebrities.
- Rick Hansen says that "Everyone has a chance to have heroes or role models in life, and you don't need to go to TV or books. They're in everyday lives, in our families, communities."
- Have the students identify a role model they admire, whom they find inspirational and who they aspire to be like
- Have them research that person and what characteristics they possess. How are they an example of a good role model?
  - Name of role model
  - Identify their major life events
  - What are/were their goals?

- List their achievements
- List their key characteristics
- Identify their positive contributions (directly or indirectly) to the community

Collaborate, plan and present

Have the groups present the information they gathered in any creative way they wish (essay, poem, presentation, song, play, collage, etc.)

Reflect, connect

Have the students make a list of things they can do specifically to be a good role model. Remember that children like to imitate and copy older people. List five things they can do so that children around them learn good pedestrian habits (for example, coaching them to use a crosswalk, wearing a helmet when skateboarding). Explain that taking action is a form of "volunteering".

Community ambassadors

Invite community ambassadors who are working to keep the community safe — a police officer, a firefighter, an ICBC representative — to come in and talk to the students.

Journal

Have students keep an 'endeavour to be a role model' activity journal. Over the course of this unit, have them record situations where they were a good role model and situations where they volunteered in the community.

Personal pledge

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 endeavour to be a positive role model and to take action — to volunteer — in their community.

Activity Sheet

My personal pledge to make a difference in my community

Name

Date

I endeavour to take action — to volunteer — in the community because

My personal qualities that make me a good role model are

Three things I can do to take action — to volunteer — are
1.

2.

3.

A goal of mine is to

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

- *Rules of the road* handout on page 145
- *Hand signals for cyclists* handout on page 143
- *Picture a rule* activity sheet on page 149
- Videos:
  - *Getting ready to ride* (2:16 min.)
  - *Riding for real* (2:49 min.)
  - *Bike Handling Skills* (2:34 min.)
- YouTube video — *Bicycle Safety: Getting Doored* (1:00 min.)
- YouTube video — *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 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 tricks
- 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 can see you
- When you're walking or biking make sure that cars have stopped in ALL lanes before proceeding

Watch and Listen

Getting doored:

- Watch the YouTube video: *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

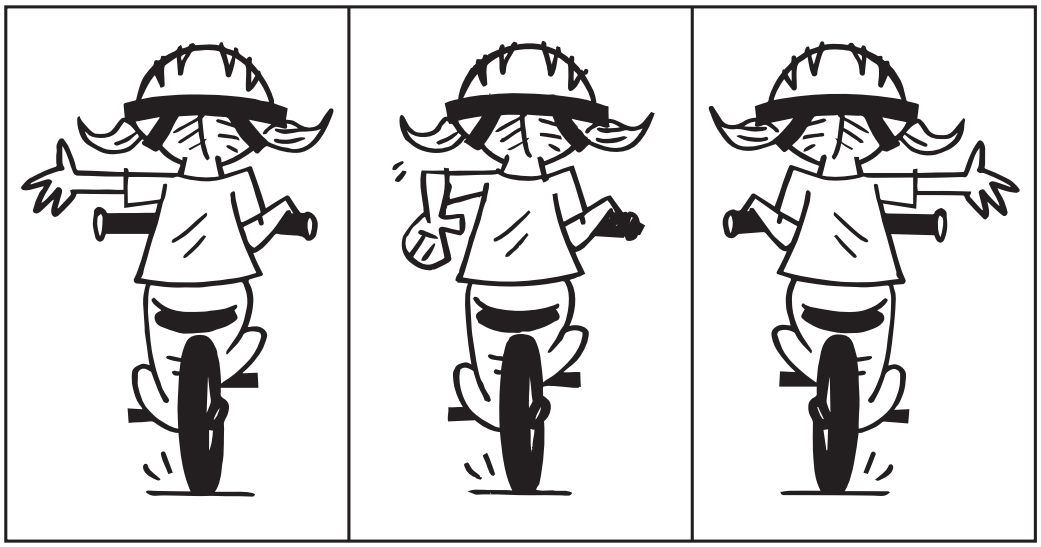
What are the hand signals? Review the hand signals handout and practise the hand signals:

- 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's 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
- *The Bike Smarts rules of road* on page 145

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.

Activity — picture a rule

- Complete the *picture a rule* activity sheet on page 149

Did you know

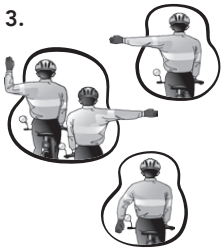
Did you know that, under the *Motor Vehicle Act*, a person operating a bicycle:

- 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
- 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 metres 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, and
  - A lighted lamp, mounted and visible to the rear, displaying a red light

Inquire, reflect and connect

- Ask the students about the role of the senior student in the videos
- Discuss some of the character traits that they can identify about this person
- Do the students think that they could take on that role?
- If they had a bicycle safety skills expert helping them, could they serve as a good role model of bicycle safety for younger children?
- Is it easy to model good bicycle safety skills?
- What are some of the factors that prompt people to not follow bicycle safety rules?
- Ask students to share their feelings about being a role model to the younger students
- Are there circumstances that might get in the way?

Activity Sheet — picture a rule

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

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, 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
- Conduct a self-assessment/self-reflection

Materials and resources

- Flashlight
- Reflective material
- See how many crashes involving cyclists, and motorcyclists are happening across B.C.
  - Cyclists
  - Motorcycles
- ICBC statistics on cyclist injuries and casualties
- YouTube videos
  - *Bicycle Safety: Protect Your Head!* (0:36 min.)

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.

	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

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.

Watch and listen

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 from 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 sac 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 millmetres 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 on 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 of the 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 into 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 reminded someone to follow a bicycle safety rule (reminded them to wear a helmet for example or walk their bicycle across a crosswalk), or where they could have reminded someone to follow a bicycle safety rule and did not.

- Summarize the experience
- What did they say or could have said?
- 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.)
- *Bike parts* activity sheet, on page 164
- *Bike parts answer key* on page 165
- *Pictures of bicycles through the ages* on page 158

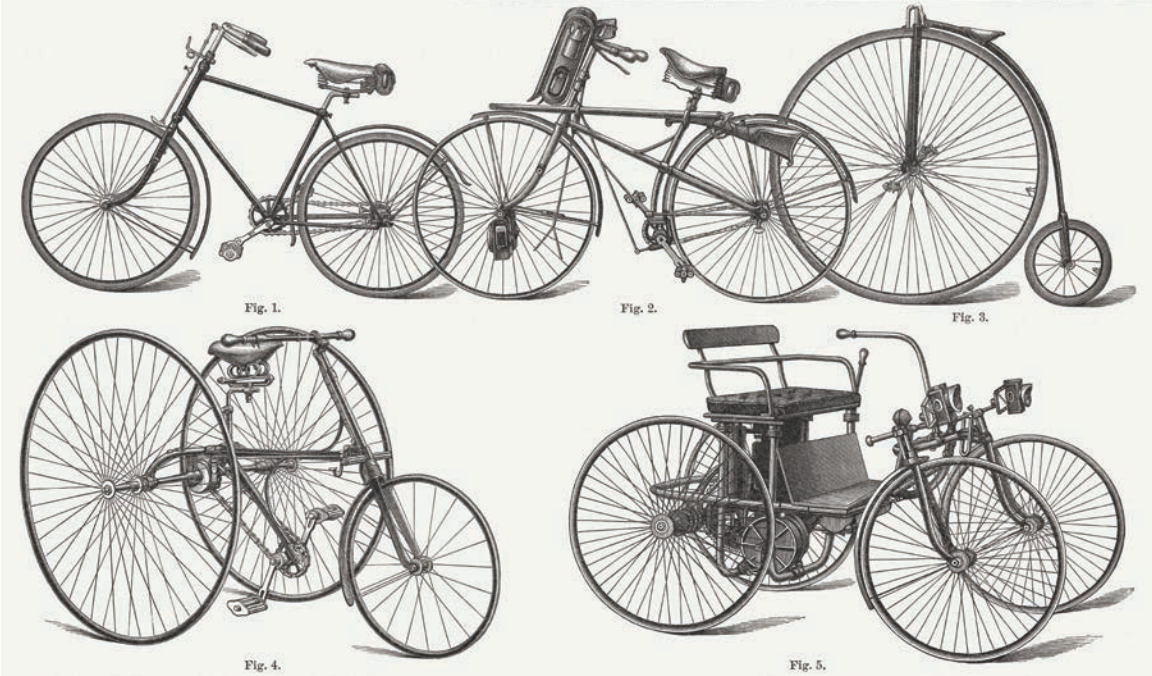


Fig. 1.
Fig. 2.
Fig. 3.
Fig. 4.
Fig. 5.

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

Video 1: Equipment (3:18 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's 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

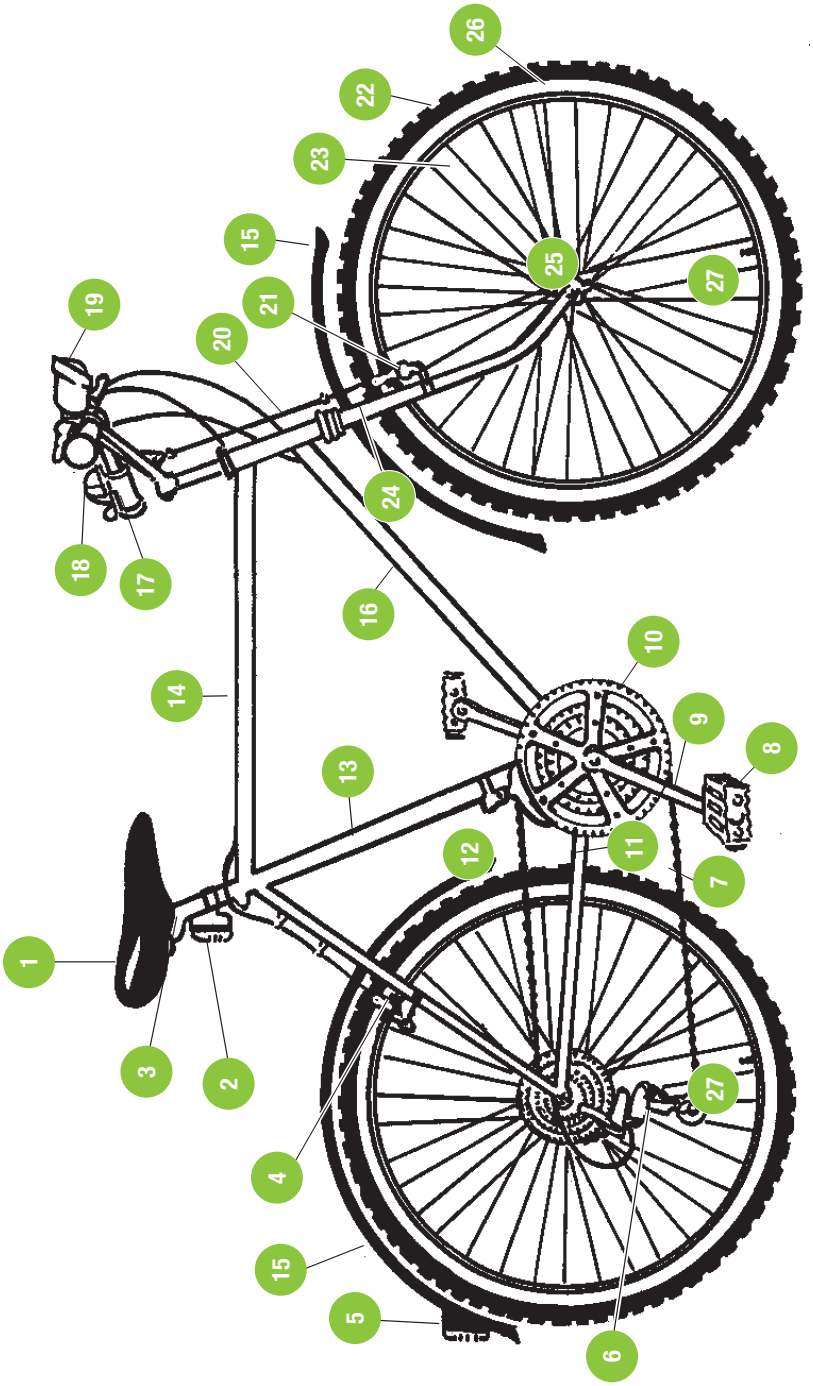
Research, plan and present

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

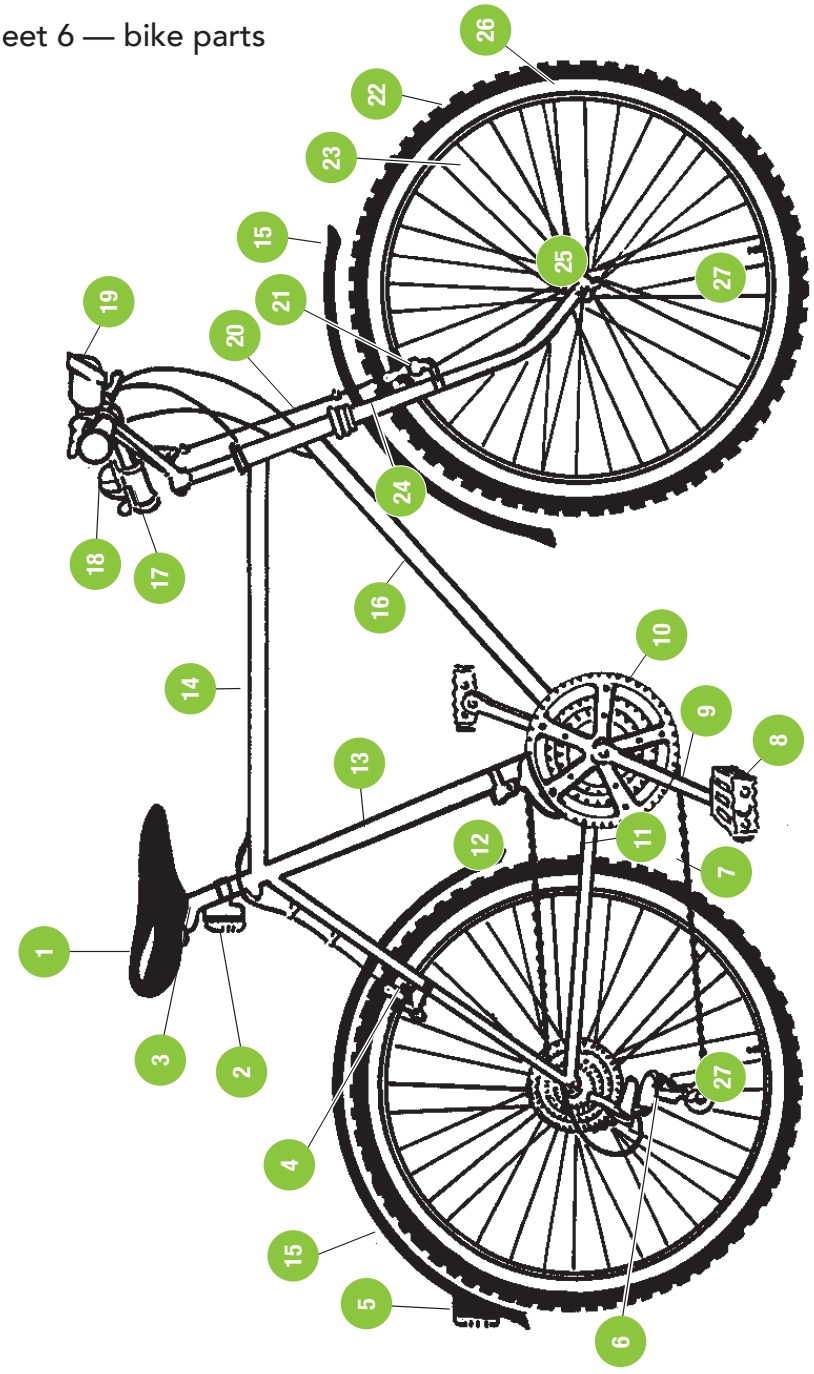
Explain the parts of the bicycle. Have the students label the bicycle parts.

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

- *Pedestrian safety skills* activity sheet on page 173 and 174
- Map of neighbourhood between home and school (city map, school district map, Google maps, etc.)
- Colour markers or highlighters

Reflect and connect

- Distribute the *Pedestrian safety skills* activity sheet on pages 173 and 174
- 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?

- Are the rules the same for bicyclists? What other rules should be considered when on a bike, for example, walking bikes across a crosswalk?
- 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 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 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 (north, south, east and west) on the map; 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 unit 2 — pedestrian safety. 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 — 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 — 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 ect
     - ❑ 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 _____

Activity sheet — Safe route to school checklist, continued

4. Was your bicycle ride pleasant?
   - ❑ 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 of the 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 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.

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 2018?
- 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

Names _____ 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? What have I learned about taking action?

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

Self-reflection

Review 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 and 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 object, it is their turn to share thoughts, without interruption, and others have the responsibility to listen
- The object is then passed to the next person in a clockwise direction
- If someone does not want to speak, they pass the 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 studens 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

Ask the students to write a reflective 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, or says "I have only had three drinks")?

Journal

Revisit the 'endeavour to be a role model' journal started at the beginning of the unit. Have students reflect on situations where they were a good role model and situations where they volunteered in the community. Have them review and update their personal pledge.

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 injures 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:

1. Lack of skills or knowledge
2. Unsafe behaviour
3. 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

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.

Collaborate, research, explore, design and present

In groups, 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. What could they do personally?

Ideas:

- Plan a bike to school day along a best route that the students have helped to plan
- Share presentations in a school assembly or at a parent night

Have the teams come up with a strategy and create a slogan for it, and a persuasive presentation to the ty (class) with their recommendations. They can write, paint, draw, film or design advertisements campaigning 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 PSAs. 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 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

Supporting resources for parents and caregivers

- Handouts to take home:
  - *Children and bicycles: not a toy, but a first vehicle...* handout on page 191
  - *Scooters, skates, and boards* handout on page 193
  - BikeSense manual (online resource available for B.C. cyclists from www.bikesense.bc.ca
- Information regarding a Bike Smarts program offered by the local recreational centre
  - Bike smarts guide to teaching bike safety. The six bike smarts sessions include:
    - Session 1 — Road rules
    - Session 2 — Bikes and helmets
    - Session 3 — High-tech handling
    - Session 4 — Smart signals and road hazards
    - Session 5 — Intersections and defensive riding
    - Session 6 — Streets and roads

Feedback and suggestions?

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

Children and bicycles: not a toy, but a first vehicle…

Even if a child can balance on the bike and ride in a straight line, it may be too soon for him or her to go on a busy road. Generally, children under nine or 10 lack the decision-making skills to be safe cyclists and should not ride on busy roads without an accompanying adult. You can prepare children to be safe cyclists by helping them practise riding skills and teaching them about safety equipment and the rules of the road. The following information can help. (see also www.bikesense.bc.ca)

A bicycle must be the right size

- A child should be able to straddle the bike with both feet flat on the ground.
- The seat should be at hip height when the child stands beside the bike.
- Beginners should be able to put both feet on the ground while sitting on the seat.
- While a child is seated and has both feet on the pedals, the low pedal leg should be bent slightly at the knee.

Bicycle safety equipment

- In B.C., all cyclists are required by law to wear an approved helmet. Helmets should meet Snell, ANSI, or CSA standards. Bicycle helmets differ from skateboard helmets. If falling, a skater will tend to fall backwards and a cyclist will tend to fall forward, which is why skaters' helmets are designed to provide more protection for the back of the head.
- Helmet must fit squarely and snug, on top of the head not slanting forward or backward.
- A visible cyclist is a safer cyclist. Light or reflective clothing makes riders easier to see.
- If a child's bike has no chain guard, tuck pant leg into socks or use a pant leg clip.
- A child's bike should have: a horn or bell, rear red light or reflector, and a white front light (for riding at twilight, at night, and in poor weather conditions).

Learning to ride

Beginners

- The safest place to learn to balance and steer a bike is away from the road.
- Before learning to go on the road, a child should be able to ride in a straight line, ride at different speeds, turn, stop, make a shoulder check (i.e., look back over their shoulder while continuing to ride in a straight line), signal while riding, and be able to make emergency stops.
- Supervised practice is the safest way to learn.

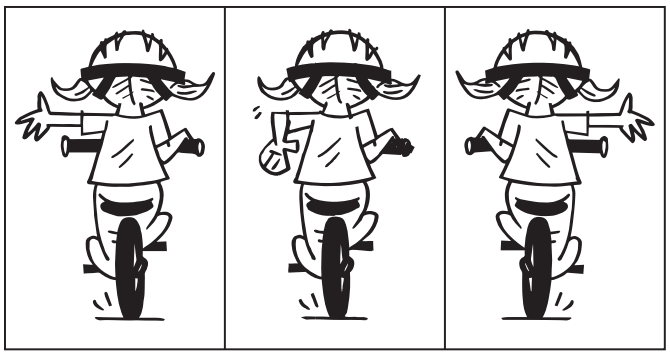
Cycling on the road

- Stop and look before cycling out of a driveway or lane. The majority of children's bicycle crashes are caused by the child riding out onto a road without looking.
- Ride single file.
- Keep to the right as much as is safe and practicable.
- Never carry passengers on a bike.
- Look behind for traffic before signalling.
- Make correct turning and stopping signals (left turn, right turn, slowing/stop).
- Obey rules of the road.
- Shoulder check at regular intervals.
- Keep both hands on the handlebars unless signalling.
- Obey all traffic signs and signals.
- Yield the right-of-way to pedestrians.
- When passing another cyclist, look behind for approaching traffic and use a bell, horn, or voice to indicate you are about to pass.

To shoulder check

1. Keep both hands on the handlebars and scan backwards over the left shoulder for traffic.
2. If the way is clear, signal and proceed with the turn, still shoulder checking.
3. If traffic will obstruct the turn, wait until the way is clear, then check again and if still clear, proceed.

Teaching children cycling signals is important. It's essential to also teach children how to shoulder check for traffic before they signal a turn. Many cyclists mistakenly think that the signal is like a magic wand and that drivers will see the signal and automatically stay out of the way.



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

Scooters, skates, and boards

With so many different styles of recreational travel—scooters, skateboards, and in-line skates—it's important to play safe while enjoying these fun activities. As kids across the country rediscover these fun and speedy means of transportation, injuries are on the rise.

Did you know?

In-line skaters can travel fast. Falling at a speed of 20 km/h can result in death.

Over half of in-line skaters, scooters, and skateboarders are injured because they lose control and fall.

Children age eight and under should not use scooters without close adult supervision.

Get trained

- Check with a recreation facility in your community to find out where you can learn to skate or scooter. If no courses are available, ask a good skater for some basic tips.
- Learn how to control your speed and turns, and how to brake and stop quickly. Be prepared to fall. It happens to even the most experienced riders!
- Before using your scooter, in-line skates or skateboard, check thoroughly for hazards such as:
  - loose, broken, or cracked parts
  - sharp edges on metal boards
  - slippery top surface
  - wheels with nicks and cracks. Defects should be corrected by a qualified repairperson.

Look first

- Watch out for vehicles, cyclists and rough or slippery surfaces.
- ALWAYS yield to pedestrians.
- Skate on the right: pass pedestrians, cyclists and other skaters on their left.
- Alert people as you approach: call out "passing on your left", "passing on your right", etc.
- Know the dangers of the driveway. Always stop before crossing a driveway obscured by bushes or a fence, scan by looking left, ahead, right and then left again. The driveway is a dangerous intersection that can pose a safety risk.

Where to roll?

- Use your scooter, in-line skates or skateboard only where it's safe and legal in your community: designated roadways in parks, bicycle paths, etc.
- Do not skate or scooter after dark.
- Avoid water, oil, sand, or gravel surfaces.
- Keep your equipment in good working order.
- Never hitch a ride from a vehicle, bus, truck, or bicycle.
- Limit use of your scooter or skateboard to one person at a time.
- Use caution when going downhill. If a steep hill is encountered, walk, don't ride to the bottom.

What to wear?

Always wear the right gear to avoid injuries. Be sure protective gear fits properly and does not interfere with your movement, vision or hearing.

- Helmets can reduce the risk of head injury by 85 per cent. Because skaters tend to fall backwards and cyclists tend to fall forward, skaters' helmets are designed to provide more protection for the back of the head. It's recommended you wear helmets specially designed for in-line skating. Check the label on your helmet, make sure it is ASTM, SNELL or ANSI rated.
- Wrist guards distribute the forces of impact during a slide, reducing injury. Try to fall forward, and keep your hands in front of you.
- Knee and elbow pads distribute the impact of the fall much like wrist guards and allow you to slide safely. If you start to fall, drop to your knees and hold your hands out in front.

Be smart

Learn the basics of your skateboard, in-line skates or scooter.

- Always wear protective gear.
- Watch for hazards.