4-H Body Works Series
Discovering
Bicycling

Learning is 3D!

To help you get the most out of your learning, each project meeting has the following parts:

Dream it! Plan for success
Do it! Hands on learning
Dig it! What did you learn?
What Skills Will You Learn?

To complete this project, members must:

- Spend a minimum of 15 - 20 hours completing the project work.
- Complete the listed activities, OR a similar activity that focuses on the same skills, as you and your members may plan other activities.
- Plan and complete the Showcase Challenge
- Complete the Portfolio Page.
- Participate in your club’s Achievement (see the inside back cover for more information about 4-H Achievement).

This project is being offered in Manitoba, with permission from Saskatchewan 4-H Council.

Achievement (project completion) requirements for 4-H Manitoba apply to this project and are described above. The amount of time spent on project work may exceed the minimum 15 hours, depending on the project that you have chosen and the activities within the project.

This project was selected to be offered by 4-H Manitoba because it provides members with the opportunity to meet Manitoba 4-H project learning objectives. These objectives include technical skills, communication, meeting management, leadership skills, as well as community involvement and real world experiences.

Showcase Challenge and My Portfolio Page

At the end of the member’s section are the “Showcase Challenge” and “My Portfolio Page”.

The “Showcase Challenge” page gets members to think about their accomplishments and explain or demonstrate how they were successful. There is information to help them decide how they will best “Showcase” their learning to family and friends.

Record Keeping is an important part of every 4-H project. “My Portfolio Page” is used to keep track of members’ 4-H experiences. As each member learns skills this is recorded on the portfolio page. When the Portfolio Page has been completed and confirmed by the leader, then it becomes a record of the member’s completion of the project and participation in other 4-H activities beyond the project.
4-H leader assessment of members will occur throughout the project as you observe the progress and learning of each member. Record what you see and hear. Your feedback should be positive and specific (not just “well done”). Share feedback with members often so they can act on your suggestions. How you choose to observe and record is up to you. Remember that members may improve throughout the project year and that records should be updated to reflect when they showed their best learning.

Projects promote technical, communication, meeting management, and leadership skills, as well as community involvement and real-world experiences. In addition to the specific skills members are to learn in each activity, these learning goals for members are important: Following instructions - Working with others - Using supplies safely - Using the key words - Improving with Practice - Respecting timelines.

4-H LEADER TIPS FOR SUCCESS!

- Page 2 in each guide summarizes what the member must do to complete the project.

- Depending on time available, groups size and member abilities, you may wish to break the activities in each section into more than one project meeting.

- The internet has lots of interesting websites and educational activities. We do not endorse any website or any products they may sell. Information/products will be used at your own discretion.

- Safety is a number one priority. Care has been taken to create safe, age appropriate activities throughout this manual. As leaders, it is important for you to emphasize safety rules and adapt activities to safely match your members’ abilities. Ensure members have a good understanding of safe practices when using tools, that they use the right safety equipment when necessary, and that good supervision is provided. A quality experience needs to be a safe experience.

- The multiple intelligences theory teaches us that people learn in at least 8 different ways. All individuals will be stronger in some ways of “intelligences” and weaker in others. It follows that the more ways we teach, the more members we will reach. Throughout this project, you will find a mix of teaching and learning methods. Teaching projects using a broad blend will help increase the learning potential of all members.

- Projects are designed to teach many skills, but the 4-H member is always more important that the subject matter. Stress cooperation in the activities to develop teamwork and cooperation skills. These are valuable life skills. Ensure the work is completed in a manner that members feel good about themselves and their efforts. This can be done by assigning tasks based on member’s individual abilities. Modelling and expecting supportive behaviour (i.e. no “put-downs”) in the group also contributes to a positive experience.
4-H LEADER TIPS FOR SUCCESS!

- There will be opportunity for experimentation and applying skills that members have learned throughout this project. Experimenting can be frustrating, but learning through trial and error is an important life skill. Explain to members that is is alright to either go on to the next activity or do the activity again if they need the practice. Help the members work through their challenges until they are satisfied with the final results. Creating inventive 4-H members will be very rewarding.

- Celebrating success is an important but sometimes overlooked part of our lives. We encourage you to use the final section to empower the members by celebrating all they have learned in a fun manner. Anything that you do to add to the spirit of fun and the sense of accomplishment of each member will likely be remembered as the highlight of their 4-H year.

Have fun and thanks for your belief in young people!

Showcase Challenge

Have members use their Member Manual to help them in organizing what they have learned. The form of the showcase can vary according to the wishes of the members and leaders, and the member’s ability. Information could be presented in many forms, some of which are: posters, pamphlets, written reports, speeches, computer presentations displays, etc. Suggestions are listed on the Showcase Challenge page at the back of the Member Manual. The best results are almost always obtained when members are allowed to present their information in the style of their choice.

Portfolio Page

Once members have completed all the activities they will have a lot of information recorded in their manuals. These are products of their learning. As a final exercise in the project, members and leaders will pull together all this learning in completing the Portfolio Page in the Member Manual. Members and leaders must indicate how they know the member was successful at a particular skill. Leaders will find evidence if they think about what they have observed members doing, what discussions they have had with members, and what the members have produced. If leaders think that members need to go back and improve on any skill, this chart helps them clarify what needs to be done.
Now that you have finished this project, it is time to think about how you will share your experiences and knowledge with others. You may put your new skills to work by helping at a community event or at your club Achievement or teaching others about your topic. The goal of the Showcase Challenge is to help highlight your new skills and help you understand how you can use them. It can be an opportunity to receive feedback from others on your project. So go back through your manual and find some highlights of your learning (what you are proud of) and think about how you will “showcase” it.

**Dream It!**

*Here are some Showcase Challenge Suggestions:*

- Demonstrate something you made or learned about
- Act out a play
- Teach a class
- Use your new skills to help with the Club Achievement plans
- Make a poster or display
- Make a video or slideshow
- Organize a special event
- Or come up with your own idea. It is up to you and your leader!

**My Showcase Challenge Plan**

My showcase idea: __________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________

What materials and resources do I need? _________________________________________
________________________________________________________________________

Who do I need to help me? ___________________________________________________
________________________________________________________________________
________________________________________________________________________

When do I need to have things done by? _________________________________________
________________________________________________________________________
**Do It!**
Insert or attach your finished product or a photo of you sharing your skills in your Showcase Challenge.

**Dig It!**
Now that you have showcased your project skills;
- How did your Showcase Challenge go?

- What would you do differently next time?

- How will you use your new skills in the future? (*in different situations?*)
# My 4-H Portfolio Page

**Name:**_________________  **Date:**_________________  **Year in 4-H:**____

**Club:**_______________  **Hours Spent on 4-H:**____  **(Project and Other 4-H Activities)**

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## Project Name: ___________________  **Skills Chart**

To be completed by the leader and the member based on observations and conversations throughout the project. **This generic 4-H Portfolio Page is for use with all projects without a project specific 4-H Portfolio Page printed in the manual.**

<table>
<thead>
<tr>
<th>Meeting Date</th>
<th>Activities we did...</th>
<th>Skills I learned...</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>During your project you did activities to help you learn new skills. Identify these activities below.</td>
<td>Identify the skills learned in the activities completed in your project.</td>
</tr>
</tbody>
</table>

---

**Additional Comments/Activities:**

---

## Leader Point of Praise!

I am most impressed by...

I acknowledge that the member has completed the 4-H project requirements.

**Leader's Signature:** ____________________
Above and Beyond!
In addition to project skills, 4-H also increases skills in meeting management, communications, leadership, community involvement through participation in club, area, or provincial 4-H events or activities. List below any activities you participated in this year in 4-H.
(Some examples include Executive Positions Held, Workshops, Communication, Community Service, Rally, Bonspiels, Conferences, Judging, Camps, Trips, Awards, Representation to Area or Provincial Councils, etc)

_____________________________________       _______________________________________
_____________________________________       _______________________________________
_____________________________________       _______________________________________
_____________________________________       _______________________________________
_____________________________________       _______________________________________
_____________________________________       _______________________________________  

**Feel Free to add additional pages that include awards, certificates, new clippings, photos or other items that describe your 4-H involvement.

Member Point of Pride!

What I learned…

What I need to improve on…

What I want others to notice…

Member’s Signature: _______________________________

Point of Praise! Another’s perspective on your achievements in 4-H.
(community professionals, MAFRI staff, 4-H club head leaders, 4-H Ambassadors, friends of 4-H)

I am most impressed by…

I believe that you have learned…

In the future I encourage you to…

Signature: _______________________________
4-H Achievement

4-H Achievement is... a 4-H club celebration when members have completed their projects. Achievements are planned by the club to give recognition to members and leaders for their accomplishments in their 4-H projects and club activities.

A 4-H Achievement can take many different formats: from choosing a theme, to member project displays, to members using their new skills for the event (entertainment, food, decorating, photographer, etc.), to members presenting their project to the whole group, the options are endless and open to the creativity of the members and leaders in each club!

Clubs may also plan their Achievement to promote 4-H to the community or to recognize sponsors and others who have helped the club.

Members and leaders - be sure to check your project books for the project completion requirements, so you will be ready for your club’s Achievement celebration!

If you have any questions, comments or suggestions for this or other 4-H projects contact:

Manitoba 4-H Projects
Manitoba Agriculture Food and Rural Development
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Email: 4h@gov.mb.ca
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This manual is for educational use only and is not intended as professional advice.

For more information about 4-H and the many 4-H opportunities available please visit

http://www.gov.mb.ca/agriculture/4-h/
What is 4-H?

4-H is an international youth organization involving more than 7 million members in 80 countries around the world.

In Canada, 4-H began in 1913 in Roland, Manitoba as a community-based organization dedicated to growth and development of rural youth. Today’s 4-H program reaches both farm and non-farm youth across Canada. The motto of “Learn to Do by Doing” is embodied in the program, as 4-H focuses on skill development as well as personal development of life skills such as communications, leadership and citizenship.

4-H Motto

“Learn To Do by Doing”

4-H Pledge

I pledge,
My HEAD to clearer thinking,
My HEART to greater loyalty,
My HANDS to larger service,
My HEALTH to better living,
For my club, my community, and my country.

4-H Quality Equation Principles

Quality People

• Promote responsibility, respect, trust, honesty, fairness, sportsmanship, citizenship, teamwork and caring.

Quality Experiences

• Provide members with personal development and skill development experiences.

Quality Projects

• Promote and value quality effort.
• Promote high quality, safe food production within industry standards.

Manitoba 4-H project material is developed by
Manitoba Agriculture, Food and Rural Development (MAFRD)
4-H MOTTO
Learn to do by doing.

4-H PLEDGE
I pledge my HEAD to clearer thinking,
My HEART to greater loyalty,
My HANDS to larger service,
My HEALTH to better living,
For my club, my community and my country.

4-H GRACE
(Tune of Auld Lang Syne)
We thank thee Lord, for blessings great
On this our own fair land.
Teach us to serve thee joyfully,
With head, heart, health and hand.

This project was developed through funds provided by the Canadian Agricultural Adaptation Program (CAAP). No portion of this manual may be reproduced without written permission from the Saskatchewan 4-H Council, phone 306-933-7727, email: info@4-h.sk.ca. Developed February 2013.

Writer: Leanne Schinkel
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Start a Bicycling Journal

Time: About 30 minutes to an hour.

What you will learn:
Journals are a great tool, and journaling a great habit to get into. When you start on your bicycling journey, you’re going to be learning a lot very quickly, and keeping a bicycling journal will help you remember it all. With a journal, you can write down your research on different bikes, bike parts, bike routes and much more. Your journal will become a great reference for you to go back and explore down the road when you need a refresher on something you may have forgotten about. In your bicycling journal, you will organize your bicycling adventures according to date, what routes you took, who you were with and what happened on your ride.

What you need:
You will need a small or medium sized notebook and a pencil or pen.

Instructions:
Start by either finding or buying a small or medium-sized notebook. You don’t want a big one, something small will do, that can fit in your pocket or a backpack with your extra food or safety gear. Try to find one that’s unlined, so you’ll be able to easily illustrate your entries if you want. You can decorate your bicycling journal however you’d like. You can paint or colour the cover, or put a big title on it like, “Jamie’s Bicycling Journal” so everyone knows who it belongs to. Be creative! This is your space to chronicle your bicycling journey, and you might have it for a long time!

There are many things you can write in your journal. Start by separating your journal into a few different sections like the ones below:

**Research** – This section is for the information you find about different bikes or helmets that you might be considering, or bike accessories you think you would like to buy.

**Routes** – This section is for different routes you’ve tried and information about them, like traffic, road rules to follow and road conditions.

**Goals** – Record your cycling goals here. Many athletes keep journals that outline their training goals; this helps them stay motivated. Maybe your goal is to complete a 15km bike trip, or you want to take a weekend cycling trip with your family. Perhaps you want to cycle for weight loss and hope to lose 5lbs. Record your goals and check back often to review your progress.

**Community** – This section is for keeping track of what your community has done to help cyclists and encourage cycling. If your community has a long way to go, write down ideas for how it can become more bicycle friendly.

If you can think of more sections you’d like to include, go for it! This is your cycling journal to write in as you please. Make sure you date all of your entries so you can look back and remember special occasions and track your progress. Keep in mind that your journal can go beyond words too; illustrate your thoughts and ideas for a fun new approach to journaling! Share your ideas and entries with your club.
Discussion:

- Why is journaling a great way to keep track of your cycling experiences?
- What about the journal you chose will make it easy to use?
- What kinds of entries will you make in your journal?
- What will help you remember to write in your journal often?
- How might you use your journal in the future?
Getting to Know Your Bike

Time: Under an hour.

What you will learn:
In this activity, you will test your knowledge of the major parts of the bicycle and what they do.

What you need:
All you need is the diagram below and a pen or pencil.

Instructions:
Using all the knowledge you’ve learned so far about bikes and bike parts, fill out the diagram below with as many parts as you can remember. If you need to, refer to the section on bicycle anatomy in Unit 1 of your reference book, but first try to get as many as you can on your own. If your club decides to, you can do this as a group activity. Print out the diagram on larger paper and post it up on the wall. Each member gets a marker and everyone takes turns labelling different parts. It will become pretty fun when you’re getting close to the end. Make sure no one tries to make up any parts! When you’ve written out as many parts as you can remember, write down what job each one performs.
Discussion:

- Did you manage to remember a lot of parts without looking them up?
- What parts did you forget, if any? Why? What can you do to help yourself remember them easier?
- How does knowing the parts of a bike help you understand the information in your owner’s manual? How does it help you repair and clean your bike?
- Have you ever talked with someone about your bike and had to mention different parts? What were they? Did you remember them easily?
- Does your bike lack parts that other club members have or vice versa? Why? What makes your bike different?
The Egghead Experiment

Time: A few hours.

What you will learn:
In this fun (and a bit messy) activity, you’ll get a visual example of how important a helmet is to protect your head.

What you need:
You will need two fresh eggs, a plastic egg (if you have one) to practice fitting a helmet on, paper towels, garbage bags and things to make a helmet from like paper, Styrofoam, packing peanuts, bubble wrap, cardboard, plastic, string, tissues and tape. Oh, and also a parent or guardian to help out!

Instructions:
If your parent or guardian will allow it, drop a fresh egg onto the floor from shoulder height. I’ll bet it broke open on the floor and got pretty messy, right? Imagine that egg was your head! I’ll bet you’d like to keep your “egg head” from breaking like the raw egg, right? To see how much protection helmets really give us, you’re going to construct a little helmet to protect your second egg. Before starting, be sure to clean up that first broken egg. Be careful to wash your hands thoroughly afterward; eggs can carry salmonella, which definitely isn’t any fun!

Before starting, grab your bike helmet and look at it carefully. How does it keep your head safe? Think about how you can use the materials at hand to make an egg helmet that will keep your raw egg from breaking. If you have one, you can use a plastic egg for practice as you design your egg helmet. Get creative with your materials; there’s no right or wrong way to make a helmet for an egg! The goal is to make it padded enough to protect your egg from a long fall. When you think you’ve added enough protection, strap in your egg and drop it from shoulder height. Did it work? If yes, congratulations! Your egg is safe. If not, try again. Good luck! Share the story of your progress with your club.

Discussion:
- How many tries did it take to design a successful egg helmet?
- Did you go through a lot of materials?
- What did you learn from this process?
- Do you think this activity is a good example of how important helmets are?
- Would you suggest this activity to someone who doesn’t think helmets are important?
- What were the experiences of your fellow club members? Did anyone get it on their first try?
Bicycle Bingo

Time: A couple of hours.

What you will learn:
This fun activity will make it easier to memorize all the new terms you’re learning in this project.

What you will need:
You will need construction or poster paper, rulers, pencils or markers and buttons or beans.

Instructions:
Are you starting to feel a little overwhelmed by all these new bicycle-related terms? It’s understandable; there’s a lot to remember! In this activity, we use the old-fashioned game of bingo to help you remember what you’ve learned so far. Only in this game, it’s not “BINGO”, it’s “BIKES”!

1. As a club, hand out paper, pencils, and rulers so everyone can make their own game cards. Each member should draw a grid like the sample card shown here and put each letter of the word “BIKES” at the top of each column.

2. As a group, think of five headings that relate to bicycles. You could consider parts, tools, safety equipment, bike hazards, etc. Write those headings underneath the word “BIKES”. Now, each player should fill in the boxes underneath the categories with terms that fit into that category. Everyone gets to select one of the boxes on their game card as a “free” space. Put an “X” in your chosen box as shown in the sample card above.

3. When everyone has completed a game card, scramble them all together and pass them out randomly along with a supply of buttons or coins to cover the terms that are called.

4. To begin the game, pick a person to start by selecting a word or phrase from any column and saying something about it. All players who have the same word or phrase will put a token over that square on their card. Continue around the table, circle or group until one player calls out “BIKES!” which means they have five words or phrases in a row covered vertically, horizontally or diagonally. But wait! In order to be declared the winner, this person must give the definition of every covered term or phrase on their game card.

5. Continue to play the game as many times as you like.
Discussion:

- How did you play the game?
- Was it a fun way to learn bicycle-related terms? Was it easier to remember the terms after you had played the game for awhile? Why do you think that is?
- How did you decide what headings to use in the game?
- What terms did you choose for your categories?
- What other topics could you use the bingo format to learn about?
Bike Shop Scavenger Hunt

**Time:** A few of hours over a couple of days.

**What you will learn:**
In this super fun activity, you will make contact with your local bike shop and learn as much as you can about bicycles and cycling.

**What you need:**
You will need a willing bike shop operator, a bike shop, the attached handout with questions, your cycling journal and pencils or pens.

**Instructions:**
As a group, contact a local bike shop to find out if someone would be willing to meet with your club. Find out a time that would be good to meet with them when the shop won’t be too busy and make a plan to be there at that time. Prior to your trip, make copies of the attached Bike Shop Scavenger Hunt Form and hand them out to the club members. Read the questions as a group so that everyone is familiar with them. Divide the “Shop Operator” questions up amongst each club member so that everyone gets to ask a question and be involved.

When you arrive at the shop, make introductions, provide a brief overview of the activity so the shop personnel know what to expect and divide the group into teams of two or three individuals. Allow 10 to 20 minutes to find the items on the handout and answer the questions. Ready? Set! Go! After the teams have completed the scavenger hunt process, allow time to ask the shop operator questions. If time allows, go to each location of the store to discuss each topic with examples.

**Discussion:**
- What was the most interesting part of the Bike Shop Scavenger Hunt?
- What was new to you? What surprised you?
- Did you find anything you might like to purchase for yourself?
- How did you work as a team to complete the scavenger hunt?
- What kind of bike did you find that you would like for the kind of riding you do?
- How could you use this bike shop in the future?
Bike Shop Scavenger Hunt

#1 – Frames
List three types of frames:

________________________________________________________________________
________________________________________________________________________
________________________________________________________________________

Q. How do the frames differ?
Q. How are the frames designed for a particular type of riding?
Q. Shop Operator: What type of frame material do you prefer for different types of cycling and why?

#2 – Tire Treads
List three types of tires:

________________________________________________________________________
________________________________________________________________________
________________________________________________________________________

Q. How are the treads different on each type of tire?
Q. What tires are designed for what type of terrain/riding?
Q. Why aren’t the front and rear tires always alike?
Q. Shop Operator: What makes a good tire?

#3 – Bikes
List three makes of bikes:

________________________________________________________________________
________________________________________________________________________
________________________________________________________________________

Q. Which company makes the most expensive bikes?
Q. What is the most common make of bike in the shop?
Q. Shop Operator: What is the most popular bike that your shop sells?
#4 – Clothing
List three pieces of clothing that are meant for cyclists:

_____________________________________________________________________________

_____________________________________________________________________________

Q. How do cycling clothes differ from everyday clothing?
Q. What features have been included specifically for cyclists?
Q. Shop Operator: How do avid cyclists deal with seasonal weather changes?

#5 – Pedals
List two different kinds of pedals:

_____________________________________________________________________________

_____________________________________________________________________________

Q. How do pedals differ on different types of bikes?
Q. What is the advantage of having your foot held securely to the pedal?
Q. Shop Operator: Why are “clipless” pedals called clipless when they have clips?

#6 – Helmets
List three categories of helmets.

_____________________________________________________________________________

_____________________________________________________________________________

Q. What are the differences between inexpensive and expensive helmets?
Q. How do (or don’t) the added features add to the safety of helmets?
Q. How does a helmet protect the head?
Q. How safe is a cracked helmet?
Q. Shop Operator: How do you know if a helmet is on correctly?

#7 – Safety Equipment
List three pieces of safety equipment other than helmets:

_____________________________________________________________________________

_____________________________________________________________________________

Q. What parts of the body need safety equipment to protect them?
Q. What safety equipment did you find on the bikes?
Q. **Shop Operator**: What safety equipment do you recommend for the beginning rider?

**#8 – Food for the Ride**

List one food to be consumed for each of the following times – before a ride, during a ride and after a ride.

Before: ___________________________________________________________

During: ___________________________________________________________

After: ___________________________________________________________

**Q.** How do foods that are meant to be eaten at different times differ?

**Q.** How are these foods designed to be easily eaten by the rider?

**Q.** **Shop Operator**: How popular are specialty foods for cyclists?

**#9 – Air Pressure**

List three recommended tire pressures:

______________________________________________________________

______________________________________________________________

______________________________________________________________

**Q.** What bikes have the highest recommended pressure?

**Q.** Where is the recommended air pressure for a tire shown?

**Q.** **Shop Operator**: What are the most popular tires?

**#10 – Wheels**

List four wheels with different types of spoke patterns:

______________________________________________________________

______________________________________________________________

______________________________________________________________

**Q.** How do the patterns of spokes on different wheels differ?

**Q.** What is the difference between how a front wheel is spoked and how the back wheel is spoked?

**Q.** **Shop Operator**: What tools do you use to build a wheel?
Stop! Look! Listen! Indoor Practice

Time: One to two hours.

What you will learn:
In this activity, along with your fellow club members or family, you will learn what to look and listen for every time you cross the street or an intersection. You’ll practice how to use your eyes, your ears and then your feet!

What you need:
You will need pencils, markers, paper, toy cars and bicycles, real bicycles and safety gear.

Instructions:
As a club, with your family or a group of friends, get creative by drawing several streets and intersections on pieces of paper. Connect them together to make a big section of road. Be sure to include signage like stop signs and traffic lights, railroad crossings and intersections. When your streets are ready, use toy cars, trucks and bicycles to make traffic. Have different people “drive” different vehicles (including bicycles) through the streets, always explaining what they are doing when they turn, change directions or come up to a street sign. Everyone should be talking about what they are stopping for, what they are looking for and what they are listening for. The rest of the club should be paying attention and asking questions regularly. When the group is ready, take the activity outside to try on real bicycles. Find a safe place like a vacant parking lot and practice the same techniques of stopping, looking, and listening.

Discussion:
• What happened on the streets and intersections?
• What did people do to prevent accidents?
• What do you need to know about scanning, turning, signalling and listening before you go through intersections?
• How will scanning be different when you’re on your bike?
• In what other situations do you scan to avoid running into someone?
The Slow Speed Challenge

Time: About an hour.

What you will learn:
In this fun activity, you’ll learn a little more about how gravity works and how speed actually helps you stay upright on your bike.

What you will need:
All you need is your bike and safety gear and a friend (or parent or guardian) or two.

Instructions:
This fun “race” isn’t what you might expect – the winner is actually the last person to cross the finish line! It’s all about balance and defying gravity.

1. In a safe, traffic-free area like a vacant parking lot, designate a start line and a finish line. Using chalk, draw “lanes” between the start and finish lines for each of the riders.
2. Have all the participants line up at the start line. Have a parent or guardian yell out “go!” and the race is on!
3. This is the tough part: each racer has to pedal as slowly as possible without taking either foot off the pedals and touching the ground. Make sure each rider keeps as straight a line as possible, always staying within their lane.
4. The last rider to cross the finish line wins! Try it again and again; race as many times as you like.

Discussion:
- Why do you think it’s so hard to stay on your bike while hardly moving?
- What did you learn about gravity in this activity?
- Did the same person win every time? Why?
- How does going faster keep you upright on your bicycle?
Sign Language Match Game

Time: A couple of hours.

What you will learn:
In this fun activity, you’ll learn to recognize and react properly to the traffic signs you see when you’re out on the road.

What you will need:
You will need scissors (to cut out the game below) and your wits!

Instructions:
All you need to do for this activity is cut out the cards below. Each should have either a sign or an action. Once you’ve cut them out, separate the actions from the signs. Scramble each up into a pile. Now place them face down on a table with the signs on one side and the actions on the other. This game works like any other match game. Flip up one card from the sign side. Now flip one card up from the action side. If they match (if the action corresponds to the sign), put them together off to the side, you’ve “won” that sign. If they don’t match, flip them back over again and flip over another sign. Keep going until you’ve won all the cards. Keep playing until you’ve memorized the correct action for each sign. If you want, ask a friend, sibling or parent or guardian to play with you!

Discussion:
- Did you know a lot of these signs before taking this bicycling project? How did you learn them?
- Was it easy to memorize what action is required for each sign? Why?
- Do the colours of the signs give clues to what is expected?
- Where might you see each of these signs out in the community or near your school?
- Are there other signs you might see biking that aren’t included here? What are they? Where might you see them?
Continue through the intersection if it’s clear of traffic.

Stop! Do not enter the intersection. The light is about to change to red.

Stop! Never enter an intersection through one of these.
All traffic on this road must go in the same direction.

Come to a complete stop.

Go only in this direction.
Look both ways and listen for a train. If you hear or see a train, wait at a safe distance for the train to pass. If there is no train, go carefully across the tracks.

Slow down and watch for children crossing the street.

Wait for the other vehicle to go first. Only go when it’s all clear.
Do not take your bicycle past this point.

Keep inside this lane at all times unless turning.
Hand Signal Quiz-A-Thon

**Time:** One to two hours.

**What you will learn:**
In this fun activity, you will practice memorizing hand signals both on the ground and on your bike.

**What you will need:**
All you need is your club, a group of friends or your parent or guardian and your bike and safety equipment.

**Instructions:**
Have you ever played the game “Red light/Green light”? This activity is a lot like that, only instead of red and green lights, we have hand signals. Just get together with your club, a group of friends or a parent or guardian who want to practice using hand signals.

1. Decide who will be the first “caller” (the person who will be calling out the directions). Get everyone to stand in a line with their backs to the caller.

2. When everyone is ready, the caller will call out one of the three signals, “Left!” , “Right!” or “Stop!” and the group must make the hand signals as quickly as they can. If you’re playing in a group, the last person to get the signal is “out” until the next round. If you want, you can make this more active by having the group walk or jog in a circle while they wait for the signals to be called out, and then have them perform the signal that’s called. It can get pretty chaotic but pretty fun! Make sure the caller knows they have to be as loud as possible.

3. Keep playing until there’s only one person left. This person then becomes the caller.

4. When everyone has had a chance to be the caller, it’s time to try out hand signals on your bikes! In a safe, traffic-free place like a vacant parking lot, try the game with the players on bikes. Learning how to balance while signaling is a real skill that requires a lot of practice.

This activity is really about having fun while practicing hand signals. If you decide not to play with the “out” option, that’s fine. As long as everyone has fun and learns how to signal correctly and confidently, you’ve succeeded!
**Discussion:**

- How long did it take you to master the art of hand signalling on the ground?
- Was it difficult to remember which signal was for which action?
- How long did it take you to master hand signals on your bike?
- Did you have a hard time balancing while signalling? Or did practicing on the ground first help?
- How would you teach a beginner cyclist how to hand signal? Would you use the same activity?
Become a Scanning Expert

Time: One to two hours.

What you will learn:
In this activity, you will practice looking all around you and staying alert while balancing on your bike. You’ll become a scanning expert!

What you will need:
All you need is a straight line on the road, sidewalk, or driveway (or draw one with chalk!), your bicycle and safety equipment, a helper and a sign (optional).

Instructions:
Use the steps below to practice scanning. Once you can look behind yourself while keeping your bike moving straight, you’ve got it!

1. First, you want to test your balance when not on your bike. Make a straight line on the ground or use the edge of the sidewalk. Walk on the line while moving your head side to side, trying to keep on the line at all times. Keep at it until you can do it without straying from the line. When you have that mastered, try it while looking over each shoulder. Now lift one hand up at a time. Once you’ve mastered each of these actions while staying on the line, you’re ready to hop on your bike.

2. Get on your bike and sit on the seat. Get someone to hold the bike upright for you. Pretend there is a car behind you. Keep your hands on the handlebars and check for “traffic” over your left shoulder. Pretend you’ve made eye contact with the driver. Now bring your eyes back to centre. Try it again over your right shoulder. Try again lifting one hand at a time off of your handlebars. If you want, have a friend hold up a sign behind you and see if you can read the sign.

3. Finally, try out your scanning skills while actually riding your bike on the line. Perform the same steps you did in step 2. Practice until you can scan while keeping your bike on the line without swerving.

Helpful hint: Scanning is easier if you bend your elbows a little while you scan around.

Discussion:
- How long did it take you to master the art of scanning?
- Was it difficult to learn?
- Did this activity make you appreciate how important it is to be able to scan while cycling?
- How would you teach a beginner cyclist how to scan? Would you use the same activity?
- Watch experienced cyclists you see in your town. Do they also scan?
The Closest and Safest Route

**Time:** Less than an hour

**What you will learn:**
In this activity, you will learn how to calculate the closest and safety route. Keep in mind that just because a route is the shortest doesn’t mean it’s also the safest!

**What you will need:**
All you need is a pen or pencil and your brain!

**Instructions:**
Add the miles on each route, answer the questions and find out which is the shortest route and safest route to the ice cream shop.
Questions:
1. Alex and his parents are going to ride their bikes to get ice cream.
2. How far is Alex’s house from Kelly’s house if they go decide to take Green Street?
3. How far is Alex’s house from the ice cream shop if they take the Orange Road route?
4. How far is Kelly’s house from the ice cream shop down Green Street?
5. Which is the shortest route to the ice cream shop if Alex and his parents must stop to pick up Kelly first?
6. What if Orange Road is a high traffic route with a lot of traffic lights and vehicles? Does that change which route they should take?
7. If there were a bike path along the river, that led right to the bike path on Purple Avenue, do you think that would be the best route? Why? What if it were over three kms?

Discussion:
• Was it easy to figure out the closest route? Which one was it? Was it also the safest route?
• Would you be able to look at maps in your area to calculate the closest route?
• Would the maps help figuring out which is the safest route too?
• What other resources could you use to find out the closest and safest routes in your area?
Favourite Route Map

**Time:** Less than an hour.

**What you will learn:**
In this activity, you will learn how to map out your favourite route.

**What you will need:**
All you will need is a piece of paper and a pen or pencil.

**Instructions:**
Think about your favourite bike route. It could be to school or a friend’s house or even your local bike shop. It doesn’t have to be a long route; it could be a five minute ride or a 30 minute one. What do you like about it? Does it have a big hill that’s fun to ride down? Perhaps it goes through a nice park with lots of big trees. Maybe it goes by a house with a really cute puppy you like to say hi to. This is your chance to draw it out, show it to your club and explain why you like it so much!

Grab your piece of paper and pen or pencil and get started. Pretend you are drawing the map to give to someone to try themselves. Be sure to include a lot of detail; you don’t want anyone to get lost! Use arrows to show turns and directions, and be sure to include any traffic signs you see along the route. Get creative and use crayons or markers to colour the way. Use stars to point out the special features you like about the route, like that nice park or the cute puppy.

Bring your favourite route map to your next club meeting and be prepared to explain the route. Be as descriptive as possible.

**Discussion:**
- What made you choose your favourite route? What is it you like about it?
- Were you happy with your route map on the first try or did you have to make a few different versions?
- Do you think your route map is clear and easy to follow? Would another cyclist be able to ride the route without getting lost?
- Would you make more route maps for the other rides you like?
- What type of routes did your fellow club members draw maps for? Would you like to try some of them out?
Single Track Fun

Time: One to two hours.

What you will learn:
Mountain biking is a type of cycling that takes place in the woods on winding trails. When the trail narrows so only one bike can fit on it at a time, it’s called single track. These sections can be very technical and challenging to ride, requiring the rider to navigate many different hazards. Mastering these sections requires quick thinking, good bike control, and lots of practice! For this activity, you’re going to get that practice by creating your own single track course.

What you will need:
You will need your bicycle and safety equipment, paper, pens or pencils and equipment to set up a course.

Instructions:
As a group, brainstorm ideas for sections of your single track obstacle course. Think about including tight turns, logs and loose terrain. What would make a good single track? You could have a “weave through the cups” section, in which riders have to weave around disposable cups, or a “balance board” section where riders have to balance on different sized boards on the ground. Once you have some good ideas, start to lay out the course. Make sure not to make the course too tight or complicated, it will be difficult to navigate. Spread the course out to allow for riding in-between sections. Keep things simple with three to five sections, and progress from there. Be sure to make good use of the terrain you have! Have the course go up hills, around trees and on different surfaces. This will make your track more exciting, challenging and realistic!

When you’ve completed the first draft of the course, the rider’s should walk the course as a group, stopping at each section, so everyone understands each obstacle. Once everyone is ready, get riding! Riders should take turns doing laps around the course. Remember that this is not a race! The purpose is to better understand how to control a bike in off-road situations. As everyone gets better at the course, consider adding more difficulty by adding more obstacles or moving existing ones closer together.
Discussion:

- How did you do riding the course?
- What section of the course was the most challenging? Why?
- What sections were the easiest for you? Why?
- What riding techniques did you use throughout the course?
- How did repeating the different sections help you develop your own technique?
- Would you like to try this activity again? What would you do differently?
- How can the skills you learned in this activity help you with your everyday riding?
Design Your Own Bicycle

Time: A couple of hours.

What you will learn:
When you look at a bicycle like the penny-farthing, you wonder what the designer was thinking! Of course, the penny-farthing, while it looks a little silly, wasn’t necessarily a bad design. In this activity, you will use everything you’ve learned about bicycle types and bicycle parts to create your very own bicycle!

What you will need:
You will need some paper and a pen or pencil (or colourful markers) and your imagination!

Instructions:
Now that you know more about bicycle types and parts, it’s time for you to design your own bicycle. But wait! Before you add wings or a chocolate milk dispenser, keep in mind that you’re going to have to explain every choice you make and defend your ideas to your club. Each feature you add to your bicycle should have some purpose (even “to look cooler” is a purpose!). Get creative! What have you always wanted your bike to have? Draw out your bike with labels just like the Getting to Know Your Bike activity. Be creative with your ideas. Just because you have to justify them doesn’t mean you have to be conventional. Don’t forget to give your bicycle design a cool name! Prepare a presentation to share with your club.

Discussion:
- Did your bicycle have a lot of the same parts that a regular bicycle has? What did you add and why?
- What makes this imaginary bicycle better than your existing bike?
- What kind of bicycles did your fellow club members design? Were there any ideas that you liked?
- Have you ever thought about a career designing bicycles? How would you pursue that kind of career?
Organize a Group Ride

Time: A few days.

What you will learn:
Cycling in a group is a great way to have fun, get exercise, and share your enthusiasm for biking with like-minded people. Organizing a group ride is a fun way to learn how to plan a route, make safety considerations and ride together.

What you will need:
You’ll need a group of willing cyclists, your own bicycle and safety equipment, a map and pencil and paper.

Instructions:
When planning a group ride, there’s a lot to consider, not just where you’re going! You need to think about the best way to keep everyone safe and prepare for any problems before you head out. If this is the first group ride you’ve organized, keep it manageable. You don’t want to go too fast, too soon! Follow the checklists below to help you plan your group ride:

Planning Checklist:

- Decide who will be coming on the group ride. Make sure everyone has at least a beginner level of cycling ability and a strong understanding of bicycle safety. Each cyclist should be able to scan and signal while keeping their bicycle under control. Everyone should have a bicycle, a helmet, a water bottle and proper clothing for the trip.

- Decide where you’ll go. Consider every cyclist in your group when you’re thinking about where and how far you’d like to go. If you have a slower cyclist, you won’t want to go too far, no more than a few miles. Keep the route manageable for everyone. Think about difficulty of the terrain. Are there a lot of hills? Will there be gravel? Is the trail narrow? Think about safety. Is it a heavy traffic area? Will you be far from help if you need it? Be sure to choose a safe and interesting route, preferably with either a bike lane or a trail. Be sure to bypass heavily travelled streets.

- When selecting your route, you’ll also want to consider convenient stopping points for water, snacks and rest. Are you simply going for a ride or do you have a destination, like a park or museum? It might be fun to choose a different route for the way home, to keep things interesting for the group. Make sure to provide a map for every rider prior to the ride so everyone knows the route.

- Decide what supplies you’ll need for the trip. You will definitely need first aid kits and a couple of bike repair kits. Decide who will carry what.

- The internet can be a great resource when planning your ride. Check out tourism sites for your area to see if they have any maps or trails that are recommended for biking.

- Check the weather prior to your ride. Make sure you won’t have any flash floods, gale force winds or searing hot days to worry about. Be sure to tell everyone to bring appropriate clothing for your ride.
Pre-ride Checklist:

- Be sure to do your ABC check on every bike to ensure it’s in working order. EVERY rider should have a properly fitted helmet, no exceptions.
- Lead a quick review of traffic rules and hand signals. Everyone should be on the same page.
- Assign a “point” rider (someone who leads the group) and a “sweep” rider (someone who rides at the end of the group). Make it clear that no one is to ride in front of the point rider and no one follows the sweep rider. Both jobs are equally important!
- Make sure everyone knows the route.
- Plan for emergencies. Is there someone you can call if there is a problem? Who are they? Does everyone know who they are and how to contact them?
- Get everyone involved in a group stretch to keep those “tomorrow morning” sore muscles at bay!

On-the-road Checklist:

- Ride single file. Obey all traffic laws. Everyone in the group should hand signal, not just the point and the sweep. No one should go through an intersection until it is clear and safe, even if it means separating from the group temporarily.
- Be predictable; group riding requires more attention that riding alone.
- Remember that the whole group is only as fast as the slowest rider. Stay in a group. If you get split up, the group in the front should stop in a safe place and wait for the group that’s fallen behind to catch up.
- Every rider should be keeping at least two bicycle-lengths between them and the rider in front of them.
- Riders should stay in contact with one another by calling out turns and announcing holes, bumps, approaching cars from ahead and behind (“Car up!” “Car back!”), debris on the road and other dangers.
- Ensure everyone knows where the next stop or turn will be.
- When the group approaches an intersection, everyone must stop and make sure it’s clear before proceeding. Each rider must make their own decision about when it’s safe enough to cross.
- When riding up hills or narrow roads and impeding faster traffic, be sure to leave a gap between every three or four bikes for vehicles to get through if necessary. Motorists will be able to take advantage of the space between riders to safely manoeuvre around your group.
- If you plan on stopping at your destination and leaving your bikes unattended, be sure to bring bike locks to securely lock everyone’s bikes up until you’re ready to return home.
- Take frequent water breaks if the weather is hot or the terrain is challenging.
Discussion:

- What are some of the advantages and disadvantages of riding in a group?
- Were there a lot of volunteers for the positions of point and sweep?
- What part of the route would you change next time?
- How did you determine what to bring along for the ride? Did you have to use any of your emergency gear?
- How was planning and organizing important for the success of the ride?
- Would you plan another group ride? What would you change?
Changing a Tire

Time: About an hour.

What you will learn:
Being able to change the tube in a tire is a very important and empowering bicycle skill. Changing an inner tube at home with assistance and tools available is one thing; being able to change it when on a bike ride is another matter. In this fun activity, your club will have an opportunity to practice changing a tube as they problem solve.

What you need:
You will need a bicycle wheel, extra tubes, tire levers, an air pump and a pressure gauge.

Instructions:
Break up into groups of two or three. Each team needs the supplies listed above. If the existing tube in the bicycle wheel isn’t currently flat, be sure to let the air out of it to simulate a flat tire. Now, using the tools in the repair kit, and following the instructions on changing a tire in Unit 5 of the Reference Book, remove the current tube and mount a new tube back on the tire, being careful not to puncture either tube at any point. Inflate your new tube and voila! You have successfully changed a flat tire! If you want to really challenge yourself, try this again while out on a bike ride. Make sure you bring your whole kit including extra tubes and stop in a safe place that isn’t too far from help, just in case something goes wrong.

Discussion:
• How did you change the tube?
• Was it easy to change? If not, do you think it will get easier with practice?
• What equipment did you use to change the tube?
• What effect might the rim and spokes have on the inner tube?
• Have you ever patched a tube with a hole in it? How would you do that?
• How will what you learned help you prepare for a single or group ride?
Field Trip to Visit a Career Cyclist

**Time:** Half to a full day.

**What you will learn:**
In this activity, you will spend time with a local career cyclist and find out more about how an avid cyclist makes bicycles and bicycling all or part of what they do each day.

**What you need:**
You will need a local bicycle enthusiast who has committed their life to bicycling or bicycles, a few free hours, your bicycling journal and a pen, your club, and your enthusiasm for cycling!

**Instructions:**
As a club, find a local bicycle enthusiast in your community who has made a career out of cycling or bicycles. It could be a local bike mechanic, a local bike shop owner, a professional cyclist, or even a bicycle designer. If there isn’t anyone in your area like that, you could find someone who commits a lot of time and energy to bicycle racing on a part-time basis. You probably won’t have a hard time finding someone who is passionate enough about bikes to talk about them and answer your questions for a couple of hours! Set up a day to meet with them and learn about what they do. When you’re there, be sure to be respectful and listen carefully to what is being said. You will probably learn a lot! Before going, think of some questions you can ask. Bring your bicycling journal so you can write down notes to go over later. Maybe you’ll be inspired to pursue your own bicycle-related career!

**Discussion:**
- Did you enjoy your visit?
- Did you learn a lot? What was the coolest thing you learned?
- Do you think you might like to pursue a career in cycling or bicycles? How would you do that? Where would you start?
- How would you go about matching your personal interests and skills to a bicycle-related career?
Organize a Community Bike Rodeo

Time: A few days for planning and execution.

What you will learn:
By now, you’ve seen all the positive effects of cycling, and you probably want to shout it from the rooftops! In this fun activity, your whole club will organize a community bike rodeo.

What you need:
A little creativity, promotional items and whatever else you decide you need to pull off a great community bike rodeo!

Instructions:
As a club, give back to your community and encourage cycling by organizing and hosting a community bike rodeo. There are a many different ways to structure your rodeo; as long as you make it about promoting fun and safe cycling, you can’t go wrong! Get together as a club and brainstorm ideas for different stations that can each be overseen by interested club members. Some are listed below.

- Create a “bike wash” station where cyclists can clean their bikes. Be sure to include clean water, gentle soap and rags. It’s a great idea to offer bike lubricant as well, so cyclists can re-grease their chains and other components after the wash.
- Include a safety station where riders can come to have their helmets checked for proper fit and learn about proper safety techniques. Better yet, consider holding a bike safety clinic where club members explain the rules of the road, traffic signs and hand signals to interested riders. Get creative and think of fun ways to teach safety lessons, such as short skits or trivia games.
- Partner with a local bike shop to offer a free tune-up station. Community members can bring their bikes for a free tune-up or quick repair. Interested club members can partner with professional bike mechanics to expand their knowledge of basic bike maintenance.
- Add a skills station where cyclists can come and participate in fun, skill building exercises, like the ones in this activity book!
- It’s also a great idea to include a bike donation station where community members can donate old or hardly-used bicycles, which can be repaired or tuned-up for charity or kids in need.

I’m sure, as a club, you can come up with even more fun ideas for your bike rodeo. Just be sure to make it fun and educational. Perhaps this will become an annual event that makes your community more bicycle friendly! If you decide to charge for services offered at some of the stations, I would suggest donating any proceeds to a charity that provides bicycles for young people in need.

Once you’ve made up your mind what stations you want, you’ll need to promote your bike rodeo. This is a big job because you want as many people to attend as possible. Design posters and post them in schools, your local bike shop, gyms, community centres, etc. Post your event on social media sites like Facebook and Twitter. Contact your local newspaper or radio station and ask them to promote it. Tell your teachers so they can spread the word to the other teachers who can then tell their students. Don’t be shy! Make sure everyone knows when it is
and where. As for preparing for the event itself, consider splitting up into groups and putting a few club members in charge of each station. Get together and make a list of what is needed for each station and ideas about where you can go to get it. Stay organized and keep checklists. I’m sure your bike rodeo will be a great success!

**Discussion:**

- Did you think of a lot of other station ideas? What were they?
- Was your bike rodeo successful? Why or why not?
- Was it fun to teach the community about bicycles and bike safety?
- Have you noticed an increase in cycling since holding your bike rodeo?
- Would you hold another bike rodeo? Would you consider making it an annual event?
- Did you have people of all ages participate in your bike rodeo? How could you convince grown-ups to bicycle more?
- Do you think creating more cyclists would be good for your community? Why?