Ready to Race!
Introduction to competition
BMX Skills and Tactics
Canada’s Cycling Associations

- Bicycle Newfoundland & Labrador
- Alberta Bicycle Association
- CYCLINGPEI
- Cycling Association of Yukon
- CYCLINGBC
- Manitoba CYCLING Association
- BICYCLE NOVA SCOTIA
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Cycling Canada thanks the following for their contribution to this project:


Project Leader- Paul Jurbala, communityactive
How to be a better coach

Learn to listen, especially to the athletes – they are excellent teachers.

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Take a stand against doping and cheating in sport.

Thirst for knowledge attend coaching courses, get certified, stay up to date.

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Total workshop time is approximately 7.5 hours excluding breaks
Ready to Race! Cycling Introduction to Competition

Program Objectives

The Introduction to Competition Context

Introduction to Competition is the context for coaches who will primarily work with new competitive cyclists at the community and club level. These athletes will likely be in the Learn to Train to Train to Train stages of LTAD, although the context could apply to any new racer of any age. We expect these athletes to have basic but developed cycling skills and the desire to begin competing within a structured training and competition program. They should have passed through an entry-level Community Initiation or non-competitive Instruction program to help them develop the basic skills.

The key objectives for an Introduction to Competition Cycling Coach are therefore:

- Ensure participants have fun, safe, stage-appropriate experiences that make them want to continue in competitive cycling;
- Introduce participants to regular training 3 to 6 times per week;
- Introduce participants to competition in multiple cycling disciplines, within club, school or basic provincial-level competition programs;
- Assist the development of cyclists passing through their growth spurt, and be ready to modify training and competition accordingly, consistent with the LTAD Model;
- Create a foundation to prepare participants to advance to a more specialized development level of training and competition as they develop.

Introduction to Competition cyclists will usually participate 3 to 6 times per week for an entire season. The focus of the program will be on having participants develop skills and abilities needed for successful club-level competition. The theme of the course is “Ready to Race: Preparing for Competitive Success”.

Coaches will typically be volunteers who are operating within a club program as specialist youth/introduction coaches. Some coaches may be professional, paid coaches operating in a club or providing coaching from their business.

The Introduction to Competition coach development program emphasizes multi-sport and multi-discipline development of cyclists. Consequently, coaches in this program will participate in a Basic Cycling Skills Workshop which will focus on teaching, analyzing and correcting performance skills, and then take two discipline-specific skills Workshops, which will introduce discipline-specific skills as well as basics of race tactics. Coaches may select any two of MTB, BMX or Road skills Workshops. In addition, coaches will take two “classroom” learning sessions to develop their skills in areas including ethical decision-making, practice planning, sport program design, and supporting athletes in training and competition. (There is the possibility of delivering parts of these learning sessions through alternate means such as mentorship, on-line education, etc so the term “classroom” is used only to differentiate them from the Skills Workshops.) The learning sessions may be taken before or after the skills Workshops,
adding flexibility to the program. After each block of learning, coaches will complete evaluation activities to attain certification.

After certification, there will be opportunities to extend coach knowledge and competence through participation in advanced gradations of the program. Options will include coach participation in the third skills Workshop (Road, MTB or BMX) with Track, Downhill and Cyclo-cross skills Workshops planned for the future. Participation in professional development and learning activities, including but not limited to the advanced gradations, will be required for the coach to maintain certification.

This pathway shows the requirements for both Cycling’s Community Initiation and Introduction to Competition contexts. Note that the Basic Cycling Skills module is shared between the two contexts.
Outcomes for the Cycling Introduction to Competition Program

The Introduction to Competition program consists of five independent sessions. The following are the learning outcomes and criteria for each Workshop session.

Ready to Race! (Cycling Introduction to Competition) Training Basics – 14 hours

**Ethical coaching:**

- Reflect on the importance of behaving respectfully toward participants, officials, parents, and spectators;
- Identify key ethical issues in common situations that can be encountered in the context of competitive cycling, including doping;
- Describe a course of action for dealing with the situation that is consistent with the values and philosophy of the NCCP;
- Clearly describe doping control procedures, rules, consequences and risks associated with doping.

**Practice planning:**

- Set an appropriate structure for the practice, including warm-up, skill development, physical preparation, cool-down, etc;
- Be able to modify training sessions appropriately based on developmental, physical and environmental factors;
- Identify risk factors that may be encountered in training and competition;
- Develop an Emergency Action Plan (EAP).

**Providing support to athletes in training:**

- Know the basic equipment needed for cycling and how to use it safely;
- Verify that facilities and equipment pose no safety risks;
- Coach an appropriately structured and organized training session using a practice plan listing clear goals, activities, and elements (eg cool-down, hydration);
- Explain activities, and provide feedback, in a way that is consistent with the guidelines set for the age group within the cycling LTAD model;
- Select activities and deliver feedback in a way that promotes self-esteem;
- Understand and demonstrate basics of working with cyclists with a disability (AWAD).

**Providing support to athletes in competition:**

- Explain the fundamental rules that govern the activity;
- Provide advice on eating and drinking before, in and after competition and training;
- Prepare athletes for competition by assisting them to follow a pre-race plan including preparation of equipment, nutrition, tactical and mental preparation and warm-up activities;
• Provide advice and feedback at the competition venue in a way that is consistent with the guidelines set for the age group within the cycling LTAD model and in a way that promotes self-esteem;
• Behave respectfully toward the participants, officials, parents, and spectators.

**Ready to Race! (Cycling Introduction to Competition) Training to Race – 14 hours**

**Design a Sport Program/Practice Planning:**

• Understand and apply key concepts in physical training for cyclists, including physical performance factors (i.e. flexibility, energy systems), training principles, etc;
• Understand and apply key concepts in mental training for cyclists, including ideal performance state, and basic techniques, such as relaxation, self-talk, etc;
• Design a training session that demonstrates understanding of cycling LTAD stage-appropriate activities and balances physical, mental, tactical and other needs;
• Design effective microcycles (weekly programs) that promote cyclist development, consistent with the cycling LTAD model;
• Modify daily and microcycle plans based on athlete ability and environmental factors (weather, etc);
• Design and deliver a periodized seasonal training and competition program based on the cycling LTAD model;
• Use a multi-discipline and multi-sport approach consistent with the cycling LTAD model in design of the program;
• Use basic metrics (e.g. training:competition ratio, indices of training intensity, etc) to monitor and promote athlete development and modify program as needed;
• Use basic physical performance tests including use of heart rate monitor to obtain data;
• Use Awareness and First Contact stages in design of programs for AWAD.

**Manage a Sport Program**

• Manage club/team logistics including basic finances, competition selection and athlete selection;
• Communicate effectively with participants, parents, and organizations;
• Use metrics and assessments to report on athlete progress.

**Basic Cycling Skills Workshop – 8 hours**

**Analyze Performance**

• Analyze stages in performance of basic cycling skills, using a template;
• Use an observation plan and appropriate observation strategies to detect skill performance;
• Explain activities, and provide feedback, in a way that is consistent with the guidelines set for the age group within the cycling LTAD model;
• Teach basic riding skills and know how to identify and correct errors in skill performance.

Skills and Tactics Module: BMX – 7 hours

Providing support to athletes in competition:

• Explain the fundamental rules that govern BMX racing;
• Provide advice on eating and drinking before, in and after competition and training;
• Provide advice on basic BMX racing tactics;
• Prepare athletes for competition by assisting them to follow pre-race and post-race plans including preparation of equipment, nutrition, tactical and mental preparation, warm-up and cool-down and evaluation activities;

Analyze Performance

• Identify and correct errors in BMX positioning if they exist;
• Analyze stages in performance of BMX cycling skills, using a template;
• Use an observation plan and appropriate observation strategies to detect skill performance;
• Explain activities, and provide feedback, in a way that is consistent with the guidelines set for the age group within the cycling LTAD model;
• Teach BMX riding skills and know how to identify and correct errors in skill performance;
• Identify and correct errors in tactical performance.

Skills and Tactics Workshop: MTB – 7 hours
Skills and Tactics Workshop: Road – 7 hours

These modules have similar objectives to the BMX module. Coaches are required to take 2 of the 3 discipline-specific Skills and Tactics module Workshops to complete training as a “Race Coach”. Coaches must successfully complete an evaluation after training to be eligible for certification.
Evaluation of the Cycling Introduction to Competition Program

Evaluation of coach competence against a set of pre-determined standards is a key component of the new NCCP. All coaches must successfully complete evaluation in order to become Certified. Generally, workshops and modules are delivered by a Learning Facilitator while evaluation is conducted by a trained Evaluator, who is a different person. However, in the case of the Skills Modules the Learning Facilitator will deliver assessment and feedback (see below).

The evaluation criteria, standards and methods are outlined in the "Outcomes, Criteria and Standards" document. In general, to achieve a learning Outcome, coaches must meet specific Criteria. Standards are used in the evaluation to determine the level to which the coach met displays competence in meeting the Criteria.

There are several types of evaluation activities in the Cycling Introduction to Competition program. These are:

Make Ethical Decisions On-line Evaluation: This component is managed by the Coaching Association of Canada as an on-line evaluation. It is required. The coach should complete this evaluation after the Ready to Race! Training Basics workshop.

Formative Assessment: Before, during and after completing the Ready to Race! Training Basics workshop, the coach will complete a variety of tasks including preparation of a portfolio of work. This will primarily include written work, such as preparation of plans or answers to scenario questions. After the Training Basics workshop an Evaluator will assess this work and provide constructive feedback. This is an assessment, not an evaluation, and is intended to support the coaches’ learning.

Basic Cycling Skills and Skills and Tactics Modules: The performance of the coach in observing, analyzing and teaching skills and detecting and correcting errors in skills and tactics will be assessed by the Learning Facilitators of these modules, and the coach will receive constructive feedback at or following the Module.

Summative Evaluation: Upon completion of all five Ready to Race! workshop modules the coach participates in evaluation. Successful evaluation is required for NCCP certification as an Introduction to Competition Race Coach. The final evaluation of the coach will involve seeing the coach “in action” and measuring his/her performance against the standards. This will occur at an event scheduled by the Provincial/Territorial Cycling Association.

For more information on evaluation of the program, contact your Provincial/Territorial Cycling Association.
The NCCP vision for children in sport

Introduction to Competition-level cyclists may be as young as 5 years old and as old as 50 or more. However, it is expected that the majority will be children, adolescents or young adults. A few comments on coaching children are appropriate here- and these comments apply to older participants as well!

Children play a sport in order to have fun and to be with friends. Every child involved in sport should have a positive experience, which is only possible when the sport environment is both physically and emotionally safe.

The children depend on you, the coach, to build and maintain the sport environment. Children will be able to develop a love for sport when your leadership is directed at valuing each and every one of them. You have an important opportunity to have an impact on the lives of the children involved in your program.

This workshop is intended to support your efforts by providing you the opportunity to learn and improve as a coach. Congratulations on taking the step to participate in this workshop, and thank you for the time that you are giving to develop sport for children in Canada.

The NCCP Structure

The NCCP model distinguishes between training and certification. Coaches can participate in training opportunities to acquire or refine the skills and knowledge required for a particular coaching context (i.e. Competition-Introduction) as defined by the sport and be considered “trained”. To become “certified” in a coaching context, coaches must be evaluated on their demonstrated ability to perform within that context in areas such as program design, practice planning, performance analysis, program management, ethical coaching, support to participants during training, and support to participants in competition.

For more information on the changes to the NCCP, visit the Coaching Association of Canada website at www.coach.ca.
As you participate in the Workshop, keep in mind the following diagram as a model for sport. You play a key role in establishing the tone of practices and competitions and ensuring that the needs of the participants are central to all decisions made.
Using this Workbook

This Ready to Race! Cycling Introduction to Competition Workshop is designed to give coaches opportunities to work with fellow coaches, learn about a variety of situations common in cycling, and practice their skills. This practice will occur in several settings: in a "classroom" environment, at a cycling venue, or on a parking lot or other surface where cycling skills can be learned and practiced.

As you advance through the Workshop, this Workbook will be used to capture your ideas and answers to a number of questions. The Workbook will also guide you to Reference Materials where you can find a variety of information and sample forms which you will need to prepare for and deliver a program. You will also complete work in a Portfolio, which will be used for all workshops in the Ready to Race! Program and will be assessed by an evaluator at different times. Finally, you can record some of the great ideas you find in the Workshop on an Action Card, which you should keep in front of you as the Workshop progresses.

The following symbols appear in the Coach Workbook and the Reference Materials, to help you find resources.

Enjoy the Workshop!
Workshop
Action Card

Date: _______________  Location: _______________

**ACTIONS:**

I intend to **STOP**...

I intend to **CONTINUE**...

I intend to **START**...

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GREAT IDEAS:

New friends in coaching from this workshop...

For coaching tips and more information about coaching workshops, visit the Coaching Association of Canada website at:
Step 1  Participants and their Needs

Meet the Riders

In this Workshop you meet two different BMX riders- Serena and Louis. They will be the case studies for many of the examples in the Workshop. You will also have the opportunity to create or use a profile of a rider you are familiar with. But first, let’s meet Serena and Louis.

Serena is 7 years old. She used to ride her BMX bike around the neighborhood and try tricks in the schoolyard but her friend started racing at the nearby track and soon Serena wanted to try racing as well. She has been to the track several times and met with the coach but this Sunday will be her first race.

Louis is 6. His older brother races BMX so Louis is used to going out to the track. Like Serena, Sunday will be his first race. He has met the coach and done a clinic at the track but Louis’s father is the “family coach”. Louis really, really wants to be as good as his big brother.

Do you know any riders like Serena and Louis?

Knowing about the participants you are coaching

1. Indicate how many of the participants you work with are in each of the following age ranges:

   Young children: 3-5 yrs (  )

   Children: 6-7 yrs (  )

   Children: 8-9 yrs (  )

   Pre-puberty: 10-11 yrs (  )

   Early puberty: 12-15 yrs (  )

   Adolescence: 16-18 yrs (  )

   Adult: 19+ yrs (  )

   Average age (range):
2. Fill in the following information on the participants:

Sex: ____ (M)___ (F)

Age Category:

If they compete, their Category (e.g. “Junior” “U9”): _______

LTAD Stage:

Take a look at the Long-Term Athlete Development stage descriptions in the Reference Materials. How many participants do you have in each of the following stages?

FUNdamentals (       )

Learn to Train (       )

Train to Train (       )

Learn to Compete (       )

Train to Compete (       )

Others (specify):

3. Now refer to the Athlete Profile form in your Portfolio. If you have not done so in a previous Workshop, take a few minutes to fill out the Profile for an athlete you coach. If you wish, you can make up an imaginary profile for an athlete typical of those you will coach. If you have already made a Profile, take a moment to review it.

4. Pair up with another coach who coaches a similar age group and list any specific ways you would adapt what you have the participants do or how you would coach based on the growth and development needs of the age group that you will be coaching. If you work with different-age participants at the same time, how do you adapt the way you coach to meet the needs of your participants?

For example: I keep my instructions short because eight-year-olds can’t stay still and listen for long
5. Review the information on Athletes With A Disability in the *Reference Materials*. With a partner, brainstorm ways to make your program more attractive to people with a disability. Are there any adaptations you would need to make?

6. Spend a few minutes on your own and note on your Action Card anything that you learned about the needs of the participants you coach (Step 1).
Step 2  Getting Ready to Race

Basics of BMX Racing

Event analysis: physical, mental, tactical

In the Ready to Race Training Basics and Training to Race Workshops you analyze cycling events in terms of their physical, mental and tactical demands, and develop training and pre-race routines to meet these needs for individual racers. In this Workshop you briefly review the demands of BMX racing and use the results to guide creation of your pre-race and in-race plans. If you have already completed Training Basics and/or Training to Race you will be better prepared.

1. Read over the section titled “Cycling Event Analysis” in the Reference Materials and complete the “Analyzing Your Cycling Event” chart in the Portfolio. If you have already done this, review your material briefly. Transfer the descriptors for your event from the Portfolio to the following table:

<table>
<thead>
<tr>
<th>Physical</th>
<th>Mental</th>
<th>Tactical</th>
</tr>
</thead>
<tbody>
<tr>
<td>Event Name:</td>
<td>BMX</td>
<td></td>
</tr>
</tbody>
</table>

2. As a coach, if you could only help a racer by suggesting one key preparation activity in each area (Physical, Mental, Tactical) in the last 36 hours leading up to the race, what would you suggest? Fill in the following table (an example has been provided):

<table>
<thead>
<tr>
<th>Physical</th>
<th>Mental</th>
<th>Tactical</th>
</tr>
</thead>
<tbody>
<tr>
<td>One day before the race (off site)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Morning of the race (on site)</td>
<td>Warm up well just before the start</td>
<td></td>
</tr>
</tbody>
</table>
BMX Rules and Role of the Coach

An important role of the coach is to ensure racers know the basic rules of the sport so they can compete fairly and safely. Sometimes rules include both fairness and safety, for example, rules prohibiting aggressive physical contact between racers.

1. On your own, list 3 to 5 of the most important BMX racing rules you would want to teach first-time racers like Serena (age 7) and Louis (age 6). Are these rules concerning fair competition, safety, or both? Do they concern equipment or conduct? You may want to refer to a Rulebook for ideas. Then fill in the chart below:

<table>
<thead>
<tr>
<th>Rule (list here)</th>
<th>Motive? (circle one)</th>
<th>Category? (circle one)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fairness</td>
<td>Equipment</td>
<td></td>
</tr>
<tr>
<td>Safety</td>
<td>Conduct</td>
<td></td>
</tr>
<tr>
<td>Both</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

2. What are some good ways to teach rules to new racers? Have a brief discussion with your group. Does anyone have especially creative ways to introduce rules?
3. Other than teaching rules, what are the coaches’ roles and responsibilities related to the rules when at the race? For example, how does the coach interact with the racer while he/she is racing? Is there a rule about this? What about interaction between coach and race officials? What rules govern this?

<table>
<thead>
<tr>
<th>Interaction</th>
<th>Related Rules</th>
</tr>
</thead>
<tbody>
<tr>
<td>How I interact with my rider during the race…</td>
<td></td>
</tr>
<tr>
<td>How I interact with officials at the race venue…</td>
<td></td>
</tr>
</tbody>
</table>

Tip:
It is difficult to learn rules by reading them or by having someone simply explain them to you. One way to introduce rules is to play a slow-motion mini game, and freeze the group each time you want to point out one of the basic rules. Another way is to show a short video of the sport, and freeze the video to explain a rule as it comes into play.

Tip:
It is a good idea to establish a code of behaviour with your team that will help determine ahead of time how you will act or how the team members will act in a given situation. When a challenging situation does occur and the heat of the moment might impair someone’s judgment, the code is there to guide behaviour.

Establishing a parent code of behaviour is a good idea as well. Guidelines for establishing a code for participants, coaching staff, and parents as well as sample codes of behaviour are provided in the Reference Materials. It is strongly recommended that those expected to adhere to a code play a role in helping to put it together.
Safety Check and Your Emergency Action Plan

In the Ready to Race Training Basics Workshop you identify a range of risks that participants face, consider your liability as a coach, and develop a Safety Check procedure and an Emergency Action Plan. In this Workshop you review the Safety Check and Emergency Action Plan, and complete the EAP if you have not already done so.

Responding to an emergency

1. What, in your opinion, constitutes an emergency situation? In other words, when would you call for emergency medical services?

2. What would you do if an emergency occurs (what is your Emergency Action Plan, or EAP)? Use the blank EAP Worksheet in the Portfolio and create your own EAP for the facility that you practise/race at most often. Feel free to use the Reference Material sections entitled Emergency Action Plan (EAP), Emergency Action Plan Checklist, and Sample Emergency Action Plan to help you.

Liability

No matter what their certification, experience, employment or volunteer status, sport discipline, or location of residence, coaches at all times have a legal obligation to provide a safe environment for participants. Information on your liability as a coach can be found in the Reference Material section entitled Coach Liability as well as in the appendix to the Reference Material entitled Legal Questions and Answers (FAQ).

Safety Check (when at the practice facility or venue)

1. Pull out a copy of the Facility Safety Checklist from the Portfolio. Use the checklist to do a five-minute safety check of the venue.

2. Compare what you found to what other coaches found.
3. What parts of a bike do you need to be checked to be sure it is in safe working order for a BMX race? Compare your ideas with the Bike Safety Checklist in the *Reference Materials*.

Spend a few minutes on your own and note on your Action Card what you learned about practice planning and safety.
Race Preparation 1: The Day Before the Race

Scenarios

The day before the race is important part of race preparation. It is an opportunity for mental and physical preparation, rest and proper nutrition and hydration, and checking and organization of equipment. Here’s how our two novice racers, Serena and Louis, spent the day before their first race.

Serena is busy. She has a dance lesson on Saturday morning and a friend’s birthday party in the afternoon. As a result she can’t follow the coaches’ suggestions for warm up or diet, although she has had a lot of cake and pop. She’s still too full to eat much dinner.

At home, Serena’s mother has packed her race bag for tomorrow, and Serena’s dad had her bike checked out at the local shop earlier in the week. They will leave early to get to the track.

Serena’s used to having a lot going on. She’s usually calm and happy and having the family run around does not cause her stress. When she’s unhappy she tends to become sullen and quiet and she tries to go away from the scene. Today, though, everything is fine. She is asleep by 11 pm.

Things are different with Louis. Louis’ father takes BMX seriously and has made sure Louis is ready. They arrived at the track Friday evening and are staying at a nearby hotel. On Saturday morning Louis rode the track three times to make sure he knew the layout, even though he has been there before. His older brother is there too, and is getting more of Dad’s attention. That irritates Louis a bit.

In the afternoon they go back to the hotel, where Louis and his brother play in the pool. Dad is careful with his son’s food - he makes sure they don’t get too many sweets, lots of water to drink, and the evening meal is balanced and fairly healthy. He talks to the boys about the race tomorrow and tries to keep it light. Both boys are asleep by 11 pm. Dad checks over the bikes one more time.

Although Dad has not been pushy or aggressive, just thinking about his first race and the extra focus on racing has made Louis nervous. He’s not showing it but his mind is on the race - on winning. But what if he crashes? Louis tries to act older, like his brother, but when things go wrong he can really explode. Right now, though, he is asleep, dreaming of the big race.
1. List your main objectives for a new racer on the day before the race. Write one or two key points using the following five headings: Physical, Mental, Technical/Tactical, Sustenance (nutrition/hydration and rest/recovery), Other.

Physical: ____________________________________________________

___________________________________________________________

Mental:_______________________________________________________

___________________________________________________________

Technical/Tactical: __________________________________________

___________________________________________________________

Sustenance:__________________________________________________

___________________________________________________________

Other:________________________________________________________

___________________________________________________________

2. How did Serena and Louis do compared to the objectives you created? Rate them on a 1 to 5 scale where 1 is “Did not meet objectives” and 5 means “completely met objectives”.

<table>
<thead>
<tr>
<th></th>
<th>Physical</th>
<th>Mental</th>
<th>Tech/Tactical</th>
<th>Sustenance</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>Serena</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Louis</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

3. (a) Take a few minutes and discuss your ideas with another coach. Don’t discuss how to achieve the objectives, just the main objectives for the day, and how well you think Serena and Louis met the objectives. Did you think of any other objectives to add to your list?

(b) Pick one key area (eg. Physical, Mental) where you think one athlete (Serena or Louis) was the farthest from your ideal objective. What would you have done differently to prepare the rider? Discuss.
Now (or later, as an assignment) fill out the *Race Preparation 1: The Day Before the Race – Racer’s Schedule* form in the *Portfolio* using your own case study athlete profile as an example.
Race Preparation 2: To the Gate

Scenarios

It’s the big day! Serena and Louis are going to the track for their first race.

Serena is at the track early. Her dad helps her register and then gets her bike ready while she puts on her clothing, shoes and helmet. She warms up a bit, but she is a little distracted by all the other girls. Which ones will she be racing against? One of them has a much nicer jersey and pants. She finds another girl she knows and goes off talking to her.

It’s time for her first moto. Her dad finds her with a few minutes to spare, but he is a little agitated. More trouble- her front tire has gone almost flat! In a panic Serena’s dad does a quick tube change and gets her to the line just in time. Serena’s really distracted now- she’s forgotten anything she’s learned about making a good start.

It’s not going that well for Louis, either. He and his brother are at the track in good time, they register, dress, warm up and then sit down and have a little drink of water. There is lots of time before Louis’ moto and his bike is perfect. Dad’s keeping it fun and everything seems fine- but then Louis bursts into tears. He’s really nervous and says he doesn’t want to race today. Now what?

1. List your main objectives for a new racer on the morning of the race. Write one or two key points using the following five headings: Physical, Mental, Technical/Tactical, Sustenance (nutrition/hydration and rest/recovery), Other.

<table>
<thead>
<tr>
<th>Physical</th>
<th>Mental</th>
<th>Tech/Tactical</th>
<th>Sustenance</th>
<th>Other</th>
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</table>

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2. How did Serena and Louis do compared to the objectives you created? Rate them on a 1 to 5 scale where 1 is “Did not meet objectives” and 5 means “completely met objectives”.

<table>
<thead>
<tr>
<th></th>
<th>Physical</th>
<th>Mental</th>
<th>Tech/Tactical</th>
<th>Sustenance</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>Serena</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Louis</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

3. (a) Take a few minutes and discuss your ideas with another coach. Don’t discuss how to achieve the objectives, just the main objectives for the pre-race period, and how well you think Serena and Louis met the objectives. Did you think of any other objectives to add to your list?

(b) Pick one key area (eg. Physical, Mental) where you think one athlete (Serena or Louis) was the farthest from your ideal objective. What would you have done differently to prepare the rider? Discuss.

(c) If you didn’t choose Louis as an example in (b), how would you help him? Make a few notes.

(d) The last few words a coach says to a rider on the way to or at the start line are important. They can either motivate or distract a racer. Talk to a fellow coach and come up with some guidelines- Do’s and Don’ts.

Now (or later, as an assignment) fill out the Race Preparation 2: To the Start Line – Racer’s Schedule form in the Portfolio using your own case study athlete profile as an example.
Race Preparation 3: The Race

Understanding BMX Strategy and Tactics

What is strategy? What are tactics? How do they work together? Your Learning Facilitator will lead a brief discussion. You can also review terms in the Glossary in the Reference Materials.

1. Take a moment to fill in the following table with some examples:

<table>
<thead>
<tr>
<th>Event: BMX</th>
</tr>
</thead>
<tbody>
<tr>
<td>One basic Strategy:</td>
</tr>
<tr>
<td>Tactic 1:</td>
</tr>
<tr>
<td>Tactic 2:</td>
</tr>
<tr>
<td>Tactic 3:</td>
</tr>
</tbody>
</table>

2. Different racers have different abilities. List some of the factors you think might affect the ability of a racer to understand and use strategy and tactics. (Example: “Young children may have trouble understanding abstract concepts like ‘strategy’”)

3. As a coach, what could you do about one or more of these factors? Discuss with a fellow coach or the group.
4. In BMX it is sometimes said “the race is to the first turn” or “the start determines everything”. What do you think that means? Your facilitator will continue the discussion of BMX strategy and tactics with an emphasis on the start, track positioning and the finish. Use the following chart to record some notes.

<table>
<thead>
<tr>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Start:</td>
</tr>
<tr>
<td>Track positioning:</td>
</tr>
<tr>
<td>Finish:</td>
</tr>
</tbody>
</table>

The specific skills required to be successful will be covered in the third part of this Workshop, “Step 3 – BMX Skills and Tactics”
Mental Control

In racing, not everything goes according to plan. Racers may be distracted, have a poor start, crash, or suffer a mechanical problem. At these times, what they say to themselves and the decisions they make can be the difference between success and disappointment.

In the Training Basics and Training to Race Workshops you work on mental preparation in more detail. In this Workshop, you will briefly look at in-race focus and use of key words.

Scenario

They’re racing! Even though they’ve just entered the first turn, Serena and Louis are having very different experiences in their races.

Serena was distracted when the gate dropped and she lost a few places right away. As she realized this, a wave of something like combined panic and excitement swept over her. She was losing! She started pedaling as hard as she could not to lose any more places. Fortunately, as she entered the turn, she was in a good position on the track and nobody was passing her. But she was in third place!

Louis didn’t want to race but his Dad calmed him down and talked him into giving it a try. His Dad said, “Whatever you do, I will be proud of you.” Somehow Louis timed the start just right and, without seeming to try, he was leading going into the first turn! He felt the same combination of panic and excitement as Serena did, but for a different reason. He was winning—what should he do now?

1. Earlier, when you were reviewing the “Race Analysis” information in the Reference Materials and filling out the Analyzing Your Cycling Event sheet in the Portfolio, you came across some of the mental preparation needs for BMX racing. Review these briefly.

(a) What things do you think Serena and Louis should be focusing on at this point in the race? Put a check mark beside those things on the following chart.

<table>
<thead>
<tr>
<th>Correct Focus or Not?</th>
<th>Serena</th>
<th>Louis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Where the other competitors are around me</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Getting positioned for the next turn or jump</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Winning</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Can Mom and Dad see me?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>My bike isn’t very good…</td>
<td></td>
<td></td>
</tr>
<tr>
<td>This is scary! Help!</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
(b) Work with another coach and develop a race focus plan to help your own riders. First, break the race into main phases or blocks, such as Start, First Turn, and Finish. Then list 1 or 2 key things for the rider to focus on in that phase. Finally, create a “cue word” to help the rider remember his or her focus at that time. (The “cue word” can be 1 to 3 words long, but it should be as short, simple and powerful as possible.) Fill in the Race Focus Plan form in the Portfolio.

Coach Support During Competition

When the race starts, it’s all up to the racer. The coach can only help in limited ways. However, these are still important functions and the coach should be able to manage them well. In this section we will look at the “5 Ws” – Who, What, Where, When and Why- of coach activity.

Note: in BMX racing, the rider usually participates in a number of heats or “motos”. Therefore the day includes a number of repetitions of pre-race, in-race and post-race tasks for the coach and rider. This section only deals with what the coach may be doing while the rider is racing on the track.

1. Take a look at the following list of activities the coach could be doing while the racer is competing on the track. Put a check mark beside the activities you think are appropriate.

<table>
<thead>
<tr>
<th>Coach Activity</th>
<th>Appropriate?</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Watching the rider closely to analyze his/her performance</td>
<td></td>
</tr>
<tr>
<td>2. Cheering the rider on</td>
<td></td>
</tr>
<tr>
<td>3. Shouting instructions to the rider</td>
<td></td>
</tr>
<tr>
<td>4. Helping to prepare other riders who will be racing soon</td>
<td></td>
</tr>
<tr>
<td>5. Having a quick snack or drink</td>
<td></td>
</tr>
<tr>
<td>6. Calling home to check on dinner</td>
<td></td>
</tr>
<tr>
<td>7. Taking video of the racer for later video analysis</td>
<td></td>
</tr>
<tr>
<td>8. Preparing snacks or drinks for the rider(s) when they finish</td>
<td></td>
</tr>
</tbody>
</table>

Get some feedback from the group on your choices. Did you think of any other appropriate tasks? Did you change any of your choices?

2. Now, think back to your Observation Plan from the Basic Cycling Skills Workshop. Choose the activity of “watching the rider closely to analyze his/her performance”. Apply ideas from the Observation Plan and fill out the following table:
## Coach In-race Planning Chart

<table>
<thead>
<tr>
<th>Activity: Watching rider and analyzing performance</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Who</strong> (Who is doing the activity?)</td>
</tr>
<tr>
<td><strong>What</strong> (What is the activity?)</td>
</tr>
<tr>
<td><strong>Where</strong> (Where is the coach positioned? What is the best position?)</td>
</tr>
<tr>
<td><strong>When</strong> (How long does the activity take? When does the coach need to be in position?)</td>
</tr>
<tr>
<td><strong>Why</strong> (What is the purpose of the activity? What should be the outcome or products?)</td>
</tr>
</tbody>
</table>
Race Preparation 4: Post-Race

Post-race Activities for Rider and Coach

After the race the rider needs to perform several important activities, including cool-down and recovery, race review, and possibly the beginning of preparation for the next race. This section examines what the coach can do to help the rider after the race.

Scenario

Serena finished second. She managed to get by one girl but the leader was just too far out in front. She’s both a little disappointed and a little pleased. In fact, by the time she sees the coach standing next to her parents, she’s almost forgotten about the race. She would like a drink.

Louis is angry. He also finished second; another boy passed him just in the last turn. Louis had gotten quite excited about winning and it distracted him, but he doesn’t see it that way. He thinks he failed.

1. Your Learning Facilitator will lead a brief discussion about post-race activities the coach should do, including how to hold a post-race discussion with the athletes. Think about how you would handle a discussion with either Serena or Louis. What should the coach stress in discussion with each rider? What should the coach avoid doing or saying?
Step 3  BMX Skills and Tactics

In this part of the Workshop we will focus on BMX skills, how to teach them, and how to integrate them into tactics. However, before we begin, this is also a good time to review the basic BMX cycling position.

BMX Cycling Position

1. Having the correct cycling position is important to the comfort, safety and performance of the cyclist. Review the Basic Cycling Position page in the Reference Materials, then observe a cyclist while riding. (You may be shown a video instead.) Use the following checklist to record your observations.

Yes  No

☐ ☐ While riding, the cyclist’s foot is placed appropriately over the pedal axle: ball of foot over axle.

☐ ☐ When the crank arm is pointing forward and parallel to the ground, the cyclist’s knee is roughly over the pedal axle.

☐ ☐ While riding, viewed from behind, the cyclist’s hips do not rock excessively. (Note: you may want to lower the saddle to facilitate learning some of the skills.)

☐ ☐ While riding, viewed from the side, the cyclist’s elbows are slightly flexed, the head is up, and the upper body appears relaxed, comfortable, and does not move excessively due to the pedaling motion.

☐ ☐ While riding, viewed from the front, the cyclist’s hands are roughly shoulder-width apart, and the hands and fingers can easily reach the brake and gear controls. The top of the hands are at a 90 degree angle to the ground.

For any “No” answers, record your options for making a correction to the position. If there were no “No” answers, select two items from the checklist and list correction options as if there were faults.
BMX Skills: The ABCs

1. Review the Cycling Skills Model in the *Reference Materials* and familiarize yourself with the ABCs. Then watch a demonstration by a cyclist riding a BMX skill. Which of the ABCs can you observe in action? Which ABCs are not performed?

2. Review the three-phase and five-phase analysis model in the *Reference Materials*. You’ll have a chance to see a demonstration of a skill. Can you spot the different phases? Which ABCs occur in each phase? Is the skill three-phase or five-phase? Why?

3. To be able to spot the phases and ABCs as participants attempt to learn new skills, you’ll need an Observation Strategy. Think about the best place to watch the skill from (Front? Beside? Behind? High or low?) Will this be the same for every skill?

Practicing BMX Skills

Now you will have an opportunity to practice and instruct BMX cycling skills yourself. The eight BMX skills which you will instruct are:

- Starts
- Pumping
- Rolling
- Jumping
- Manualling
- Cornering (medium- to high-speed)
- Pedalling
- Gearing and cadence

*Due to Workshop time limits, you may not be able to practice every skill.*

As you watch the demonstrations of the activities and try them yourself, think about the following questions. You may want to use your *Skill Analysis Sheet* to make notes:

1. What are the phases of each skill? How does the demonstration help make the phases clear?
2. What are the ABCs that go into each skill? How does the explanation by the demonstrator or learning facilitator help make this clearer?

3. When you tried the skill yourself, what were the key cue words or phrases that helped you perform the skill correctly?

4. Use the *Skill Analysis and Error Correction Sheet* in this *Workbook*. You will only be using the Observation Strategy and Key Movements boxes at this time. Fill out these areas for the skill you have selected. Then, watch a demonstration of this skill, and put tick-marks on your sheet when you see the ABCs. Did your observation strategy work?
Model coaching by the facilitator

The facilitator will demonstrate how to coach an activity with a group of participants. Look at Self-assessment Sheet #1 and watch how the facilitator follows the guidelines for:
- selection of the activity
- safety before the activity
- explanation
- demonstration
- organization
- safety during the activity.

Planning to lead an activity: Using the Lesson Plans

1. Choose one of the skills from the BMX Lesson Plans in the Reference Materials that you think would be suitable for your participants. Review the purpose of this skill and its key characteristics.

2. Pull out one copy of Self-assessment Sheet #1 from this Workbook or the Reference Materials and have a look at all the points on the sheet. Have a look also at the Reference Material sections entitled Teaching and Learning and The Steps of Coaching an Activity.

3. Later, you will be asked to coach your chosen activity using the other coaches as your participants. Think about how you will coach your activity using the Self-assessment Sheet and the Reference Material as guides. Use the Cycling Skill Planner on page 41 of this Workbook to create your plan.
Spend a few minutes on your own and note on your Action Card what you learned about delivering a practice session. Review and modify your Cycling Skill Planner as needed.

Tip:
How you organize activities and how you arrange for the transition from one activity to the next will be important in maintaining the attention and the interest of the participants. Participants are happiest when they are busy, when they have lots of chances to try an activity, when they succeed more than they fail at the activity, and when they have some choice in what they are doing. Choose challenging activities that participants can do successfully at least seven out of every 10 tries. Maximize the time that they are active, with very little time spent waiting in line or in transition between activities. Use the services of any available parents or helpers who can help you arrange your activities in stations. Allow participants some say in what stations you set up and the ways they move between them.

Skill Progressions

Skill progressions are an important part of teaching a skill effectively. Basically, skill progressions consist of breaking down skills into steps and practising them from the easiest to more complex levels. The facilitator will present some information about creating skill progressions.

1. Return to and review the skill development lesson you have been preparing. Create a skill progression list for your activity on your Skill Planner sheet.

2. Think about presenting your lesson to a group of young participants (age 8-9, for example). What skill progression would be appropriate? How could you keep the interest of the participants as they practiced?
Basic BMX Tactics

Now that you have had a chance to work on BMX skills, it is time to see how the skills are linked (or “integrated”) to execute basic BMX tactics. Think back to the discussion of BMX strategy and tactics from earlier in this Workshop.

The basic BMX tactics that will be covered in this Workshop are:

- Blocking and Passing
- Turn tactics
- Track management.

The facilitator will lead a session on BMX tactics. As you observe each tactic, look for the following:

1. Which skills combine to allow the rider to execute the tactic effectively? How are the skills linked together? This may happen very quickly, and you may need to observe the tactic several times to see how the skills combine.

2. What does this mean for the teaching of skills and tactics by the coach? How would the coach’s job be different when instructing different levels of athlete (athletes in different LTAD stages)?

3. Use a new Skill Planner Sheet to prepare a tactics lesson. Be sure to choose a tactic that builds upon the skill you chose previously. (When complete you will have filled out two Skill Planners- one for a skills lesson, one for a tactics lesson. Include these in your Portfolio)

Preparing to Lead an Activity:
Model coaching by the facilitator

The facilitator will demonstrate how to coach an activity that includes tactics with a group of participants. In addition to seeing how the tactics are used, think about how they are developed (skill progression) and how the facilitator communicates with the participants. Look at Self-assessment Sheet #2 and watch how the facilitator follows the guidelines for:

- skill progression
- intervention
- general communication.
Communicating and interacting with participants

1. The facilitator will now present some information on effective communication and intervention (feedback) techniques. You can also take a moment to review the information on Teaching and Learning, and The Steps of Coaching an Activity in the Reference Material. Record any ideas on your Action Card.

2. Pull out the copy of Self-assessment Sheet #2 from this Workbook or the Reference Material. Have a look at the Reference Material sections entitled Self-esteem and Creating a Participant-centered Environment. Will this information affect the way you present your lesson? Make additions to your Skill Planner Sheet.

Practice coaching session

Now you will have an opportunity to present your skill lesson to fellow coaches. You will be asked to:
- coach your activity
- listen to some feedback from the facilitator and other coaches
- take five minutes to complete Self-assessment Sheet #1 and Sheet #2
- jump back in and be a participant while another coach practises.

Debriefing your practice coaching session

Discuss your self-assessment with another coach. Practise being an active and effective listener when another coach is commenting on his/her performance.

3. Take a few minutes on your own and note on your Action Card anything that you learned from the first practice coaching session. Be sure to note things you did well, things you need to improve, and ideas from watching others practice coach.
4. Compare your completed *Skill Planner* sheet for the skill you selected with the *Sample Skill Planner* in the *Reference Material*. How does your version compare? Did you miss any points?

Participant Tactics Coaching Session #2 (optional)

If time permits, you may have an opportunity to coach your practice tactics session with either fellow coaches or guest participants.

5. You will be asked to:
   - coach your activity to the participants
   - listen to some feedback from the facilitator and other coaches
   - take five minutes to complete *Self-assessment Sheet #2*
   - rejoin the group while another coach practises.
Debriefing your participant coaching session #2

6. Discuss your self-assessment with another coach. Practise being an active and effective listener when another coach is commenting on his/her performance.

7. Take a few minutes on your own and note on your Action Card anything that you learned from this practice coaching session. Be sure to note things you did well, things you need to improve, and ideas from watching others practice coach.

Tip:
The words you choose and your non-verbal communication are key indicators to participants of what you think of them. Aim to speak positively and to be mindful of their feelings and self-esteem.
Participants care a lot about what you think.
Be sure to always point out what they are doing well. Instead of leaving a lasting impression in their minds of what not to do, you will leave them with a lasting impression of what to do.
Skill Analysis & Error Correction Sheet

Skill: ____________________________________________

Observation Strategy: (Where to look, where to stand, what to watch for)

<table>
<thead>
<tr>
<th>5 phase</th>
<th>3 phase</th>
<th>Key Movements (ABCs + others)</th>
<th>Errors Observed</th>
<th>Recommended Correction</th>
</tr>
</thead>
<tbody>
<tr>
<td>Set-up</td>
<td>Set-up</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Preliminary</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Force-producing</td>
<td>Movement</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Critical Instant</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Follow-through</td>
<td>Follow-through</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Cycling Skill/Tactics Planner

*Use this sheet to plan a skill/tactic development session.*

Skill/Tactic: ___________________________________________________________

<table>
<thead>
<tr>
<th>Describe the skill/tactic:</th>
<th>Set-up and Equipment:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Teaching Points:</th>
<th>Demonstration Plan:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Progressions:</th>
<th>Activity Plan for Group:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Errors and Corrections:</th>
<th>Observation Plan:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Summary/Wrap-up:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
</tbody>
</table>

## Cycling Skill/Tactics Planner

*Use this sheet to plan a skill/tactic development session.*

### Skill/Tactic: ________________________________

<table>
<thead>
<tr>
<th>Describe the skill/tactic:</th>
<th>Set-up and Equipment:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Teaching Points:</th>
<th>Demonstration Plan:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Progressions:</th>
<th>Activity Plan for Group:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Errors and Corrections:</th>
<th>Observation Plan:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Summary/Wrap-up:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>
## Self-assessment Sheet #1

*Practice Coaching #1: Explanation, demonstration, organization, and safety*

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Selection of the activity</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The activity selected is appropriate for the age of the participant</td>
<td></td>
<td></td>
</tr>
<tr>
<td>The activity selected is appropriate for the ability of the participant</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Comments/suggestions:</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Safety before beginning the activity</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Equipment is appropriate for the age/size of the participant</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Equipment is in good repair and is properly adjusted</td>
<td></td>
<td></td>
</tr>
<tr>
<td>The playing area is checked for hazards</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Comments/suggestions:</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Explanation</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Coach is positioned such that all participants can see and distractions are minimized</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Explanation and demonstration last 90 seconds or less in total time</td>
<td></td>
<td></td>
</tr>
<tr>
<td>The purpose of the exercise/activity is clearly stated</td>
<td></td>
<td></td>
</tr>
<tr>
<td>One or two key points are emphasized (not necessarily technical aspects)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Safety points are emphasized, if appropriate</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Coach speaks clearly and loud enough for all to hear</td>
<td></td>
<td></td>
</tr>
<tr>
<td>The choice of words is appropriate for the age of the participants</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Participants are checked for understanding</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Comments/suggestions:</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Demonstration</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>All the participants can clearly see the demonstration</td>
<td></td>
<td></td>
</tr>
<tr>
<td>The speed of the demonstration allows participants to see accurately what they are to do</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Coach demonstrates in a manner that a participant would be able to perform the activity</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Coach reinforces key points while he/she demonstrates</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Participants are checked for understanding</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Comments/suggestions:</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Organization</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A sufficient area is used for the activity</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Available equipment is used optimally</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Participants are active for the majority of the time (minimum waiting in line)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Comments/suggestions:</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Safety during the activity</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>If a potentially hazardous situation presents itself, coach deals with it immediately</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Comments/suggestions:</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
## Self-assessment Sheet #2

**Practice Coaching #2: Skill progression, intervention, and communication**

### Skill progression

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>The progression for skill development is appropriate for the age/ability of the participant</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Coach focuses on the appropriate key points for the skill to be developed</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Coach adjusts the activity for more advanced and less advanced abilities within the group</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Comments/suggestions:

### Intervention

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Coach scans the entire group constantly and intervenes with a variety of participants</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Coach looks for input/feedback from the participant</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Correction or reinforcement is clear and a visual is provided</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Correction or reinforcement is brief and participant returns quickly to activity</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Coach focuses on communicating what to do (not what NOT to do)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Comments/suggestions:

### Communication

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Coach speaks in a calm tone of voice (i.e. does not yell at the participants)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Coach uses language that the participants can easily understand</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Coach refrains from the use of foul language</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Words and body language used in the correction or reinforcement are positive *</td>
<td></td>
<td></td>
</tr>
<tr>
<td>When praise is given, it is specific, not general (e.g. &quot;you are doing ___ very well. Way to go!&quot;); “Johnny, I see that you are improving at ___. Great job!”</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Coach acts and speaks with enthusiasm *</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Comments/suggestions:

*This looks like: Smiles; nods in the affirmative
*This sounds like: Cheers; “Sally, you did ___ very well. Way to go!”; “Johnny, I see that you are improving at ___. Great job!”
*This feels like: High fives; safe pats on the back; a hand shake of congratulations (use these only if the participant is clearly comfortable with physical contact from you)

### Counting interventions during the activity

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Duration of the activity in minutes (when participants are practicing, excluding explanation &amp; demo)</td>
<td></td>
</tr>
<tr>
<td>Total number of interventions with the entire group</td>
<td></td>
</tr>
<tr>
<td>Total number of interventions with individual participants</td>
<td></td>
</tr>
<tr>
<td>Total number of different participants with whom the coach intervened</td>
<td></td>
</tr>
</tbody>
</table>

Remember, more is not necessarily better. The total numbers are only to give you an indication of how often you are intervening and whether you are moving among the group or focusing only on certain participants.
Workshop Wrap-up and Evaluation

1. Take a few minutes to share ideas of what you learned and exchange contact information.

2. Please complete a workshop evaluation form; your feedback is important.

Cycling Canada and the National Coaching Certification Program thank you for the time you dedicate to coaching. Your efforts make a difference in the lives of those you coach. Congratulations on completing the workshop!
Workshop Evaluation – Coaches
READY TO RACE! BMX SKILLS & TACTICS WORKSHOP

Date of Workshop: ____________________ Location: ____________________

Please fill in the form and hand it to the facilitators before you leave. Your comments are important to the ongoing development of the National Coaching Certification Program.

Please tell us a bit about your coaching:

What age of participants will you be coaching? ____________________

How many participants will you be coaching? ____________________

How long is their competitive season? ____________________

How many times a week do they compete? ____________________

How many times a week do they practice? ____________________

How long are the practices (in hours/minutes)? ____________________

Have you coached before? If so, for how long, with what age group, and in what sport?

Please answer the following:

Having taken this workshop, I now have a better understanding of my tasks and responsibilities as a coach

1 2 3 4 5
Strongly disagree Strongly agree

Having taken this workshop, I now have a clear understanding of how the sport is modified for different levels or stages of athlete

1 2 3 4 5
Strongly disagree Strongly agree

I can respond to an ethical situation in a way that is consistent with the NCCP values and philosophy

1 2 3 4 5
Strongly disagree Strongly agree

NEXT ...
I can adapt a practice if required to do so, and understand the structure of a complete practice

1 2 3 4 5
Strongly disagree  Strongly agree

I can organize and run the activities within a practice in a way that is suitable for my athletes

1 2 3 4 5
Strongly disagree  Strongly agree

I can deal with the safety aspects of a practice

1 2 3 4 5
Strongly disagree  Strongly agree

I can do a better coaching job as a coach

1 2 3 4 5
Strongly disagree  Strongly agree

During this workshop I had several opportunities to work on finding solutions to situations that are relevant to my coaching

1 2 3 4 5
Strongly disagree  Strongly agree

During this workshop I had several opportunities to exchange with and learn from others

1 2 3 4 5
Strongly disagree  Strongly agree

I found the Workbook, Reference Material, and Portfolio to be relevant to my coaching needs, clear, and to contain useful information

1 2 3 4 5
Strongly disagree  Strongly agree

I found the Workbook, Reference Material, and Portfolio to be organized clearly and logically and easy to use

1 2 3 4 5
Strongly disagree  Strongly agree

I would recommend this workshop to other coaches I know

1 2 3 4 5
Strongly disagree  Strongly agree
Please answer the following questions:

Would there be anything you would like to see added to this workshop? If so, what would it be?

Would you be interested in attending another workshop for coaches? If so, what would you like to see included in the next workshop you attend?

Are there any other comments you wish to add?

Thank you for your feedback, and best wishes in your coaching
Ready to Race!
Introduction to competition
BMX Skills and Tactics
Reference Material
## Contents

**Ready to Race BMX Skills & Tactics Reference Material**

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  Page 6
- Emergency Action Plan (EAP)  
  Page 8
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  Page 13
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  Page 15
- Basic Cycling Position  
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- Tips for Coaching Cornering  
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  Page 73
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THE BASICS
Coaching Athletes With a Disability

First Contact

When coaching athletes with a disability (AWAD), “first contact” usually refers to the first time an athlete encounters a sport, or has an opportunity to try a sport. It is important to understand that “first contact” works both ways—when the athlete meets the sport and coach, and when the coach meets the athletes. In this section we will look at both sides of “first contact”.

First Reactions

For both coach and athlete, first contact may bring apprehension or fear. The athlete may be asking: “Can I do this? Will I be accepted?” The coach may be asking the very same questions. The first time meeting and working with AWAD, the coach may wonder what the athletes are capable of doing, and in the case of athletes with an intellectual disability, what they are capable of understanding. Lack of knowledge about disability may lead the coach to make wrong assumptions; sometimes a motor control or speech impairment may lead the coach to think the athlete has an intellectual or learning impairment, when this is not the case. When people meet, there is always the possibility of an awkward moment. In the case of AWAD, lack of understanding by the coach, or the concern of spectators or parents of the athletes, may make the moment of first contact seem even more awkward.

Coaches need to remember that these are boys, girls, women and men who just want to participate in sport. When coming into an established program the coach should:

- Be open and honest, especially if he/she has not worked with AWAD before;
- Avoid assumptions about what the athletes can and cannot do;
- Ask questions, of the athletes and other coaches;
- Assess the ability of athletes much as he/she would assess any other athlete.

When starting a new program, or welcoming a new athlete, the coach should remember that the athletes may share the same worries. It can take more courage for an athlete with a disability to try a new sport. A negative first contact may mean the potential athlete is lost to the sport forever. So,

- Talk with the athlete and learn about them—what their mobility or other restrictions are, and how they feel about trying the sport for the first time;
- Talk with the other athletes on the team or in the group, introducing the new athlete;
- Remember that an athlete with a disability wants to be treated with respect. They may not want to receive any special attention or help. If they do want something, they will ask;
• Set the new athlete up to succeed, by choosing appropriate activities, pairing them with a more experienced athlete, and offering honest praise for a good effort;
• Emphasize that everyone has a right to participate. Don’t let the new athlete worry that they are holding things back or slowing the group down.

**Understanding Disability**

An excellent resource to help coaches learn more about working with AWAD is *Coaching Athletes With a Disability*, from Coaching Association of Canada. Much of the information in this section is drawn from that resource.

The different types of disabilities are grouped into broad categories such as mobility impairment, sensory impairment, and intellectual impairment. Disabilities are either congenital (i.e., present at birth) or acquired (i.e., not present at birth, but acquired through a traumatic injury or an illness). Basic information, including specific safety considerations and recommendations to coaches, is presented in *Coaching Athletes With a Disability*.

For the coach, it can be important to know whether a disability was acquired or congenital. A person who acquired a disability in an accident may possess skills from previous sport experience and may know about training but now need to relearn some skills. Someone born with a disability has typically adjusted to how his or her body operates; however, sport opportunities may have been limited, and as a result some motor or sport-specific skills may be delayed.

Persons with a disability have usually gone through rehabilitation or therapy during which they have provided their life story on numerous occasions to nurses, doctors, and others. Sharing personal information about their disability is generally not an issue. The coach can ask specific questions about whether or how the disability affects balance, movements, etc.

Behavioural patterns may differ greatly amongst persons with an intellectual disability. Assessment methods are available to help coaches identify the situations that may cause changes in behaviour, and information is available on specific strategies to effectively manage these situations.

Some athletes with a disability may also need medication. Generally, the medication issues for people with a disability are the same as with able-bodied people. For example, medication may be required for diabetes, asthma, a heart condition, seizures, or some other health-related problem.

Initially, the person with a disability (or, in the case of young children, a parent) is the best judge of what the individual can or cannot do on the playing field. The best way to get these answers is to ask.
Some athletes with an intellectual disability can easily explain their needs and objectives to a coach, while others may not be as verbal or as clear. Therefore, it may be essential for a coach to talk to a parent or guardian to learn more about the disability.

Communications

Good communications between coaches and athletes or parents is essential in any sport. When working with AWAD, there are a few additional factors to be aware of.

- AWAD, especially those with congenital disability, participating for the first time may have less sport background than able-bodied athletes of the same age. They may not be as familiar with certain terms or expressions used by coaches as other athletes.
- Overprotective parents are more common. Parents may have particular concerns about safety, access, or integration. While these concerns may have some validity, it is important to position sport participation as a means to athlete development and self-sufficiency. Just as for able-bodied athletes, sport helps people grow and develop confidence. Work closely with parents to help relieve their concerns.

The manual *Coaching Athletes with a Disability* offers these “Do’s and Don’ts”:

- Do not be scared to ask questions
- Ensure equal treatment
- Do not assume that athletes with an intellectual disability do not understand
- Have a well-structured practice plan and use a progressive approach with athletes that have an intellectual disability
- Sit down when talking to a person in a wheelchair
- Ask permission before touching a wheelchair, crutches or walker.

At first contact, an open welcoming attitude, willingness to ask and answer questions, extra time dealing with parental concerns if raised, and an effort to see beyond the disability will help get both coach and athlete off to a great start!
Analyzing Cycling Events

The essence of a cycling race is to take the shortest time to cover a distance. Of course this requires many different capacities: physical capacities to accelerate and sustain speed, motor and mental capacities to perform movement skills such as turning or jumping, and mental capacities to implement tactics or overcome anxiety. To be successful a cyclist must develop each of these capacities to a high degree. To help in the development process, the coach must be able to analyze both the requirements of the event and the athlete’s current capacities in order to prescribe a training and competition program that will improve performance.

The Key Performance Factors for cycling can be grouped into Physical Performance Factors, Motor Performance Factors, and Mental Performance Factors.

Physical Performance Factors

Four S’s (Stamina, Strength, Speed, Suppleness) presented in Long-Term Athlete Development (LTAD) are factors related to the physical capacity of the body. Often coaches divide these factors into more precise categories based on body function.

<table>
<thead>
<tr>
<th>LTAD “S’s”</th>
<th>Key Performance Factors</th>
<th>Physiology &amp; Energy System Terms</th>
</tr>
</thead>
<tbody>
<tr>
<td>Suppleness</td>
<td>Flexibility</td>
<td>Flexibility</td>
</tr>
<tr>
<td>Strength</td>
<td>Maximum Strength</td>
<td>Muscular Strength</td>
</tr>
<tr>
<td></td>
<td>Speed-Strength</td>
<td>Muscular Power</td>
</tr>
<tr>
<td></td>
<td>Strength-Endurance</td>
<td>Muscular Endurance</td>
</tr>
<tr>
<td>Speed</td>
<td>Maximum Speed</td>
<td>Anaerobic Alactic System</td>
</tr>
<tr>
<td></td>
<td>Speed-Endurance</td>
<td>Anaerobic Lactic System</td>
</tr>
<tr>
<td>Stamina</td>
<td>Aerobic Power</td>
<td>Maximal Aerobic Power (VO₂ max)</td>
</tr>
<tr>
<td></td>
<td>Aerobic Endurance</td>
<td>Anaerobic Threshold</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Aerobic Endurance</td>
</tr>
</tbody>
</table>

Motor Performance Factors

Motor skills, which include balance, coordination, and agility, are complex and depend on the brain’s ability to orient the body and its movements as well as the ability of nerves and muscles to carry out the commands. Patterns of coordinated motor movements are grouped into skills, which are refined and remembered.

Mental Performance Factors

There are many mental skills in sport, including decision-making, goal-setting, attentional control (focusing) and emotional control (for example, calming anxiety or getting “pumped up”). At different times, cycling requires athletes to be deciding on how to use skills, for example, which line to take though a bend, or how to respond to a tactical situation, for example whether to make an all-out effort to catch a competitor or
to wait for a later moment in the race. Decision-making can be impaired if the athlete is too distracted, excited or fearful.

**Analyzing Events Using the Key Performance Factors**

Different cycling events or disciplines place more or less emphasis on the different key performance factors. The main differences between events are:

**Duration**: Events that take less time to complete are usually more intense, meaning they require higher power outputs. Physically that means more reliance on speed and strength.

**Terrain**: Events that require climbing require more power to climb quickly. Rough terrain, technical descents, and turns also require a higher degree of bike-handling skill, as well as acceleration after each terrain feature.

The following table is a simple, subjective analysis of the demands of cycling events:

<table>
<thead>
<tr>
<th>Performance Factor</th>
<th>BMX</th>
<th>MTB-XC (30 km)</th>
<th>Road (50 km mass-start)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Physical Performance Factors</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Maximal Speed</td>
<td>5</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>Speed-Endurance</td>
<td>4</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Aerobic Endurance</td>
<td>1</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>Aerobic Power</td>
<td>2</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>Maximum Strength</td>
<td>3</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>Speed-Strength</td>
<td>4</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>Strength-Endurance</td>
<td>1</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Flexibility</td>
<td>3</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td><strong>Motor and Skill Performance Factors</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Coordination</td>
<td>4</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>Balance</td>
<td>4</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>Agility</td>
<td>4</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>Basic Skill Techniques</td>
<td>5</td>
<td>5</td>
<td>4</td>
</tr>
<tr>
<td>Variations of Basic Techniques</td>
<td>5</td>
<td>5</td>
<td>4</td>
</tr>
<tr>
<td>Advanced Skill Techniques</td>
<td>5</td>
<td>5</td>
<td>4</td>
</tr>
<tr>
<td><strong>Mental Performance Factors</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Goal-setting</td>
<td>4</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>Decision-Making</td>
<td>5</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Attention control (focus)</td>
<td>5</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>Emotional control</td>
<td>5</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>Tactics &amp; Strategy (Competition Plan)</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>
Emergency Action Plan (EAP)

An Emergency Action Plan (EAP) is a plan designed by coaches to assist them in responding to emergency situations. The idea behind having such a plan prepared in advance is that it will help you respond in a responsible and clear-headed way if an emergency occurs.

An EAP should be prepared for the facility or site where you normally hold practices and for any facility or site where you regularly host competitions. For away competitions, ask the host team or host facility for a copy of their EAP.

An EAP can be simple or elaborate should cover the following items:

1. Designate in advance who is in charge in the event of an emergency (this may very well be you).
2. Have a cell phone with you and make sure the battery is fully charged. If this is not possible, find out exactly where a telephone that you can use is located. Have spare change in the event you need to use a pay phone.
3. Have emergency telephone numbers with you (facility manager, fire, police, ambulance) as well as contact numbers (parents/guardians, next of kin, family doctor) for the participants.
4. Have on hand a medical profile for each participant, so that this information can be provided to emergency medical personnel. Include in this profile a signed consent from the parent/guardian to authorize medical treatment in an emergency.
5. Prepare directions to provide Emergency Medical Services (EMS) to enable them to reach the site as rapidly as possible. You may want to include information such as the closest major intersection, one way streets, or major landmarks.
6. Have a first aid kit accessible and properly stocked at all times (all coaches are strongly encouraged to pursue first aid training).
7. Designate in advance a “call person” (the person who makes contact with medical authorities and otherwise assists the person in charge). Be sure that your call person can give emergency vehicles precise instructions to reach your facility or site.

When an injury occurs, an EAP should be activated immediately if the injured person:

- is not breathing
- does not have a pulse
- is bleeding profusely
- has impaired consciousness
- has injured the back, neck or head
- has a visible major trauma to a limb
Emergency Action Plan Checklist

<table>
<thead>
<tr>
<th>Access to telephones</th>
</tr>
</thead>
<tbody>
<tr>
<td>——— Cell phone, battery well charged</td>
</tr>
<tr>
<td>——— Training venues</td>
</tr>
<tr>
<td>——— Home venues</td>
</tr>
<tr>
<td>——— Away venues</td>
</tr>
<tr>
<td>——— List of emergency phone numbers (home competitions)</td>
</tr>
<tr>
<td>——— List of emergency numbers (away competitions)</td>
</tr>
<tr>
<td>——— Change available to make phone calls from a pay phone</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Directions to access the site</th>
</tr>
</thead>
<tbody>
<tr>
<td>——— Accurate directions to the site (practice)</td>
</tr>
<tr>
<td>——— Accurate directions to the site (home competitions)</td>
</tr>
<tr>
<td>——— Accurate directions to the site (away competitions)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Participant information</th>
</tr>
</thead>
<tbody>
<tr>
<td>——— Personal profile forms</td>
</tr>
<tr>
<td>——— Emergency contacts</td>
</tr>
<tr>
<td>——— Medical profiles</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Personnel information</th>
</tr>
</thead>
<tbody>
<tr>
<td>——— The person in charge is identified</td>
</tr>
<tr>
<td>——— The call person is identified</td>
</tr>
<tr>
<td>——— Assistants (charge and call persons) are identified</td>
</tr>
</tbody>
</table>

- The medical profile of each participant should be up to date and located in the first aid kit.
- A first aid kit must be accessible at all times, and must be checked regularly. See the appendices for suggestions on contents for a first-aid kit.
Sample Emergency Action Plan (p.1 of 2)

Contact Information

Attach the medical profile for each participant and for all members of the coaching staff, as well as sufficient change to make several phone calls if necessary. The EAP should be printed two-sided, on a single sheet of paper.

Emergency phone numbers: 9-1-1 for all emergencies
Cell phone number of coach: (xxx) xxx-xxxx
Cell phone number of assistant coach: (xxx) xxx-xxxx

Phone number of home facility: (xxx) xxx-xxxx

Address of home facility: Algonquin Municipal Park
123 Park Lane,
between Chestnut St. and Poplar St.
City, Province/Territory  XXX XXX

Address of nearest hospital: Mercy General Hospital
1234 Queen Elizabeth Drive
City, Province/ Territory  XXX XXX

Charge person (1st option): Suzy Chalmers (coach)
Charge person (2nd option): Joey Lemieux (assistant coach)
Charge person (3rd option): Angela Stevens (parent, nurse, usually on site)

Call person (1st option): Brad MacKenzie (parent, cell xxx-xxxx)
Call person (2nd option): Sheila Stevens (parent, cell xxx-xxxx)
Call person (3rd option): Stefano Martinez (parent, cell xxx-xxxx)

Directions to Mercy General Hospital from Algonquin Municipal Park:
Roles and responsibilities

Charge person

- Clear the risk of further harm to the injured person by securing the area and shelter the injured person from the elements
- Designate who is in charge of the other participants
- Protect yourself (wears gloves if he/she is in contact with body fluids such as blood)
- Assess ABCs (checks that airway is clear, breathing is present, a pulse is present, and there is no major bleeding)
- Wait by the injured person until EMS arrives and the injured person is transported
- Fill in an accident report form

Call person

- Call for emergency help
- Provide all necessary information to dispatch (e.g. facility location, nature of injury, what, if any, first aid has been done)
- Clear any traffic from the entrance/access road before ambulance arrives
- Wait by the driveway entrance to the facility to direct the ambulance when it arrives
- Call the emergency contact person listed on the injured person’s medical profile
Steps To Follow When An Injury Occurs

Note: it is suggested that emergency situations be simulated during practice in order to familiarize coaches and athletes with the steps below.

Step 1: Control the environment so that no further harm occurs
- Stop all participants
- Protect yourself if you suspect bleeding (put on gloves)
- If outdoors, shelter the injured participant from the elements and from any traffic

Step 2: Do a first assessment of the situation
If the participant:
- is not breathing
- does not have a pulse
- is bleeding profusely
- has impaired consciousness
- has injured the back, neck or head
- has a visible major trauma to a limb
- Cannot move his/her arms or legs or has lost feeling in them

If the participant does not show the signs above, proceed to Step 3

Step 3: Do a second assessment of the situation
- Gather the facts by asking the injured participant as well as anyone who witnessed the incident
- Stay with the injured participant and try to calm him/her; your tone of voice and body language are critical
- If possible, have the participant move himself/herself off the playing surface. Do not attempt to move an injured participant.

Step 4: Assess the injury
Have someone with first aid training complete an assessment of the injury and decide how to proceed.
If the person trained in first aid is not sure of the severity of the injury or there is no one available who has first aid training, activate EAP. If the assessor is sure the injury is minor, proceed to step 5.

Step 5: Control the return to activity
Allow a participant to return to activity after a minor injury only if there is no:
- Swelling
- Deformity
- Continued bleeding
- Reduced range of motion
- Pain when using the injured part

Step 6: Record the injury on an accident report form and inform the parents
Coach Liability

Introduction

More than ever before, coaches are aware of the risks and responsibilities they assume when they coach. These risks and responsibilities include those that are legal in nature. No matter what their certification, experience, employment or volunteer status, sport discipline, or location of residence, coaches at all times have a legal obligation to provide a safe environment for participants.

To understand this obligation more fully, the coach must understand some key legal principles including negligence and liability. In order to fulfill this obligation, the coach must also understand concepts and techniques related to risk management. With this knowledge, the coach can determine the applicable standard of care, can assess his or her own coaching situation for risks, and can put in place appropriate measures to manage these risks.

These three topics – negligence, liability, and risk management – are discussed below. This section concludes with a ten-point “personal risk management plan.”

Negligence

Negligence is a legal term with precise legal meaning. The term relates to standards of behaviour that the law expects, and understanding the law of negligence is an essential first step in learning how to provide a safe environment for participants.

In general terms, negligence refers to behaviour or action that falls below a “reasonable standard of care.” The law in Canada demands that we behave in a particular way so that others who might be affected by our actions are not exposed to an unreasonable risk of harm. The standard of behaviour the coach is expected to meet is what is termed an “objective” standard. As adults and as coaches, we are all credited with the same general intelligence and sensibility, and thus the law expects each of us to behave in a reasonable fashion when confronted with similar circumstances.

The law does not expect a coach to be perfect in his or her behaviour, only that the coach be reasonable and act as other reasonable coaches would act in the same circumstances.
It is widely accepted that there is a certain amount of risk in many sport activities and that such risk is knowable, foreseeable, acceptable, and, depending on the sport, even desirable. What is unacceptable in sport is behaviour that places participants in a situation of unreasonable risk or danger.

A coach’s conduct is negligent when all four of the following conditions occur:

- a duty of care exists (such as that which exists between a coach and a participant)
- that duty imposes a standard of care that is not met by the coach
- a participant, or other person, experiences harm
- the failure to meet the standard can be shown to have caused or substantially contributed to the harm.

For the coach, the “standard of care” is the most important of the above elements. The standard of care is what the coach should do in a given situation. Standard of care is difficult to define precisely because it is influenced by the risk inherent in the surrounding circumstances. Thus, the duty to act responsibly remains constant, but the specific behaviour required to fulfil that duty will change with the circumstances.

To determine what the standard of care is in any given circumstance involves looking to four sources:

- **Written standards** – these are government regulations, equipment standards, rules for a particular sport or facility, rules from a sport governing body, coaching standards and codes of conduct, and other internal risk management policies and procedures.

- **Unwritten standards** – these are norms or conventions in a sport, an organization, or a facility that might not be written down, but are nonetheless known, accepted, and followed.

- **Case law** – these are court decisions about similar situations. Where the circumstances are the same or similar, judges must apply legal principles in the same or similar ways. Earlier decisions of the court are a guide, or precedent, for future decisions where the facts are similar.

- **Common sense** – this means simply doing what feels right, or avoiding doing what feels wrong. Common sense is the sum of a person’s knowledge and experience. Trusting one’s common sense is a good practice.

The responsible and prudent coach is familiar with written policies that govern him/her, is aware of unwritten norms and practices, knows something of the case law as it applies to coaches, and has learned to trust his/her intuitive judgment and common sense.
Liability

Where all four conditions of the legal definition of negligence have been met, negligence of the coach may be established. What follows then is the question of liability. While negligence refers to *conduct*, liability refers to the *responsibility* for consequences of negligent conduct. Responsibility may lie with the coach who was negligent, or with another person or entity entirely.

For example, an insurance policy transfers the financial liability for negligence to an insurance company. A valid waiver of liability agreement might eliminate liability entirely. An injured participant may be partially responsible for his or her injuries and thus may share liability with the negligent coach. And a sport organization may be vicariously liable for the negligent actions of its coach, whether he or she is an employee or a volunteer.

Liability can also refer to responsibility for the consequences of conduct that fails to meet a predetermined legal standard other than the standard of care in a negligence situation. In addition to the liability that can arise from negligence, liability can also arise when a law is broken or when a contract is breached. The prudent coach ensures that these types of liability are avoided by adhering to laws and complying with contractual agreements.

In summary, an understanding of the legal meaning of *negligence* answers the coach’s question: How does the law expect me to behave? The follow-up question is: How can I be sure that my behaviour will meet this expectation? The answer to this question lies in *risk management*. 
Risk management

Risk management is defined as “reducing the chances of injury or loss by taking steps to identify, measure, and control risks.” This means that the coach spends time thinking about potentially risky situations, decides which situations might pose serious risks, and determines what practical steps he/she can take to minimize those risks. The common ingredient in all these tasks is common sense.

There are four strategies for controlling risks, all of which are important to the coach:

- **Retain the risk** – the risk is minor and it is inherent in the sport activity, and the coach is willing to accept the consequences, so he/she does nothing about the risk. In sport, this is often a legitimate risk-management strategy.

- **Reduce the risk** – the risk is moderately significant and the coach takes measures to reduce the likelihood of the risk occurring, or the consequences if it does occur, through careful planning and supervision and education of participants.

- **Transfer the risk** – the risk is significant and it is transferred to others through contracts, including waivers and insurance.

- **Avoid the risk** – the risk is severe and the coach decides to avoid whatever may cause the risk.

A word of caution for coaches: there is no template, formula, or checklist for managing risk. The law expects coaches to provide a safe environment for participants, but what that means for a coach’s conduct will vary with the circumstances, including the age and skill level of participants and the environment in which the coaching activity occurs.
The coach’s personal risk management plan

The informed and prudent coach protects himself/herself by implementing a personal risk management plan. This plan helps the coach on two fronts: first, it will promote a safe program and help to prevent injuries from occurring, and second, when an injury cannot be prevented, it will help to protect the coach from liability claims.

Coaches can, and should, practice their own personal risk management by following this ten-point plan:

1. Be familiar with and adhere to applicable standards, both written and unwritten, as well as internal policies and rules governing the facility, the sport, and your program.

2. Monitor your participants’ fitness and skill levels, and teach new skills in a progressive fashion suitable to their age and skills. Never leave young participants unsupervised.

3. If you do not have access to medical personnel or a qualified trainer, keep adequate first aid supplies on hand; ideally, you should be trained in administering first aid.

4. Develop an Emergency Action Plan for the facility or site where you regularly hold practices or competitions. Carry with you, at all times, emergency contact numbers and participants’ medical profiles.

5. Inspect facilities and equipment before every practice and competition and take steps to ensure deficiencies are corrected immediately, or adjust your activities accordingly to avoid the risk.

6. Work with your employer or sport organization to use appropriately worded “assumption of risk” agreements in your programs and, where appropriate, in settings involving adult participants, “waiver of liability” agreements.

7. You should be covered by the liability insurance policy of your employer (if you are remunerated for your coaching services) or your organization (if you are a volunteer coach). Confirm that this is the case. If it is not, obtain your own insurance.

8. Do not be afraid to stop or withdraw from any activity that poses unreasonable risks, including stopping a practice or removing your team or your participants from a competition.

9. Trust your common sense and intuition!

10. Actively pursue your own training, professional development, and coaching certification.

NB: Legal Questions And Answers (FAQ) on liability are provided in the appendices.
Bike Safety Checklist

Participant ______________________________

*This checklist should be taken into your local bike shop. The bike shop should perform a safety check on the bike to ensure it is safe and in proper working order. This check should minimize time spent on repairs, and optimize riding time. There will be charges for necessary repairs.*

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</tbody>
</table>

Handlebar, stem, seat, seat post, pedals, cranks and important bolts are all tight.

Gears shift smoothly, derailleurs, cables and housing in sound working condition, levers tight, limit screws properly adjusted.

Brakes work properly, levers, cables and housing, pads in good working order and condition.

Wheels are reasonably true with no broken or loose spokes.

Frame and fork are not bent, cracked, or otherwise seriously misaligned.

Bearings in headset, bottom bracket, cones in hubs, are not excessively loose or in need of urgent repair.

Tires are not seriously worn, torn, cracked, cut, or in need of replacement.

Wheel nuts and/or quick releases are properly installed and tight.

Bell, rear and front reflector/lights are in working order.

Mechanic Recommendations:

________________________________________________________________________

________________________________________________________________________

Mechanic Name: ___________________ Date: ___________ Shop: ___________________

*This Bike check is meant to only be a preventative inspection. Neither the bike shop nor the coach are responsible for the state of each participant’s bicycle. It is the full responsibility of each participant to ensure that their bicycle is properly maintained and safe. Please take your bicycle into the bike shop as soon as possible, as you may need to leave it there for a few days (bike shops tend to be busiest during nice weather). This form must be returned completed at the first session.*
Basic Cycling Position

Road

The seat is high for long-distance pedaling efficiency, and the trunk is low for aerodynamics. The head is up and elbows flexed. The ball of foot is over the pedal axle.

Priorities: Comfort and efficiency over distance

Mountain Bike

MTB position is between BMX and road. The seat is high for long-distance pedaling efficiency, but can be lowered for skill events. The trunk is high, head up, elbows flexed.

Priorities: Comfort and efficiency over distance, agility and absorbing shock.

BMX

BMX position is designed for maximum agility. The seat is low, the trunk is high, the head up, and elbows flexed. If flat pedals are used the mid-foot is over the pedal axle, with cleats the ball of the foot is over the axle.

Priorities: Short term speed, agility and absorbing shock.
Cycling Skill Development Model

The model on the next page shows an approach to building basic cycling skills. This brief explanation will help you use the model in your coaching. See glossary for terms.

- The first step in developing cycling skills are the ABCs: Attention, Balance and Control. These form a foundation for more advanced skills. Each of the ABCs can be broken down into various parts. Understanding the ABCs allows the coach to instruct skills from the building blocks on up, to analyze movements and detect and correct fundamental errors, and to plan effective skill progressions.

- When analyzing a cycling skill, always look for the ABCs first. Every skill is based on some combination of A, B and C in the set-up and initiation of the skill. If there are problems with these basics, the cyclist will not be able to build more advanced skills.

- The ABCs can be put together, or integrated, into more complex skills: Power, Agility, and Spatial Sense skills (P.A.S.S.). For example, an Agility skill like Limbo (ducking under an obstacle) requires the cyclist to pay Attention and adjust his/her speed and path; to use Balance by shifting weight; and to Control by braking, steering, and pedaling in preparation for the obstacle.

- Ready position has special importance. In ready position, the cyclist has knees and elbows slightly flexed, fingers on the brake levers, and is attentive to upcoming conditions. He or she is ready to react. One objective of building good ABCs is to prepare the rider for Ready Position which in turn is a starting point for many P.A.S.S. skills.

- In general, skills are integrated into new more complex skills, from left to right on the model diagram. Within each box, there is also a progression from top to bottom, with more challenging skills at the bottom (for example, Control – Brake goes from one front brake at top to combined, modulated braking in slippery conditions at the bottom).
The ABCs: Basic Body Movements

P.A.S.S.: Integrated Skills

Attention:
- Looking
- Identifying
- Reacting

Balance:
- Simple Riding & Coasting
- Straight-line Riding
- Balanced Position
- Weight Transfer F, R, Side
- Ready Position
- Weighting & Unweighting
- Narrow-platform Riding
- Track Stand

Control:
- PEDAL
  - Sitting
  - Soft
  - Standing
  - Kick
  - Ratchet
- BRAKE
  - Front
  - Rear
  - Combined
  - Modulate
  - Slippery
- GEAR
  - Rear
  - Front
- TURN & CORNER
  - Medium
  - Fast
  - Slow
  - Tight

P.A.S.S. Skills - Built From ABCs

Power:
- CLIMB
  - Sitting
  - Standing
  - Crouching
- ACCELERATE
  - Sitting
  - Standing
  - Standing start
  - Gate start
  - Sprinting

Agility:
- DESCEND
  - Sitting
  - Standing
- DROP
  - Standard Huck
- LIFT
  - Front
  - 2 Wheel Rear
  - Dolphin
  - Manual Side
  - Wheelie
- MOUNT & DISMOUNT
  - Straddle on
  - Straddle off
  - Cowboy on Bails
  - Carry
  - Safe Fall

Spatial Sense:
- GROUP
  - Follow
  - Draft
  - Pass
  - Pack
  - Bump
  - Buzz
  - Echelon
- TRAFFIC
  - Laws
  - Signal
  - Shoulder check
  - Position
  - Anticipate

A Cycling Skills Model

Increased Challenge

Increased Challenge
Skill Analysis: Cycling Skills

The following chart shows key movements to accomplish the cycling skills covered in Community Cycling- Initiation. The skills are grouped according to the Skills Model into ABCs and P.A.S.S., and broken down using either a three- or five phase analysis: Set-up, Preliminary Movement, Force-producing Movements, Critical Instant and Follow-through, or in three-phase analysis, Set-up, Movement, Follow-through. This method of analysis is used in many sports.

- **Set-up:** Decision and preparation for executing the skill, usually a combination of Attention, Balance and Control (ABC) movements.

- **Preliminary Movements:** The first movements of the skill itself, often a narrowing of Attention along with a new combination of Balance and Control movements.

- **Force-producing Movements:** Typically this is a combination of Balance movements such as weighting, unweighting, and weight transfer needed to execute the skill. These movements are often rapid, powerful and coordinated and therefore can be difficult to observe or separate.

- **Critical Instant:** The force-producing movements combine to achieve the objective of the skill. The moment when the success of the skill can be seen.

- **Follow-through:** The final movements, usually a combination of Attention, Balance and Control, needed to complete the skill and transition to a new skill. This may overlap the Set-up phase of a new skill.

In a three-phase skill, Preliminary Movements, Force-producing Movement and Critical Instant merge together into a Movement Phase. This is true for continuous skills.

For example, here are the five phases of a Standing Acceleration:

<table>
<thead>
<tr>
<th>Set-up</th>
<th>Preliminary</th>
<th>Force-producing</th>
<th>Critical Instant</th>
<th>Follow-through</th>
</tr>
</thead>
<tbody>
<tr>
<td>Identify/react A</td>
<td>Weight transfer forward &amp; unweighting (stand up) B</td>
<td>Pedaling C</td>
<td>Acceleration to desired speed</td>
<td>Continue pedaling C at new speed</td>
</tr>
<tr>
<td>Change gearing if needed C</td>
<td></td>
<td>Rhythmic weight transfer to counter-balance aggressive pedaling B</td>
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</tbody>
</table>

A= Attention B= Balance C= Control

Sometimes, especially for the basic ABC movements themselves, there are fewer phases or the Preliminary and Force-producing phases merge.

Use an observation plan to spot these phases during skill execution. This allows you to identify errors and suggest corrections. It is also the basis of building skill progressions- the development of increasingly challenging variations on the basic skills.
## Cycling Skill Analysis Chart

<table>
<thead>
<tr>
<th>Skill Group</th>
<th>Skill</th>
<th>Set-up</th>
<th>Preliminary Movement Phase (execution)</th>
<th>Force-producing</th>
<th>Critical Instant</th>
<th>Follow-through</th>
</tr>
</thead>
</table>
| Note: A= Attention B= Balance C= Control | Ready Position | | - Look/Identify A  
- Balanced position B | - Flex elbows and knees slightly from balanced position (move to ready position)  
- Weight centered  
- Fingers on brakes | | - Maintain or initiate new skill from ready position |
| Balance | Balance Narrow-platform riding | | - Look/Identify A  
- Balanced position B  
- Brake or pedal to adjust speed C | - Move to ready position  
- Weight transfer side to side as needed  
- Balance maintained | | - Ride off platform in ready position  
- Maintain or initiate new skill from ready position |
| Control | Brake Combined | | - Look/Identify/React A  
- Move to ready position | - Apply front and rear brakes together and simultaneously,  
- Weight transfer to rear  
- Slows to desired speed or stop by target point | | - Move to balanced position; resume pedaling  
- If stop, straddle |
| Control | Turn Medium Speed | | - Look/Identify/React A  
- React-choose appropriate line A  
- Balanced position B  
- Inside pedal is up C | - Initiate turn with slight handlebar turn and bike lean B+C  
- Body upright, balanced over outside (low) pedal  
- “Push outside pedal down” cue  
- Hits correct line, speed maintained | | - Move to balanced position; resume normal pedaling  
- Maintain or initiate new skill |
| Control | Turn Slow or Tight | | - Look/Identify/React A  
- React-choose line, spot obstacles A  
- Move to ready position B  
- Brake as needed to modulate speed C | - Look across turn (line)- turn head as needed A  
- Weight transfer side to side as needed to maintain balance B  
- Light rear brake and move pedals as needed to regulate speed (pedal, coast or ratchet) C  
- Balance maintained  
- Hits correct line | | - Move to balanced position; resume normal pedaling  
- Maintain or initiate new skill |
| Power | Climb Sitting | | - Look/Identify/React A  
- React-choose appropriate line A  
- Change gear as needed C | - Weight transfer forward to maintain balanced position B  
- Continue pedaling C | - Pedal while maintaining forward weight distribution C | - Climb completed with minimal loss of speed  
- Resume normal pedaling  
- Maintain or initiate new skill |
<table>
<thead>
<tr>
<th><strong>Power</strong></th>
<th><strong>Climb Standing</strong></th>
<th><strong>Power</strong></th>
<th><strong>Climb Crouching</strong></th>
<th><strong>Power</strong></th>
<th><strong>Accelerate Standing</strong></th>
<th><strong>Agility</strong></th>
<th><strong>Descend</strong></th>
<th><strong>Agility</strong></th>
<th><strong>Move Limbo</strong></th>
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<td>• Look/Identify/</td>
<td>• Look/Identify/</td>
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<td>• Look at path (line)- turn head as needed A</td>
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<td>React- choose</td>
<td>React- choose</td>
<td>Balanced position B</td>
<td>React- choose</td>
<td>• Weight transfer back (more for steeper descent) B</td>
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<td>Change gearing if</td>
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<td>gear A</td>
<td>needed C</td>
<td>speed A</td>
<td>• Pedals in level position C</td>
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<td>• Change gear as</td>
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<td>• Weight transfer</td>
<td>• Coasts, pedals in neutral position B</td>
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<td>needed C</td>
<td>needed C</td>
<td>forward &amp; stand B</td>
<td>• Lower trunk over handlebars; push butt back off seat to further lower</td>
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<td>• Pedal C</td>
<td>trunk if needed for very low clearance B</td>
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<td>• Rhythmic weight transfer to counter-</td>
<td>• Duck head just at critical instant</td>
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<td>balance aggressive pedaling (push/pull on bars) B+C</td>
<td>• Pass under obstacle; speed maintained</td>
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<td>• Return to sitting neutral position at new speed</td>
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<tr>
<td>Agility</td>
<td>Move</td>
<td>Pick Up &amp; Drop</td>
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</table>
|        |      | • Look/Identify/React- choose appropriate line, speed A  
|        |      | • Brake if needed C  
|        |      | • Take one hand off handlebars;  
|        |      | • Maintain balanced weight/balance B  
|        |      | • Grasp, lift object (bottle)  
|        |      | • Lower object & weight transfer to side to counter-balance  
|        |      | • Return hand to handlebars  
|        |      | • Continue pedaling  
|        |      | • Return to balanced position  

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<thead>
<tr>
<th>Agility</th>
<th>Drop-off</th>
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</table>
|        | Look/Identify/React- choose appropriate line, speed A  
|        | Brake if needed to walking speed C  
|        | Move to ready position  
|        | Brake and look over edge of drop, pedals level; decide to drop B+C.  
|        | Transfer weight back and extend arms, trunk low to bike ("push")  
|        | Coast over drop-off B+C  
|        | Ride drop-off; balance maintained  
|        | Front wheel "hits" bottom; absorb shock with knees and elbows (weight transfers forward)  
|        | Extend elbows to return to ready position  
|        | Resume pedaling  

<table>
<thead>
<tr>
<th>Agility</th>
<th>Lift</th>
<th>Front</th>
</tr>
</thead>
</table>
|        | Look/Identify/React- choose appropriate line, speed A  
|        | Brake if needed to walking speed C  
|        | Move to ready position  
|        | Quickly weight the front wheel as obstacle is reached; compress F suspension B  
|        | Instantly unweight the front wheel as obstacle is reached; lift head & shoulders; weight transfer up and back B, and simultaneously.  
|        | Pull handlebars toward chest B+C  
|        | Pass over obstacle; speed maintained  
|        | Rear wheel rolls over obstacle; absorb shock with knees and elbows  
|        | Continue pedaling, return to sitting balanced position  

<table>
<thead>
<tr>
<th>Agility</th>
<th>Mount/Dismount</th>
<th>Straddle mount</th>
</tr>
</thead>
</table>
|        | Stand on left side of bike  
|        | Hands on handlebars  
|        | Left pedal up  
|        | Swing right leg over bike, straddle B  
|        | Left foot on left pedal (up)  
|        | Push (pedal with left foot C  
|        | Move right foot onto right pedal  
|        | Pedal  
|        | Maintain balance  
|        | Pedal away  

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BMX Skills and Tactics Ref Mat V 3.4 Jan 10
<table>
<thead>
<tr>
<th>Agility</th>
<th>Mount/Dismount Bail</th>
</tr>
</thead>
<tbody>
<tr>
<td>Look/Identify/ React- choose appropriate line, speed, pick a landing spot A</td>
<td>Unclip shoes from pedals if using cleats C</td>
</tr>
<tr>
<td>Move to ready position</td>
<td>Lean toward safe landing spot and move foot down</td>
</tr>
<tr>
<td></td>
<td>Brake while continuing to lean B+C</td>
</tr>
<tr>
<td></td>
<td>Put foot ahead if descending, behind if climbing</td>
</tr>
<tr>
<td></td>
<td>If bike is still rolling (emergency bail), as foot reaches ground, lift other leg over saddle and push bicycle away (goal is two feet on ground and bicycle falling to other side)</td>
</tr>
<tr>
<td></td>
<td>Slow bail: bike stops as one foot hits ground, rider balanced and stable</td>
</tr>
<tr>
<td></td>
<td>If emergency bail: goal is two feet on ground and bicycle falling to other side</td>
</tr>
<tr>
<td></td>
<td>Restart, ride away</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Spatial Sense</th>
<th>Group Bump</th>
</tr>
</thead>
<tbody>
<tr>
<td>Look/Identify/ React- choose appropriate line, speed, distance A</td>
<td>Align shoulder with shoulder of other rider – match speed</td>
</tr>
<tr>
<td>Brake if needed C</td>
<td>Small weight transfer to side (lean upper body while keeping bicycle vertical)</td>
</tr>
<tr>
<td></td>
<td>Bump elbows; maintain balance</td>
</tr>
<tr>
<td></td>
<td>Resume normal pedaling</td>
</tr>
<tr>
<td></td>
<td>Maintain or initiate new skill</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Spatial Sense</th>
<th>Group Buzz</th>
</tr>
</thead>
<tbody>
<tr>
<td>Look/Identify/ React- choose appropriate line, speed, distance A</td>
<td>Align F wheel with R wheel of other rider – match speed</td>
</tr>
<tr>
<td>Brake if needed C</td>
<td>Modulate speed until wheels touch; maintain ready position</td>
</tr>
<tr>
<td></td>
<td>Touch wheels; maintain balance</td>
</tr>
<tr>
<td></td>
<td>Resume normal pedaling</td>
</tr>
<tr>
<td></td>
<td>Maintain or initiate new skill</td>
</tr>
</tbody>
</table>
Skill Analysis & Error Correction Sheet

Skill: ________________________________

Observation Strategy: (Where to look, where to stand, what to watch for)

<table>
<thead>
<tr>
<th>5 phase</th>
<th>3 phase</th>
<th>Key Movements (ABCs + others)</th>
<th>Errors Observed</th>
<th>Recommended Correction</th>
</tr>
</thead>
<tbody>
<tr>
<td>Set-up</td>
<td>Set-up</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Preliminary</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Force-producing</td>
<td>Movement</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Critical Instant</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Follow-through</td>
<td>Follow-through</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
## Cycling Skill Planner

*Use this sheet to plan a skill development session.*

**Skill:**

<table>
<thead>
<tr>
<th>Describe the skill:</th>
<th>Set-up and Equipment:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Teaching Points:</th>
<th>Observation Plan:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Progressions:</th>
<th>Demonstration Plan:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Errors and Corrections:</th>
<th>Activity Plan for Group:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Summary/Wrap-up:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
</tbody>
</table>
# Cycling Skill Planner

*Use this sheet to plan a skill development session.*

## Skill: Braking (combined front and rear)

<table>
<thead>
<tr>
<th>Describe the skill:</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Use both front and rear brakes together to slow or come to a complete stop.</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Set-up and Equipment:</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Four cones each 10 m apart. The 2 middle cones mark beginning and end of braking area (about 10 m long).</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Teaching Points:</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Look/Identify/React (spot stop point)</td>
</tr>
<tr>
<td>• Move to ready position</td>
</tr>
<tr>
<td>• Apply front and rear brakes together evenly (squeeze- don’t grab) and simultaneously transfer weight rear</td>
</tr>
<tr>
<td>• Slow to desired speed or stop by target point</td>
</tr>
<tr>
<td>• Return to balanced position; resume pedaling</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Observation Plan:</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Stand beside braking area, close to stop point, and about 2 m to the side to allow room for the rider to pass.</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Progressions:</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Rear brake alone, front brake alone</td>
</tr>
<tr>
<td>2. Combined braking</td>
</tr>
<tr>
<td>3. Brake from higher speed</td>
</tr>
<tr>
<td>4. Brake in shorter distance</td>
</tr>
<tr>
<td>5. Brake on command from coach</td>
</tr>
<tr>
<td>6. Brake on slippery surface (grass, wet grass)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Demonstration Plan:</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Group stands beside braking area, facing it, about 2 m to the side. Coach enters braking area and brakes, while providing comments. If using a second demonstrator, coach stands on other side of braking area facing the group while providing comments.</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Activity Plan for Group:</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Group rides a loop 30 m long, passing through braking area in single file, spaced about 5 m apart. As each enters braking area, they stop and accelerate away, Coach provides feedback as they stop. Riders turn around at 1st and 4th cones and continue loop. Keep the riders well-separated.</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Summary/Wrap-up:</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Remember, look ahead, squeeze both brakes and shift your weight back!</strong></td>
</tr>
</tbody>
</table>
### Cycling Skill Planner

*Use this sheet to plan a skill development session.*

#### Skill: **Straight-line riding (wide to narrow surfaces)**

<table>
<thead>
<tr>
<th>Describe the skill:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ride in a smooth straight line with no wobbles.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Set-up and Equipment:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Painted straight line; wooden plank; low ramp and low teeter-totter.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Teaching Points:</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Look/Identify line</td>
</tr>
<tr>
<td>• Balanced position</td>
</tr>
<tr>
<td>• Brake or pedal to adjust speed - not too slow</td>
</tr>
<tr>
<td>• Move to ready position</td>
</tr>
<tr>
<td>• Relax upper body, hands</td>
</tr>
<tr>
<td>• Weight transfer side to side as needed</td>
</tr>
<tr>
<td>• Balance maintained</td>
</tr>
<tr>
<td>• Ride off in ready position</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Observation Plan:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Front ¾ view. It's easier to see control movements from the front.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Progressions:</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Ride on painted line</td>
</tr>
<tr>
<td>2. Ride on plank flat on ground</td>
</tr>
<tr>
<td>3. Ride up/down ramp</td>
</tr>
<tr>
<td>4. Ride on teeter (note: teach bail/ride off first)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Demonstration Plan:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Group stands along line of travel, 2 m back, watching front ¾ view of demo rider. Demo rider shows importance of correct speed (fast enough not to wobble, slow enough to stay in control).</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Errors and Corrections:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wobble- too slow: Speed up slightly</td>
</tr>
<tr>
<td>Wobble- too tense: Relax hands, upper body.</td>
</tr>
<tr>
<td>Fall off teeter: Usually too tense or too slow, or stops part way on teeter (fear)- practice riding off teeter first.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Activity Plan for Group:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Group rides 30 m loop, single file, spaced 5 m apart. Coach provides feedback as they enter observation zone. Remind riders to maintain space between themselves.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Summary/Wrap-up:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pick the right speed and relax your hands and arms.</td>
</tr>
</tbody>
</table>
# Cycling Skill Planner

*Use this sheet to plan a skill development session.*

## Skill: **Tight turns**

### Describe the skill:

*Ride a 180 degree turn in a narrow space (eg switchback).*

### Set-up and Equipment:

- Cones or chalk-line path requiring rider to turn with less than 0.5 m clearance. Set up several stations (1 for every 2 riders is ideal).
- *Use Bullseye Circle course first.*

### Teaching Points:

- Look/Identify/ React - choose line, spot obstacles
- Move to ready position
- Brake as needed to modulate speed
- Look across turn (line) - turn head as needed
- Weight transfer side to side as needed to maintain balance - standing on level pedals
- Light rear brake and move pedals as needed to regulate speed (pedal, coast or ratchet)
- Steer front wheel as wide as possible in space available

### Observation Plan:

*Watch from side, 2 m away. Look for balance and front and rear wheel paths (the front turns in wider space).*

### Progressions:

1. Wider to narrower space (cones, lines)
2. Series of L and R tight turns (snake)
3. Turn while climbing or descending

### Demonstration Plan:

*Group watches from side, 2 m back. Best to have a separate demo rider, coach provides comments facing group.*

### Errors and Corrections:

- **Front wheel hits cone:** slow down, focus
- **Rear wheel hits cone:** steer front wheel wider around cone (rear follow tighter path)
- **Rider dabs:** speed too fast/slow, modulate rear brake, ratchet

### Activity Plan for Group:

*Riders take turns riding the tight turn at their stations.*

*Follow with Survivor Game if desired (similar control skill).*

### Summary/Wrap-up:

*Practice using your rear brake and ratcheting to keep you at the right speed while you turn.*
## Cycling Skill Planner

*Use this sheet to plan a skill development session.*

### Skill: **Gearing and cadence**

<table>
<thead>
<tr>
<th>Describe the skill:</th>
<th>Set-up and Equipment:</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>Choose the appropriate gear to maintain cadence (usually 60-90 revs per minute) in different conditions (climbing, flat riding, downhill)</em></td>
<td><em>4 cones spaced 10 m apart to create a 30 m demonstration loop with 10 m observation zone in middle.</em></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Teaching Points:</th>
<th>Observation Plan:</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>Look/react to terrain</em></td>
<td><em>Front ¾ view. It’s easier to see control movements from the front.</em></td>
</tr>
<tr>
<td><em>Shift gear to maintain same cadence</em></td>
<td></td>
</tr>
<tr>
<td><em>If shifting on hill, soft-pedalling can ease gear change</em></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Progressions:</th>
<th>Demonstration Plan:</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Changing gear on flat ground</td>
<td><em>Coach demonstrates gear action by shifting stationary bike (held by another, or inverted, or on stand).</em></td>
</tr>
<tr>
<td>2. Changing gear while climbing a hill</td>
<td><em>Then, group stands along line of travel, 2 m back, watching front ¾ view of demo rider. Demo rider changes gears on command.</em></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Errors and Corrections:</th>
<th>Activity Plan for Group:</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>Selects wrong gear for terrain: try again (maintain cadence)</em></td>
<td><em>Riders practice gearing up and down, front and rear, independently.</em></td>
</tr>
</tbody>
</table>

| Summary/Wrap-up: | |
|------------------| |
| *Remember to look ahead and choose a gear to match the terrain. Practice makes perfect!* | |
Cycling Skill Planner

Use this sheet to plan a skill development session.

Skill: **Cornering (medium-speed)**

<table>
<thead>
<tr>
<th>Describe the skill:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Travel around a medium-speed corner, following the fastest line while maintaining speed and balance.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Set-up and Equipment:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Set up a series of cones or chalk line corner path.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Teaching Points:</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Look/Identify/React-choose appropriate line</td>
</tr>
<tr>
<td>• Ready position</td>
</tr>
<tr>
<td>• Inside pedal is up</td>
</tr>
<tr>
<td>• Initiate turn with slight bike lean with arms</td>
</tr>
<tr>
<td>• Body stays upright, balanced over outside (low) pedal, bike leans through turn</td>
</tr>
<tr>
<td>• “Put weight on outside (down) pedal” cue</td>
</tr>
<tr>
<td>• Hit correct line, speed maintained</td>
</tr>
<tr>
<td>• On exit, move back to balanced position; resume normal pedaling</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Observation Plan:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Coach stands inside corner path 2 m back. Look for space between the rider and saddle, allowing the bike to lean while trunk stays upright.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Progressions:</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Increase speed</td>
</tr>
<tr>
<td>2. Series of corners right, left</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Demonstration Plan:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Riders stand in a line inside the corner 2 m back. Coach stands outside the corner giving commentary while a demo rider performs the skill.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Errors and Corrections:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inside pedal down: correct</td>
</tr>
<tr>
<td>Misses line- speed too high: slow before corner</td>
</tr>
<tr>
<td>Not standing on pedals therefore body leans with bike: this is acceptable on the road but in loose conditions preferable to lean bike and hold body erect.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Activity Plan for Group:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Riders ride single file 5 m apart in a loop, passing through the observation zone one at a time.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Summary/Wrap-up:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Look, ready position, lean the bike and keep your head and body up.</td>
</tr>
</tbody>
</table>
## Cycling Skill Planner

*Use this sheet to plan a skill development session.*

### Skill: **Front wheel lift**

<table>
<thead>
<tr>
<th>Describe the skill:</th>
<th>Set-up and Equipment:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lift the front wheel to clear an obstacle (eg log).</td>
<td>Pool noodle on ground to simulate log.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Teaching Points:</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Look/Identify/ React- choose appropriate line, speed</td>
</tr>
<tr>
<td>• Brake if needed to walking speed</td>
</tr>
<tr>
<td>• Move to ready position, pedals level</td>
</tr>
<tr>
<td>• At obstacle, weight (preload) front wheel and instantly unweight the front wheel as obstacle is reached; lift head &amp; shoulders; weight transfer up and back; simultaneously pull handlebars toward chest</td>
</tr>
<tr>
<td>• Rear wheel rolls over obstacle; absorb shock with knees and elbows</td>
</tr>
<tr>
<td>• Continue pedaling, return to sitting balanced position</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Observation Plan:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Coach stands at obstacle observing from side. Look for strong pre-load and immediate lift of the trunk (coordinated movement).</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Progressions:</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Basic skill- pool noodle</td>
</tr>
<tr>
<td>2. Larger obstacle- up to 10 cm</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Demonstration Plan:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Group lines up along path of travel at obstacle. Coach either demonstrates and comments, or has an assistant demonstrate and comments while facing group.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Errors and Corrections:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not enough wheel lift- bring handlebars to chest</td>
</tr>
<tr>
<td>Not enough wheel lift- lift torso up</td>
</tr>
<tr>
<td>Not enough wheel lift- heavy bike and small (young rider)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Activity Plan for Group:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Group rides 30 m long loop single file spaced 5 m apart. As they enter/exit observation zone (obstacle) coach provides feedback. Remind riders to remain spaced apart.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Summary/Wrap-up:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Correct speed, preload and spring up while pulling the bars.</td>
</tr>
</tbody>
</table>
**Cycling Skill Planner**  
*Use this sheet to plan a skill development session.*

**Skill:** **Pick up and drop an object**

<table>
<thead>
<tr>
<th>Describe the skill:</th>
<th>Set-up and Equipment:</th>
</tr>
</thead>
<tbody>
<tr>
<td>While riding, pick up an object (eg water bottle) with one hand from a low platform/ground and replace it on a similar platform/ground after a few pedal strokes.</td>
<td>Two low tables/platforms about 30 cm high, spaced about 10 m apart. Set up two stations if possible.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Teaching Points:</th>
<th>Observation Plan:</th>
</tr>
</thead>
</table>
| • Look/Identify/React- choose appropriate line, speed  
  • Brake if needed  
  • Lean trunk toward object- bike leans opposite to maintain balance  
  • Grasp, lift object (bottle)  
  • Lower object & weight transfer to side to counter-balance  
  • Return hand to handlebars | Coach stands 2 m away from tables to one side. Look for lean of body while bike leans the opposite way to maintain balance. |

<table>
<thead>
<tr>
<th>Progressions:</th>
<th>Demonstration Plan:</th>
</tr>
</thead>
</table>
| 1. Lower platforms  
  2. No platform- bottle on ground | Group stands in a line parallel to direction of travel, at pick-up point. Coach demonstrates while providing comments. |

<table>
<thead>
<tr>
<th>Errors and Corrections:</th>
<th>Activity Plan for Group:</th>
</tr>
</thead>
</table>
| Can’t pick up: too fast- reduce speed  
  Can’t pick up: not enough lean- practice touching shoe, other activities to get used to leaning to side. | Group rides in single file 10 m apart. Each rider picks up and drops off. Coach shuttles bottles back to pick-up table for next riders. More stations are preferable as riders may drop or knock over bottles. |

**Summary/Wrap-up:**

Slow down, lean to the side while letting the bike lean the other way…that’s it!
Cycling Skill Planner  
*Use this sheet to plan a skill development session.*

**Skill: Hill climbing (sitting)**

<table>
<thead>
<tr>
<th>Describe the skill:</th>
<th>Set-up and Equipment:</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>Climb a hill while sitting in the saddle.</em></td>
<td><em>None (small hill 10-20 m long)</em></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Teaching Points:</th>
<th>Observation Plan:</th>
</tr>
</thead>
<tbody>
<tr>
<td>● Look/Identify/React- choose appropriate line</td>
<td><em>Coach stands at top of hill facing climbing rider. Look for selection of correct gear at bottom, weight transfer forward and low trunk over handlebars.</em></td>
</tr>
<tr>
<td>● Change gear as needed at bottom</td>
<td></td>
</tr>
<tr>
<td>● Weight transfer forward, lower trunk</td>
<td></td>
</tr>
<tr>
<td>● Continue pedaling while maintaining forward weight distribution</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Progressions:</th>
<th>Demonstration Plan:</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Basic seated climb</td>
<td><em>Group stands at top of hill. Coach explains skill at top, descends, demonstrates, and re-caps skill. Alternately coach stands with group and comments while a separate demonstrator climbs the hill.</em></td>
</tr>
<tr>
<td>2. Standing climb (see skills)</td>
<td></td>
</tr>
<tr>
<td>3. Crouching climb (see skills)</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Errors and Corrections:</th>
<th>Activity Plan for Group:</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>Stops on hill: gear down at bottom</em></td>
<td><em>Ideally this skill is paired with descending so riders can practice both as they climb, turn and descend. Space riders about 10 m apart and have them climb in single file, either stopping 10 m after top, or descending in a continuous loop. Note: more space is needed as some riders may stop on hill.</em></td>
</tr>
<tr>
<td><em>Front wheel lifts: shift weight forward on saddle, lower trunk over handlebars.</em></td>
<td></td>
</tr>
<tr>
<td><em>Front wheel wanders: shift weight forward on saddle, lower trunk over handlebars, relax hands and let the bike follow its path.</em></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Summary/Wrap-up:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><em>Pick a low gear at the bottom, shift forward, look up, and pedal!</em></td>
<td></td>
</tr>
</tbody>
</table>
### Cycling Skill Planner

*Use this sheet to plan a skill development session.*

**Skill: Descending**

<table>
<thead>
<tr>
<th>Describe the skill:</th>
<th>Set-up and Equipment:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Descend a hill in control.</td>
<td>None (small hill 10-20 m long)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Teaching Points:</th>
<th>Observation Plan:</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Look/Identify/React- choose appropriate line, speed</td>
<td>Coach stands at bottom of hill facing descending rider. Look for head up/eyes ahead, weight transfer back, level pedals and hands on brakes.</td>
</tr>
<tr>
<td>• Brake if needed</td>
<td></td>
</tr>
<tr>
<td>• Move to ready position</td>
<td></td>
</tr>
<tr>
<td>• Look at path (line)- turn head as needed</td>
<td></td>
</tr>
<tr>
<td>• Weight transfer back (more for steeper descent)</td>
<td></td>
</tr>
<tr>
<td>• Pedals in level position</td>
<td></td>
</tr>
<tr>
<td>• Steer, weight transfer side to side as needed</td>
<td></td>
</tr>
<tr>
<td>• Descent completed speed maintained</td>
<td></td>
</tr>
<tr>
<td>• Change gear as needed</td>
<td></td>
</tr>
<tr>
<td>• Resume pedaling</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Progressions:</th>
<th>Demonstration Plan:</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Steeper hill</td>
<td>Group stands at bottom of hill. Coach explains skill at bottom, climbs, demonstrates, stops and re-caps skill. Alternately coach stands with group and comments while a separate demonstrator descends the hill.</td>
</tr>
<tr>
<td>2. Turns on hill</td>
<td></td>
</tr>
<tr>
<td>3. Loose surface on hill</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Errors and Corrections:</th>
<th>Activity Plan for Group:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Too fast- not in control: remind to modulate brakes and use more rear brake on way down.</td>
<td>Ideally this skill is paired with climbing so riders can practice both as they climb, turn and descend. Space riders about 10 m apart and have them descend in single file, either stopping 20 m after bottom, or descending in a continuous loop. Note: more space is needed as riders will descend at different speeds. Ensure safe run-out area at bottom.</td>
</tr>
<tr>
<td>Too slow: recommend no front brake, less rear.</td>
<td></td>
</tr>
<tr>
<td>Unstable: transfer weight more to rear.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Summary/Wrap-up:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Look up, push back, and use your brakes to stay in control.</td>
<td></td>
</tr>
</tbody>
</table>
Cycling Skill Planner

*Use this sheet to plan a skill development session.*

**Skill: Drop-off**

<table>
<thead>
<tr>
<th>Describe the skill:</th>
<th>Set-up and Equipment:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ride a &quot;drop-off&quot; (small, steep descent) in control.</td>
<td>None (small drop-off, such as a curb. Do not use a drop-off more than approximately 1 m deep).</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Teaching Points:</th>
<th>Observation Plan:</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Look/Identify/ React- choose appropriate line, speed</td>
<td>Stand at bottom of drop-off, 2 m to side. Watch for slowing/scan at top, weight shift back, level pedals and no brakes.</td>
</tr>
<tr>
<td>• Brake if needed to walking speed</td>
<td></td>
</tr>
<tr>
<td>• Move to ready position</td>
<td></td>
</tr>
<tr>
<td>• Brake and look over edge of drop, pedals level; decide to drop</td>
<td></td>
</tr>
<tr>
<td>• Transfer weight back and extend arms, trunk low to bike (&quot;push bike ahead&quot;)</td>
<td></td>
</tr>
<tr>
<td>• Coast over drop-off, pedals level</td>
<td></td>
</tr>
<tr>
<td>• Front wheel &quot;hits&quot; bottom; absorb shock with knees and elbows (weight transfers forward)</td>
<td></td>
</tr>
<tr>
<td>• Extend elbows to return to ready position</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Progressions:</th>
<th>Demonstration Plan:</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Larger drop-off (to 1 m)</td>
<td>Group stands at bottom of drop-off. Coach explains from top, demonstrates, and re-caps at bottom.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Errors and Corrections:</th>
<th>Activity Plan for Group:</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>Endo</em>- front brake: do not use brakes. Slow at top. <em>Endo</em>- weight not back: push weight back or even off back of saddle.</td>
<td>Group waits 5 m from top of drop-off. Riders attempt individually on signal from coach (when path is clear.)</td>
</tr>
<tr>
<td>(These should not occur on a small drop-off such as a curb.)</td>
<td>Note: if front wheel lift has already been taught and a curb is used for drop-off, make a circuit down the curb, around a loop, then lifting front wheel up the curb in a different location.</td>
</tr>
</tbody>
</table>

**Summary/Wrap-up:**

*Make sure it’s safe, then push the bike over the edge with your weight well back. No brakes!*
## Cycling Skill Planner

*Use this sheet to plan a skill development session.*

**Skill: Bumping**

<table>
<thead>
<tr>
<th>Describe the skill:</th>
<th>Set-up and Equipment:</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>Ride next to another rider and bump elbows.</em></td>
<td><em>Flat surface, preferably smooth grass field.</em></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Teaching Points:</th>
<th>Observation Plan:</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Look/Identify/React - choose appropriate line, speed, distance</td>
<td><em>Coach stands in center of area scanning pairs of riders.</em></td>
</tr>
<tr>
<td>• Brake if needed</td>
<td></td>
</tr>
<tr>
<td>• Align shoulder with shoulder of other rider – match speed</td>
<td></td>
</tr>
<tr>
<td>• Small weight transfer to side (lean upper body while keeping bicycle vertical)</td>
<td></td>
</tr>
<tr>
<td>• Bump; maintain balance</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Progressions:</th>
<th>Demonstration Plan:</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Touch other rider with hand.</td>
<td><em>The coach needs a partner to demonstrate with. Group lines up and coach and partner practice bumping in front of group.</em></td>
</tr>
<tr>
<td>2. Bump shoulders.</td>
<td></td>
</tr>
<tr>
<td>3. Ride while maintaining contact between shoulders.</td>
<td></td>
</tr>
<tr>
<td>4. Lean together while maintaining contact.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Errors and Corrections:</th>
<th>Activity Plan for Group:</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>Fall: too aggressive- warn to slow down and not bump too hard.</em></td>
<td><em>Split group into pairs. Space pairs well apart and have them try it. Warn them not to bump too hard!</em></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Summary/Wrap-up:</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>This is great practice for keeping your balance when bumped. Take it easy!</em></td>
</tr>
</tbody>
</table>
Teaching and Learning

The teaching process may be broken down into five main phases: (1) designing learning activities; (2) setting up the activities; (3) delivering the activities; (4) assessing the learning; (5) adjusting and re-tooling. The first phase (activity design) is when you plan your training and practice sessions; this is the starting point for your teaching. You will find more specific material on this area in the “Planning a Practice” module.

In the present module, we intend to focus on the teaching process, and on specific aspects and skills that relate to what you do when you are with your athletes in a practice session. Of course, you must always keep in mind that the actual sport content of what you teach remains an essential part of an effective teaching process. On the other hand, you will also see in this module that the best technical knowledge or planning skills may turn out to be ineffective if certain principles of effective teaching are not respected. This module aims at providing you with opportunities to better understand these principles, while also engaging you in some reflection on your own teaching. It is also designed to equip you with some tools to help you improve your teaching skills.

Although it is not realistic to expect anyone to improve his/her teaching abilities significantly in six hours of training, one of our goals is to provide you with some very concrete means to continue developing your teaching skills on your own. This will be done through the “self-monitoring” process shown below.

This module will enable you to get involved in each step of this process by: (1) showing you how to use some tools designed to assess teaching effectiveness; (2) providing you with the opportunity to use some of these tools; (3) showing you how to analyze the data in order to identify specific aspects of your teaching you may wish to work on to be more effective.
Diagram #1
Key Factors to Consider in Assessing the Effectiveness of Teaching

Safety
- Type of practice and conditions in which activities take place during practice
- Weather
- Site and practice area
- Equipments
- Level of fatigue of the athletes
- Behaviour of the athletes

Organization
- Promotes maximum practice time
- Reflects sport-specific procedures that are proven
- Equipments are available and ready to be used
- Enables a rapid transition between explanations and activities, and between each activity
- Optimal use of space, time, and equipment available
- Coach freed up to supervise activities better
- Promotes individual attention to athletes

Observation and supervision of activities
- Active supervision (moving around to observe all the athletes)
- Constant scanning of practices
- Observing performance from different vantage points
- Comparing observed performance to relevant success criteria
- Interventions are done individually (mostly) and with the group (as needed)

Explanations and demonstrations
- Done in conditions similar to those the athletes will face
- All the athletes can see and hear
- Sufficient number (2-3) of reference points identified
- Safety factors identified
- Include some criteria to enable athletes to evaluate their own performance as they practice

Learning environment
- Athletes are actively engaged most of the time
- Opportunities exist to interact with athletes who need the most attention
- Degree of difficulty of exercises is adapted to the skills level of the athletes
- Signs of boredom are recognized and the task is adapted as needed

Feedback
- Is specific (accurately outlines what to correct and how)
- Is positive and constructive to promote self-esteem
- Non-verbal feedback is coherent with verbal feedback
- Is correct from a technical point of view
- Is coherent with success criteria identified for the task
- Is formulated clearly and in a manner that draws the attention of the athlete on the right things
- Is provided at the right time and frequency

Athlete’s Learning
- Quantity and quality of motor involvement
- Learning styles
STEPS OF COACHING AN ACTIVITY

Step 1: Organization

- Always think about how to begin and finish an activity or a drill.
- Always take into account the safety issues of the activity or drill.
- Organize the activity in a way that allows each athlete to remain active during at least 50% of practice time.
- Organize the activity in a way that enables athletes to progress at their own pace.
- Set up the environment in such a way as to allow yourself to move around and see every athlete without interfering.
- Ensure each athlete has the maximum possible amount of practice time (number of repetitions)
- Always plan for the equipments that will be used during the activity or the drill, prepare them ahead of time and make sure they are available at the time of the activity.

ASK YOURSELF THESE QUESTIONS BEFORE AND AFTER THE PRACTICE

Did I set up the practice or the activity in a way that:

1. Enabled each of the athletes to be actively engaged for at least 50% of the time?
2. Allowed me to spend more than half my time with individual athletes?
3. Enabled each athlete to progress at his/her own pace, respecting the athlete’s starting point?
4. Gave me sufficient time to observe the athletes?
PRACTICE ORGANIZATION

Coach: ______________________
Observer: ______________________

The set up for the activity was:

_____ Quick and efficient
_____ Quick but not efficient
_____ Neither quick nor efficient

The athletes began the activity:

_____ Quickly and correctly
_____ Quickly, but not correctly
_____ Correctly, but not quickly
_____ Neither quickly nor correctly

During the activity:

Good use was made of the available equipment: Yes (   ) No (   )
Good use was made of the available space: Yes (   ) No (   )
Good use was made of the available time: Yes (   ) No (   )
Groupings were adequate: Yes (   ) No (   )
Athletes practiced in safe conditions: Yes (   ) No (   )

In the practice, the athletes are actively engaged:

_____ Most of the time (50 % or more of the time)
_____ Moderately (30-50 % of the time)
_____ Insufficiently (30 % or less of the time)
Step 2: Explanation and Demonstration

- Tell the athletes the object of the exercise or drill.

- Always give the athletes some cues or reference points (what he/she should look for or feel while performing). Effective cues are short, clear, simple and not too many (two or three).

- A cue is a precise piece of information that enables the performer to control a movement. It must be observable by the coach and easily understood by the athlete. There are two types of cues: external and internal.
  - An EXTERNAL CUE can be seen or heard by the athlete.
  - An INTERNAL CUE is perceived internally by the athlete (kinesthetic sensations).

- Suggest to athletes that, while executing the movement, they should pay attention to or concentrate on (1) something external to their body (e.g., a target); or (2) the expected outcome of their movements, and not too much on how the movement is being performed or on what they feel. In motor learning, this type of instruction is called external focus of attention.

- Always show and tell the athlete what successful performance will look and feel like (how will the athlete know that he or she has succeeded?).

- Be sure to use appropriate words, movements, or visuals (if possible) to take into account the preferred learning style of each athlete (visual, kinesthetic, and auditory).

ASK YOURSELF THESE QUESTIONS DURING AND AFTER THE PRACTICE

Did my explanations and demonstrations enable me to:

1. Create a clear picture of what I wanted to see happen and how?

2. Describe the logistical and organizational aspects of the drill/activity?

3. Emphasize the most important aspects (reference points, external focus)?

4. Pass on information on the “why” of things (e.g., the reasons why a movement should be done in a particular way)?

5. Respect the athletes’ individual learning styles?

6. Check for understanding?
Practical Applications of Recent Research in Motor Learning: Key Points on Giving Instructions

Recent research in the area of motor learning has focused on the effectiveness of different ways of giving instructions. Among others areas of interest, researchers have tried to determine what athletes should focus on during the execution of a motor task: (1) on the way the movement or skill is performed (internal focus); or (2) on an external element or the anticipated effect of the movement (external focus). The key points from these studies are summarized below.

- **To promote learning, instructions should be given in such a way as to focus the athlete’s attention on some external factor and/or the anticipated effect of his/her movement, rather than on the way the movement is executed**

  Focusing too much on the way to perform a particular movement, e.g., focusing on the position of the elbow and how to make a flick of the wrist at the end of the movement, can be detrimental to motor learning. During the execution of the movement, it seems to be more effective to draw the athlete’s attention to some external factor, (e.g., the target to hit, or the expected outcome of the movement like the particular trajectory to impart to a ball) rather than internal elements (e.g., feeling each phase of the movement during its execution). Research on this topic is known as “focus of attention”.

  There is ample evidence to suggest that instructions whereby the athlete is asked to focus attention on some element external to his/her body have a positive impact on both short-term performance (i.e. during the practice session) and longer-term performance; this type of instruction therefore appears to promote both learning and retention of skill. In addition, instructions of this type appear to be effective for most sports skills, and whatever the level of the performer. Finally, the positive effects of this type of instructions on both performance and learning do not appear to affect negatively the form of the movements; in other words, the quality of the execution does not appear to suffer.

- **If possible, external focus should be directed towards an element, and anticipated effect, or an outcome which is far from the performer’s body**

  Current research suggests that the most effective approach requires the learner to focus on an expected outcome situated as far as possible from the athlete’s body, but which can nevertheless still be directly linked to the movement itself.
Choosing a Formation for Giving an Explanation or a Demonstration

It is important to choose an effective formation in order to be seen and heard by the athletes. The choice of formation depends on the space available, the kind of message (information, explanation, demonstration) and the number of athletes. The diagrams below show common formations.

- **Straight line**

- **Two lines**

- **Semi-circle**

- **U formation**
Adapting the Basic Formations

These basic formations can be adapted to meet the needs of larger groups, for example:

- Make two rows: the front row kneeling or sitting, and the second row standing.
- Make three rows: front row sitting, the second kneeling, and the third standing.

Control Distractions

The athletes must be arranged with potential distractions behind them, for example:

- Sun in their eyes
- Reflections
- Activity in the street
- Other groups of athletes training
- Spectators

Choose a Good Vantage Point for the Athletes

It is important to ensure that the athletes have a good vantage point to watch the demonstration. Think of the best vantage points for the athletes in relation to the formation you have chosen before you begin the demonstration.

If you need to, turn 90 or 180 degrees and do the demonstration again so that everyone can have several views of the demonstration, and has the opportunity to observe from the best vantage point. However, avoid doing the demonstration too many times as it may take too much time, and the athletes who have already seen it enough may “switch off”.

## Demonstration

**Coach:** ____________________  **Observer:** ____________________

<p>| | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Equipments were ready for the start of the demonstration</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>2</td>
<td>Organization of the athletes was appropriate</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>3</td>
<td>Demonstration gave a good general idea of the technique or movement</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>4</td>
<td>Demonstration directed the attention of the athletes to an external focus (target, outcome, expected effect)</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>5</td>
<td>Coach pointed out what should be avoided</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>6</td>
<td>Demonstration was repeated from different angles</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>7</td>
<td>Athletes were involved in the demonstration in an appropriate way</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>8</td>
<td>Coach identified internal and external points of reference</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>9</td>
<td>Coach explained the reason for doing the activity/drill (link with previous practices, etc.)</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>10</td>
<td>Coach checked that the athletes had a good understanding of what needs to be done</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>11</td>
<td>Technical elements of the demonstration were executed correctly</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>12</td>
<td>Amount of information provided by the coach was appropriate (clear, short, accurate)</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>13</td>
<td>Coach used vocabulary respecting the three learning styles</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>14</td>
<td>Coach emphasized safety aspects when appropriate</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>15</td>
<td>Coach’s voice was loud enough and projected well enough</td>
<td>Yes</td>
<td>No</td>
</tr>
</tbody>
</table>

### Comments:

____________________________________________________________________

____________________________________________________________________

### Overall assessment:

( ) Excellent performance  
( ) Good performance, some adjustments required, but generally well done  
( ) One or two serious mistakes, room for improvement, but acceptable  
( ) Not acceptable, several serious mistakes
Step 3: Observation

- Ensure that the athletes get involved in the activity quickly (rapid transition).
- Always ensure athletes have a clear understanding of the task at hand, in view of the instructions that were given.
- Always ensure that the activity or drill is appropriate for the skill level of the athletes, and that it is not beyond their current abilities.
- Always ensure that there is a good rate of success among the athletes, i.e. most of the athletes are able to achieve the desired outcome.
- Be actively involved in the supervision of the athletes, so that you get to see ALL the athletes during the activity. Scanning the activity and moving around to watch what is going on from different vantage points enable you to be actively involved. (Note: During sport-specific workshops, find out about the best way of moving around and observing athletes without interfering with them).
- Be sure to watch individual athletes so that you can be aware of the individual differences in performance, and can then provide individualised feedback.
- Find out if the athletes have fun, or if they are not bored or discouraged.

ASK YOURSELF THESE QUESTIONS DURING AND AFTER THE PRACTICE

Did my supervision enable me to:

1. Keep the athletes actively engaged in the activity?
2. See all the athletes as a group and individually?
3. Observe key reference points and success criteria from different vantage points?
4. Be sure everyone is safe?
5. Evaluate the athletes’ degree of success in the execution of the activity or drill? (See Challenge Zone on the next page.)
**Intervention Skills**
The most important intervention skills recognized by the majority of researchers are the following:

**Planning**
1. The content of the session must have some relation to the overall program.
2. The coach must know his/her stuff.
3. The objectives of the practice must be clearly defined.
4. The key elements of the practice and criteria for success must be clearly defined.
5. Exercises must be varied and progressive.
6. Exercises must be adapted to the level of the athletes.

**Organization**
1. Ensure there is enough appropriate equipment.
2. Choose the right formation for explanations and demonstrations.
3. Be stimulating and lively (have fun!).
4. Be sure that the practice area is safe throughout the session.

**Giving information**
1. Explanations must be brief and clear.
2. Explanations must be complete (organization of the group, how the practice will go, the duration of the practice, etc.).
3. The context must be appropriate (quiet, respectful: the learner must be paying attention in order to learn, but must also be open to receiving and assimilating the explanation being given).
4. The coach must be in the right position during the explanation, i.e. in front of the group; the participants/athletes may be standing or sitting in a semi-circle in front of the coach.
5. The words used must be correct and adapted to meet the needs of the targeted group (don’t use words or terminology that only you know).
6. Delivery must be controlled: speak slowly, loud enough and with enthusiasm; ask the participants/athletes if your voice carries well enough.
7. Demonstrations serve above all to create a mental picture of the movement. Obviously, this picture must be as accurate as possible, as it is the basis of all learning. A good demonstration has the following characteristics: the movement is well–executed, the timing is right, the demonstration is carried out in the right place, and everyone can see it.
8. Give clear instructions such as: “Make as many passes as possible in the time given, and keep moving!”.
9. Ask questions to check whether your instructions have been understood, for example, “What must you do during this drill?”.
10. Check that the participants/athletes have understood the object of the exercise before letting them go back into a game situation.
Managing the group

1. Ensure that the participants are aware of the rules to follow and the code of conduct.
2. Be sure to inform the participants/athletes of the rules, and of the consequences of not following them; the consequences must be reasonable and take into account the age of the participants/athletes, and the nature of the infraction.
3. Watch out for signs of indiscretion, and react quickly and appropriately to this kind of behaviour.
4. Apply the rules and impose the appropriate penalty for breaking the rules (which you have already established).
5. Adapt quickly to maintain control of the group at all times.

Observation

1. Pick your spot and move around to see all the participants/athletes. By maintaining good visual and auditory contact, it is possible to know what is really happening in the group. Constant scanning of the group is the basis for sound observation. Visual contact is the primary way of capturing attention. Although it is important to watch, you must also think about what is going on. You must learn to recognize signs of boredom, disagreement, tiredness, so that you can deal with them quickly.

2. You must learn to pick up indications or signs of sound execution – or the lack of it – and intervene quickly to correct the situation when you need to.

3. When you give feedback, remember the following criteria:
   - Specific, not general
   - Positive and constructive, not destructive or negative
   - Focus on behaviour that can be improved
   - Clear and informative
   - Sandwich approach: positive comments on what the participant/athlete is doing well, things to work at, encouragement or some other positive aspect

Note: Although feedback is important, don’t overdo it, as it is important to allow participants/athletes to practice and perform without intervention or constant interruption.

Conclusion

The competence of the coach can be assessed on the basis of the following criteria:

- The ambiance created in the practice session
- The amount of motor activity of the participants/athletes
- The participants/athletes’ learning
Creating a Positive Learning Environment: General Principles

1. **Interact more with the participants/athletes who need it most**
   Feedback from the coach is intended to inform and encourage athletes who may have limited skills, and who, by definition, find it difficult to execute the skills correctly.

2. **Ensure that participants/athletes are actively involved**
   Too long a time spent organizing the group and the equipment, and, similarly, long periods of inactivity during the practices may lead to loss of interest by the participants/athletes and lead to a lack of discipline.

3. **Adapt the degree of difficulty of the practices to the abilities of the participants/athletes**
   Practices must involve tasks that create a degree of uncertainty in the participants/athletes, i.e. they must have the impression, but not be absolutely certain, that they are able to execute the task correctly. This kind of task presents them with an interesting challenge.

4. **Define what successful performance looks like**
   Without clear objectives to achieve and when they do not know how they are doing, participants/athletes live in a climate of uncertainty and ambiguity which may promote dependency on the coach, or loss of interest in the activity.

5. **Give specific and constructive feedback**
   Coaches must give specific information that will lead the participants/athletes to think. It is better to avoid sharp criticism, as it is well known that this can have a negative influence on learning and the development of the person.

6. **Do not allow a few participants to monopolize attention**
   It is important to recognize that certain participants/athletes condition the coach to react the way they want, and end up expecting all the coach’s attention. Add to this phenomenon the fact that every coach likes some participants/athletes more than others, and it is not surprising to discover that other people feel left out and badly treated when this occurs.

7. **Improve the scope of feedback**
   When coaches give feedback to participants/athletes, they often use stereotypical messages, which often become repetitive and little more than habitual statements. Sometimes you need not give any feedback. The quality and credibility of the feedback are more important than the quantity.
Self-Esteem: Definition and Importance in Sport

What is Self-Esteem?
Self-esteem is the way a person sees himself/herself. Self-esteem can be affected by comments, positive or negative, from others, including messages about the person’s participation in sport.

The Importance of Self-Esteem in Sport
Sport gives participants opportunities to acquire new skills and evaluate their abilities thanks to participation in competition. Participants who have high self-esteem tend to learn better and achieve better performance than those who do not. One of the most important stages in the development of self-esteem occurs between the ages of 6 and 11 years. So, parents, coaches, and other adults who intervene directly with children have an important role to play in the development of self-esteem of young people.

Even comments that seem harmless to the people making them may have a significant impact on the participant. Parents and coaches should always try to find something that the child does well, even though there are times when they must point out things that need to be improved. Positive reinforcement may focus on the way the athlete performs a particular skill, or on aspects which are not directly linked to performance, for example, respecting the rules, being on time, looking after equipments, making others laugh or helping others relax.

As a coach, what you say (verbally or through your body language) is extremely important in the eyes of the participants, and you may have direct influence on their self-esteem. So you must always assess the potential impact of the words you choose to say to participants or the comments you make to them.
Indications that a Child is Lacking Self-Esteem

The following reactions may indicate a lack of self-esteem in a child:

1. The child avoids doing a task or responding to a challenge, or gives up at the first opportunity.
2. The child cheats or lies in order to avoid losing a game or getting a poor result.
3. The child shows signs of regression and acts like a baby or in an immature way for his or her age.
4. The child is extremely stubborn, in order to hide feelings of incompetence, frustration or helplessness.
5. The child makes excuses (“the coach is stupid”) or makes light of events (“this is a dumb sport anyway”).
6. The child moves to the fringes of society by cutting or reducing ties with friends, or other people in general.
7. The child is having mood swings, appears sad, weeps and/or has fits of anger, frustration, or periods of silence.
8. The child makes negative comments about himself/herself such as “I never do anything well”, “Nobody likes me”, “I’m not pretty”, “It’s my fault…”
9. The child is sensitive to praise and criticism.
10. The child is excessively worried about the opinion of others.
11. The child is significantly affected by the negative influence of friends.
12. The child helps too much or not at all in the house.
Suggestions for Helping Young People Develop Self-Esteem

1. Greet each one of the participants warmly when they arrive, and make sure that they are happy to be there.

2. Show them your confidence in their ability to learn.

3. Show them respect.

4. Tell them what they do well.

5. Show them you appreciate them as people.

6. Communicate with them in a positive manner.

7. Engage them in activities appropriate for their level of development. Fix realistic objectives and expectations based on the abilities of the participants.

8. Praise the participants sincerely and often, for example, encourage them three or four times before making corrections. Encourage participants to try without always putting the emphasis on results.

9. Avoid elimination games and games which put pressure on participants. Create situations in which participants have a good chance of being successful.

10. Be precise when you praise their efforts or performance.

11. Congratulate them on their special achievements; recognize each participant’s progress.

12. Smile, wink or nod to participants to acknowledge their efforts. A “pat on the back” is a great way to encourage participants.

13. Give participants responsibility. Have them participate in decision-making and give everyone the opportunity to be the leader. Alternate the role of captain.

14. Seek the opinion of the participants and encourage them to ask questions.

15. Communicate to them the true joy of participating in sport.
Suggestions for Helping Young People Develop Confidence and Self-Esteem in Certain Situations

*Making comments and giving feedback at practice*

1. Give simple precise suggestions.
2. Give participants responsibilities.
3. Encourage participants. Be enthusiastic and constructive.
4. Don’t make it a chore – have fun!

*Before and during practice – Listen to participants*

1. Actively seek their input.
2. Respect their opinion.
3. Show that you are flexible in your point of view.
4. Value the participants’ participation.

*Pre-competition communication*

1. Take the tension out of competition: have the participants focus on what they are going to do rather than the final result.
2. Be enthusiastic and constructive.
3. Recognize participants’ emotional involvement and learn to listen.
4. Remind them what works well.
5. Tell them of your confidence in them.

*After winning a competition*

1. Always make some comments.
2. Enjoy the victory.
3. Underline what has gone well.
4. Point out what can be improved.
5. Lay the foundations for future victories.

*After losing a competition*

1. Recognize effort.
2. Underline the strong points.
3. Point out what can be improved.
4. Be sure participants learn something from the experience.
5. Play down the defeat, remind them that there will be other opportunities and that the important thing is to have done their best.
Glossary of Cycling Terms

A

**ABCs:** Attention, Balance, Control- the basic movements which make up cycling skills.

**ATB:** (all-terrain bike) a mountain bike.

**Apex:** the sharpest point of a corner.

**Attack Position:** the alert and well-balanced position you ride in when you approach, or ride on, rough terrain. It is characterized by bent knees, rear above the saddle, elbows slightly bent, and a raised head.

**Axle:** the shaft on which the wheel or pedal rotates.

B

**BB:** bottom bracket.

**BMX:** Bicycle Moto Cross, short dirt-track racing usually with turns and jumps.

**Bail:** (as in “bail out”) - to suddenly stop to avoid falling, usually by putting one foot down, or sometimes by springing off a falling bike to land on both feet.

**Balanced Position:** coasting with pedals and cranks level (parallel to ground), arms and knees straight and nearly locked, and head up. An energy-saving way to coast on bumpy ground.

**Berm:** an embankment on a trail.

**Bonk:** when you run out of energy due to depletion of carbohydrates.

**Bump:** a skill which involves riders bumping elbows or shoulders. Used to improve confidence before riding in close quarters with others.

**Buzz:** a skill which involves a following rider touching their front tire to the rear tire of a moving leading rider. Named after the noise knobby tires make when they touch at speed. Used to improve confidence before riding in close quarters with others.

C

**CC:** Cycling Canada

**Chainring:** a toothed sprocket attached to the crankarm.
**Clipless Pedal:** a pedal that has spring-loaded cleats that clip to a riders shoe.

**Crankarm:** the levers of a crankset that your pedals attach to.

**Crankset:** the bottom bracket, crankarms, and chainrings go together to make up the crankset.

**Criterium:** a race (usually road, sometimes MTB) with a number of laps around a short course.

**Cross-country:** a traditional MTB race that mixes many types of riding conditions into one course.

**Cyclocross:** an off-road race that involves riders having to dismount and run over obstacles, carrying their bikes. Usually modified road bikes are used.

**D**

**Dab:** to put your foot down while riding so you don't fall over.

**Derailleur:** the mechanical device that moves the chain over the cogs or chainrings, changing gears.

**Doubletrack:** two trails that run parallel to each other (sometimes used interchangeably with “fire road”).

**Downhill:** a type of racing held on steep slopes - fastest rider to the bottom wins.

**Downshift:** shifting to a lower gear.

**Drivetrain:** the parts of a bike that includes the crankarms, chainrings, bottom bracket, front derailleur, chain, rear derailleur, and freewheel.

**E**

**Endo:** a crash that involves you flying over your handlebars.

**F**

**Flat pedal:** A pedal without a means to lock the shoe, ie no clip or cleat-engagement mechanism. Used for BMX, MTB tricks and skills, and general cycling.

**Front Wheel Lift:** To lift the front wheel over an obstacle by quickly weighting and unweighting the front wheel then pulling the handlebars to the chest, in a continuous movement.
**Freewheel:** the cluster of cogs on the rear wheelset that allows you to stop pedalling while the bike is still moving forwards.

**Granny Gear:** the lowest gear ratio you can ride with (smallest chainring with the largest cassette cog).

**Granny Ring:** The smallest of your chainrings.

**IMBA:** International Mountain Bicycling Association: an organization dedicated to the building and protection of mountain bike trails.

**Kick:** a short power-stroke to the pedals, less than one full revolution.

**Limbo:** To duck under an obstacle while riding.

**Mass-start:** when a large group starts a race or ride together.

**Manual:** A lift which raises the front wheel so the rider can jump the bicycle, thus landing on the rear wheel (or both together), and not endo.

**MTB:** Mountain bike.

**NCCP:** National Coaching Certification Program. Canada's coach development and education program.

**Off-Camber:** sloped ground that makes handling difficult.
**P.A.S.S.**: Power, Agility, Spatial Skills- groups of integrated cycling skills built upon the ABCs.

**Preload**: to weight part of the bike by body weight transfer, usually the front fork.

**Ratchet**: a riding technique in which you pedal in partial strokes in order to clear obstacles.

**Reach**: the distance from the end of the stem to the other end of the top tube.

**Ready Position**: Coasting with pedals and cranks level (parallel to ground), knees and elbows flexed to absorb shock, fingers on brakes, and head up. The position to be in when you want to be alert and ready to move quickly. Also called “attack position” or “cat position” ie ready to spring.

**Saddle**: the seat that the rider sits on.

**Singletrack**: a narrow mountain bike trail that must be ridden single file.

**Shoulder check**: To look over one’s shoulder to make sure you are not being overtaken by other traffic (bicycle or car).

**Soft pedal**: To reduce force on the pedals while continuing to pedal- useful in helping gear shifting in high-load situations (eg climbing).

**Standover Clearance**: the distance between the top tube and the rider's crotch.

**Switchback**: a turn on a hill that is too steep to be climbed without zig-zagging.

**Time trial**: a race against the clock. Riders start one at a time.

**Trackstand**: a riding technique that involves the rider stopping completely without putting a foot down.

**Upshift**: to shift into a higher gear.
W

**Wash Out:** when you lose traction on one or both wheels and slide.

**Wheelie:** a riding technique in which the rider lifts the front tire and rides on the rear wheel.
THE BMX START

Before the Start: Preparation

Physical Preparation

Before starting it is important to prepare correctly, following these steps:
- Slow riding: to warm-up the muscles
- Stretching: to make the muscles nice and supple and help prevent muscular strains and tears
- Rolling Snaps: to practice the necessary movement patterns
- Standing Snaps: concentrating on 2\textsuperscript{nd} and 3\textsuperscript{rd} pedal strokes.

Inspecting the Gate

It is best to leave nothing to chance. A good inspection of the gate will help reduce the chance of surprises:
- Gate height
- Speed of fall
- Angle of gate
- Angle of starting pad
- Grip of gate
- Grip of starting pad
- Painted numbers

Starting on Wet Gates:

- Keep tires clean
- Start to the side of grooves
- Lift pedal height
- Apply smooth pressure when snapping
- Keep weight over back wheel

Before the Race

Prior to each race it is important for the rider to mentally prepare themselves for the start of each race, using mental imagery skills to:
- Anticipate the time of release of the gate.
- Picture themselves coming out of each possible lane and the advantages associated with each lane.
Starting Stance

Initially, set the pedals in line with level ground and adjust higher or lower depending on the angle of the starting pad (ie.: Higher for steep gates and lower for flatter gates).

The riders back should be straight, hips back over the back wheel, head up and shoulders wide. Elbows and legs should be slightly bent to avoid locking of joints, while the hands should project vertically from the tops of the grips.

The bike should be set up straight onto the gate, so the rider can make a straight exit down the starting ramp.

Timing the Start

The goal in timing the gate, is to go out with the gate as it is released. Due to human reaction times, the rider must anticipate the release of the gate to achieve this goal.

To help achieve better timing the rider should follow these points:
- Pre-load the body by shifting the hips and upper body back
- Begin movement forward prior to the snapping action (pre-snap)
- At the right instant shoot the body forward, and make a maximum first pedal stroke as outlined in the snap.

The Snap

Once the riders have developed their timing of the gate start, the next step is to develop the gate start action termed “the snap”.

At the right instant the rider must throw their hips and shoulders forward into the front of the bike. The head and shoulders must stay forward for the first Pedal stroke to generate the maximum amount of leverage, to help make the first pedal stroke as powerful as possible.

The rider must continue to pull through on the first pedal to the 9 o’clock pedal position to help generate a smooth transition for the second pedal.

The rider must then transfer their body weight back over the back of the bike for the third pedal stroke onwards, so they can develop a good rhythm as quickly as possible.
2. The Snap

3. Acceleration
TIPS FOR COACHING THE BMX START

THINGS FOR THE COACH TO LOOK FOR

- Bike Set Up
- Rider’s Stance
- Pre-loading
- Pre-snap
- Anticipation
- Snap Technique
- 1st, 2nd and 3rd Pedal stroke technique
- Gearing (hard or easy)
- Crank length

QUESTIONS TO ASK THE RIDER

- Is your pedal too high/low?
- Where are your feet positioned on the pedals? Is your back straight?
- Are your hands wrapped forward on the grips?
- Are your elbows and knees bent only slightly?
- Are you timing the snap too early/late?
- Is the front wheel coming up too high?
- Is the second pedal stroke too slow?
- Are you off balance during the snap?

GAMES AND DRILLS FOR STARTING

- Deadman starts without the gate
- Deadman starts from the gate
- Starting on the opposite foot Rider watching the lights
- Full cranking (3 o’clock to 9 o’clock) Increase the gearing
- Varying tracks/gates
JUMPING TECHNIQUES

Jumping is one of the most difficult BMX skills to master. There are many ways of negotiating jumps from pumping, speed jumping, double jumping and manualling to more advanced techniques like bump jumping.

In this section we will examine these different techniques.

PUMPING

This is the most common of all jumping techniques, and it is a very important skill for the rider to possess.

When 'pumping' a jump the rider's main goal should be to keep both wheels in contact with the ground. This will be achieved by the rider compressing on the up-ramp of the jump and then extending on the down-ramp. The arms and legs of the rider should act like shock absorbers on a car.

When pumping, the rider should have their cranks in the level position; however they should be ready to start pedaling as soon as possible down the backside of the jump.

Pumping can be used by all BMX riders from juniors all the way through to seniors and masters. It is a skill which can be used on many different types of obstacles and its use will depend on the rider’s speed over the obstacle and their current skill level.

Get your riders to practice pumping at your next training session by having a rolling race for distance around the track. No pedaling and plenty of 'jumping' will be a great drill for your riders.

JUMPING

There are two different, basic jumping techniques used in BMX. These are: jumping at speed which doesn't require the rider to lift but just to steer the bike (explanation) and diagram shown on page 42; and jumping which requires the rider to lift on take-off.

Lifting on take-off

As a rider increases their skill, speed and confidence they will be able to jump obstacles of greater distance and size when jumping these obstacles the rider will often need to lift on take-off in order to clear the obstacle.

The lifting technique requires the rider to slightly compress their body prior to encountering the up-ramp and then extend their body while lifting the bicycle off the up-ramp. The rider is actually performing the technique used in "bunny hopping" but this time off an up-ramp.
When the rider lands on the other side of the obstacle, they will need to “compress’ and ‘soak up’ the landing, once again acting like a shock absorber as was the case in pumping.

**Manualling**

Manualling through a jump is simply wheeling through the centre of double jumps, ensuring to keep the back wheel on the ground as the front wheel clears the peak of the second obstacle. Some points when manualling are:

- Press hard with the legs on the down ramp of the first obstacle
- Ensure the front wheel remains high enough to clear the second obstacle
- If the jump is smooth, try pedaling in the middle to gain extra momentum
- Maintain 1 or 2 fingers on the brake to help prevent looping out

Once the front wheel clears the second obstacle, push down hard on the front of the bike to help gain a smooth exit.

**Speed Jumping**

1. As the rider approaches the jump, they need to pull the bike up into a power wheelie. Keeping their eyes locked on the lip of the jump, with full concentration on front wheel and pedal clearance. (If either front wheel or pedals hit the lip, the rider could be in for a spectacular crash.)

2. When the rider encounters the jump, they must keep the front wheel as close to the lip as possible. Compress the legs on contact with the lip, crouch the upper body and allow the bike to rise up into the body while riding over the highest portion of the jump.

3. The rider is fully compressed with the bike completely tucked in. The head, trunk and butt are still maintaining a straight line. At this stage the arms and shoulders begin pushing the front end of the bicycle down the backside of the jump. With the rider’s weight still being maintained well back to prevent the rider: being thrown over the handlebars.

4. The rider exits the jump by pulling their body forward to resume the power pedaling position. Through the whole jump the rider’s upper body travels through a straight horizontal plane. To achieve this it is important the rider relaxes their arms and legs so they they act as shock absorbers and keeps the body over the rear of the bike so the bike can ride up into the body over the jump.
SPEED JUMPING

1. As the rider hits the lip notice how the knees and elbows are bent ready to allow the bike to come up into the rider’s body.
2. Once in the air the rider compresses the body low over the rear wheel, to allow the bike to maintain a flat trajectory over the jump.
3. At this point the arms and upper body should be pushing the bike forward to line it up with the landing ramp.
4. Exit the jump by resuming the power pedaling position as quickly as possible

Junior Riders often prefers to pump through jumps as they don’t always have the speed or strength to double jump many of the larger jumps.

Bump Jumping

Bump jumping is an advanced technique, which is used by highly skilled riders and not beginner BMX riders.

This technique is used on jumps which have a steep up-ramp and little downramp for the riders to land on. These jumps are usually quite short. If hitting a certain jump (say a pair of doubles) in the normal fashion throws a rider into the air in such a way that it was difficult to get back down and land on the landing ramp, then bump jumping may be an option for the rider.

The bump jump technique involves the rider approaching the obstacle as though they are speed jumping it. Thus the rider has lifter their front wheel into the air and has gone up the face of the jump with only their back wheel on the ground. When the rider’s bike gets to the crest of the lip, the back wheel will be flicked up and the front end of the bike will come down. The rider will now be in the air as in the jumping technique. The rider should land as in the basic jumping technique fashion.
When the back wheel gets flicked into the air and the front wheel comes down, it is of extreme importance that the rider doesn't have too much weight over the front of the bike. The reason for this is the front wheel is going to drop and could easily go into the next jump if performed incorrectly.

This technique is only suitable on very short jumps which the rider hits at very high speed. The faster the rider is traveling the easier performing this skill will be.

**TIPS FOR COACHING BMX JUMPING SKILLS**

**WHAT COACHES SHOULD LOOK FOR:**

- Body position during the approach to jumps
- Speed of approach
- Speed and body position while negotiating the jump
- Front wheel height
- Bike positioning and angles
- Landing
- Pedaling after the obstacle

**QUESTIONS TO ASK THE RIDER:**

- Did you approach the jump with enough speed?
- How close did you pedal to the bottom of the jump?
- Was your body in a smooth tucked position?
- Did the front wheel rise up too high?
- Were you endo-ing?
- Were the pedals horizontal to the ground?
- Was the bike straight going over the jump?
- How soon did you start pedaling after landing?

**GAMES AND DRILLS FOR JUMPING:**

- Bunny-hops: Flat ground!
- Practice pumping over jumps
- Practice lifting for height over jumps
- Coaster wheelies using brakes
- Sit-down wheelies using brakes
- Practice jumping with two fingers on the brake lever
- Scootering over jumps using brakes
- Style jumping

The ability to control the bike In the air is best developed through practicing style jumping.
CORNERING

When we think about cornering and passing, we need to think about lines.

When going around a turn it is important to travel in a consistent arch, while still attempting to either protect a lead, pass the rider in front of you, or just negotiate traffic. In general, there are four major lines around turns:

Inside Swoop: This is also referred to as the block pass, as it is an effective way to pass another rider and block their exit to the turn.

Outside Swoop: Also referred to as the block pass, and used effectively on riders protecting the inside line.

Railing Line: Is usually around the centre of the turn so the rider can maintain maximum speed. Inside Line: This is also referred to as the lead line and is the line the rider will generally take to protect their lead. This is generally the line which riders will use in the first comer of a BMX track.

The outside and inside swoops are depicted on the following page.

The easiest way to explain cornering and passing is to list the things riders should be doing and the things they should not be doing:

Should:
- Enter turns approx. 1 m from the inside
- Try to grab an extra pedal going in
- Shift more weight over the front wheel
- Prepare to impact against other riders in close traffic
- Favour the inside line when protecting a lead

Should not:
- Follow the rider in front, in case they wash out
- Throw elbows at other riders
- Go wide when protecting a lead
- Worry about traffic as it will affect your concentration
- Pull suicide passes, they only backfire.
TIPS FOR COACHING CORNERING

CORNERING: WHAT COACHES SHOULD LOOK FOR

- Approach
- Lines
- Speed
- Angle of Bike
- Position of Pedals
- Exit

QUESTIONS TO ASK THE RIDER

- Were you pedaling too deep into the corner?
- Are you entering the corner using the best line?
- Did you cover any inside opportunities?
- Were you using the brake correctly?
- Did you negotiate the corner at a reasonable speed?
- Are you placing the bike on an angle?
- Are you ensuring the inside pedal is in the upright position?
- Did you commence pedaling out of the corner at the earliest possible opportunity?

GAMES AND DRILLS FOR CORNERING

- Sprinting around one marker dome to another
- Practice late braking drills
- Practice various lines in corners
- Riding the track in the opposite direction
TURN TACTICS

THE TWO BEST PASSING LINES ON A STANDARD 180 DEGREE BERM:

1. BLOCK PASS or INSIDE SWOOP
2. OUTSIDE SWOOP

Foot back up.
Pedal hard!

Stop pedaling.
Brake hard if necessary

Careful smooth braking. Foot out if necessary to block or stabilize
BMX BICYCLE SET-UP

As a BMX coach, you may be required to assist BMX competitors in setting up their bike for competition. In this chapter we'll look at some areas where adjustment may be necessary, and provide you with information to assist in setting up the rider's bike correctly.

Getting Started

Before our new BMX rider with their brand new BMX bike from the local bike shop can compete they will need to remove a number of items, including reflectors, brackets, chain guard, etc. Having now removed a few items we need to add some padding which covers the stem, brace bar on the handlebars and the top frame of the bicycle.

Now that our rider has satisfied the safety requirements we can look further into the set-up of the rider's bike. Whether the rider is a brand new beginner or a seasoned BMX racer you can still provide assistance in setting up their machine for battle.

Frame Sizing

Making sure the rider is using the correct frame size is very important. Too small a frame and the rider will be cramped; too large a frame and the rider will be stretched out and unable to control the bike effectively. The table below, courtesy of Dan's Competition, lists frame sizing along with stem and bar sizing for riders of certain heights. This table could be used to assist you in determining if a rider is on the correct sized frame. The coach's visual skills should also be utilized when determining correct frame sizing.

<table>
<thead>
<tr>
<th>RIDER SIZING</th>
<th>FRAME SIZE</th>
<th>STEM LENGTH</th>
<th>BAR RISE</th>
<th>BAR WIDTH</th>
</tr>
</thead>
<tbody>
<tr>
<td>RIDER HEIGHT</td>
<td>SIZE</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4' 0&quot; and under</td>
<td>Micro-Mini</td>
<td>Mini</td>
<td>2&quot; -2~&quot;</td>
<td>20&quot; -22&quot;</td>
</tr>
<tr>
<td>4'6&quot; - 4'10&quot;</td>
<td>Mini</td>
<td>Mini-Mini XL</td>
<td>2&quot; - 3 &quot;2&quot;</td>
<td>21&quot; – 23&quot;</td>
</tr>
<tr>
<td>4'4&quot; - 4'10&quot;</td>
<td>Junior</td>
<td>Mini XL-Pro</td>
<td>3&quot; - 5&quot;</td>
<td>22&quot; - 25&quot;</td>
</tr>
<tr>
<td>4'8&quot; - 5'4&quot;</td>
<td>Expert</td>
<td>Pro</td>
<td>5&quot; - T'</td>
<td>25&quot; -27&quot;</td>
</tr>
<tr>
<td>5'0&quot; - 5'10&quot;</td>
<td>Pro</td>
<td>Pro-Pro XL</td>
<td>7&quot; - 8&quot;</td>
<td>27&quot; - 28&quot;</td>
</tr>
<tr>
<td>5' 10&quot; and over</td>
<td>ProXL-XXL</td>
<td>ProXL-XXL</td>
<td>7&quot; - 8&quot;</td>
<td>28&quot;</td>
</tr>
</tbody>
</table>

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Crank Length

The rider’s crank length plays a very important role in BMX, as crank length gives the rider leverage for power and ultimately speed. The longer the crank the longer the lever and thus the better tool for accelerating quickly. However if a rider uses cranks which are too long for their legs they will be unable to 'spin' the cranks quickly enough, which will lower their maximum speed.

Therefore the correct crank length for a rider will provide both good acceleration and the ability to be spun at high speed. The table below may be of assistance in determining the correct crank length for a rider.

- Watch your riders pedal down a straight from behind, and if their hips move up and down whilst pedaling it’s probably safe to say that their cranks are too long. Also when pedaling they will look like they are 'stepping' and not spinning in a fluid motion.
- A rider with cranks that are too short for them will appear to be pedaling with only the lower portion of their legs and not utilizing the full potential of their quadriceps.

<table>
<thead>
<tr>
<th>CRANK SIZING</th>
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<tbody>
<tr>
<td>RIDER INSEAM</td>
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<tr>
<td>20&quot;</td>
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<tr>
<td>21&quot;</td>
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<td>22&quot;</td>
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<td>32&quot;</td>
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<tr>
<td>34&quot;</td>
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</tbody>
</table>
Gearing

The BMX racers’ gearing plays a vital part of their performance in BMX competition. Gear ratios can be changed by altering the amount of teeth on the front chainwheel, or on the rear sprocket. The higher the number of teeth on the front chainwheel the harder or higher the ratio, and also the lower the number of teeth on the rear sprocket the harder or higher the ratio.

By changing only the front chainwheel from a 43 to a 44 and leaving the back sprocket as a 16 tooth we have raised the gearing by one tooth. However when we start changing rear sprocket sizes we are altering the gearing in a different way. By lowering a rear sprocket from, lets say a 16 to a 15, we will in effect be doing the same as raising the front chainwheel by approximately two and a half teeth. As you can see this would be the process used to obtain a gear ratio of half a tooth difference.

Note: Two different gear combinations can produce an equivalent ratio, however in fact these ratios will perform quite differently. For example using a 20 X 1.75 wheel and tire combination:

A gear combination of 46 x 16 will produce a ratio of 56.1
A gear combination of 43 - 15 will produce a ratio of 55.9

However the gear with the smaller cogs, both front and rear will be easier for the rider to accelerate and won’t have the same top-end as the 46 - 16. The reason for this is the smaller cogs will give the rider more leverage, as in effect their lever (read cranks) will perform as a longer crank as compared to the other gear combination. Using this knowledge can be quite useful in obtaining the correct gear ratio for an individual rider. The coach should in essence gear their rider with a suitable gearing to get them to the first comer in the quickest possible time. It can be said that the first straight of a BMX race is approximately 75% of the race, thus the coach should gear their riders accordingly. It is much easier to win a BMX race from the front as compared to mid-field or the back of the pack.

Different riders will be better suited to different gearings, and it is the coach’s job to ensure that each of their riders has the best possible gear ratio to suit their individual attributes.

Chain Tension

One of the most important bicycle maintenance areas is that of chain tension. A chain which has insufficient tension is likely to jump off under hard acceleration, and a chain which has too much tension placed on it will increase the load and resistance associated with pedaling.

The chain tension can easily be adjusted by moving one side (or both) of the rear axle either forward or back in the drop-out. Care should be taken to ensure that the wheel is
positioned straight in the bike frame when achieving correct chain tension.

Chain tensioner devices are available and these serve two purposes. They can be used to easily adjust correct chain tension whilst ensuring the wheel is positioned straight; as well as they ensure the wheel cannot move forward during acceleration which could cause the chain to lose tension and jump off.

**Brakes**

Once the correct chain tension and rear wheel positioning has been obtained the brakes should be adjusted to suit.

Firstly, the brake pads should be adjusted so that the full surface area of the pad comes in contact with the braking surface. The pads can be ‘toed-in’ slightly, which will aid in braking performance and can also reduce brake squealing. It is important to ensure that brake pads, or essentially the brake-arms, are positioned an equal distance from the rim surface to maintain optimum braking power.

The brake efficiency and ‘feel’ is adjusted with the spacing between the brake pads and the rim surface. Ideally for the brakes to feel responsive the pads should be positioned close to the rim surface to take full advantage of the brake-arms leverage. Take care that the rim does not touch the brake pads whilst rotating, thus causing unwanted resistance to the rider. It is essential that the rear wheel be true and straight to assist in the brake set-up procedure.

All cable slack should be taken from the brake lever and calipers thus ensuring a responsive feel. Also both the braking surfaces should be clean and free from oily substances which would minimize the brakes efficiency.

**Handlebar Width and Height**

Correct handlebar height and width is a very important set-up area of the BMX rider's bicycle, as bike control and maneuverability is largely related to this area.

The correct handlebar width for a rider will generally be slightly wider than the particular rider’s shoulder width. Bars which are too wide or too narrow will not allow the rider to pull on the bars in the most efficient way, and will also make turning corners more difficult and cumbersome than it should. A rider with wide handlebars could find pack riding more difficult, both in fitting between riders and also maintaining balance when bumping and rubbing elbows.

Handlebar height will vary for BMX competitors and is largely related to the height of the rider. A general rule in setting handlebar height is that the top of the handlebar grip should be in close proximity to the rider’s hip bone when standing beside their bicycle. Once again placing the handlebars too high or too low will not allow the rider to make use of all their power and could also make handling more difficult. Handlebar height can
be adjusted in two ways:

- By the handlebar rise of the selected bars
- By lowering or raising the head-stem (in the case of conventional headsets); or
- By placing more or fewer spacers either above or below the head-stem (in the case of Ahead headsets).

**Handlebar Positioning**

The positioning of the rider’s handlebars is also an important procedure in obtaining the best possible handlebar set-up. The handlebars should be positioned in a vertical or slightly back from vertical position (when viewed from the side). This will give the rider both good pulling power on the bars and also good bike control. The coach should keep in mind that the rider will have slightly better bike control with the bars laid back slightly, however they shouldn't be positioned too far back so as to lose pulling power on the bars.

Should the rider require the bars in a position which differs greatly from this then they should look into possibly changing their head-stem length or should this not correct the problem then obviously the rider’s current frame size needs to be inspected.

**Seat Height**

The correct positioning of seat height should allow for the rider to lean against their seat with their knees while in the standing position. The rider will use this leaning on the seat with their knees /inner thigh when leaning the bike through turns and possibly may lean on the seat when balancing on the gate. The rider will be required to move their bodyweight directly over the rear of the bike during the course of a race and should the seat be positioned too high then this may not be possible. As a result the rider will be forced into an incorrect body position and could fall as a result.

**Tire Pressure and Sizing**

The riders tires are an important bicycle component and as they provide the contact point with the tracks surface, their tread level and condition is quite important.

Q. “What's the correct wheel and tire size for a rider”?

A. A rider should use the narrowest wheel and tire combination possible, which still enables them to have ample traction throughout a BMX race (at the start, when pedaling and in turns).

Keeping this in mind a rider may require a larger tire on the front to assist with cornering, as opposed to a smaller tire on the rear which would still provide ample traction.
# WHEEL SIZING

<table>
<thead>
<tr>
<th>MAXIMUM WEIGHT</th>
<th>RIM WIDTH</th>
</tr>
</thead>
<tbody>
<tr>
<td>LBS</td>
<td>KGS</td>
</tr>
<tr>
<td>0 - 85 LBS</td>
<td>0 -38 KGS</td>
</tr>
<tr>
<td>85 -100 LBS</td>
<td>38 -45 KGS</td>
</tr>
<tr>
<td>100 -120 LBS</td>
<td>45 -55 KGS</td>
</tr>
<tr>
<td>120-150 LBS</td>
<td>55 -68 KGS</td>
</tr>
<tr>
<td>150 LBS +</td>
<td>68 KGS+</td>
</tr>
</tbody>
</table>

The correct tire pressure for each rider will vary depending on their actual weight/height and their riding characteristics. However it should be kept in mind that a tire pressure which is too low will create unwanted drag and resistance. It could be considered normal practice to have a slightly lower tire pressure in the front wheel over the rear to allow for more rubber to grip the ground when encountering turns.

The rider and coach should experiment with tire pressures to obtain the best combination for the rider, keeping in mind that this combination may change as track surfaces change from one track to another.

Some basic tire pressures guidelines that you could use as a starting point are:

- 1 1/8" wheel and tire: 55 - 80 PSI
- 1 3/8" wheel and tire: 45 -70 PSI
- 1.75" wheel and tire: 45 -70 PSI
Canadian Cycling Association
Long-Term Athlete Development
Winning BMX
We acknowledge the financial support of the Government of Canada through Sport Canada, a branch of the Department of Canadian Heritage.
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1 – Winning BMX

What does it mean to win at BMX?

BMX is really two sports. For young riders, up to about 12 years old, BMX racing is fun, fast and competitive. Winning races may seem important, but what really counts is fun, friendship, developing skills, and learning the lessons of sport. By participating in BMX as one of many sports, the rider develops physical literacy, the basic movement and sport skills which are the foundation of athleticism. Winning in this BMX means building great skills, remaining physically active, and developing a life-long love of cycling and sport. We call this “BMX for Fun and Skill”.

There is a second sport we call “BMX for Performance”. When the rider is ready, beginning around age 13 or 14, he or she can start developing the physical abilities, competition skills and experience that leads to World Championship and Olympic podiums. Reaching the top in this sport takes years of hard work and dedication. It demands excellent skills, athletic abilities, speed and power. There is a secret to success: the well-developed BMX skills from “BMX for Fun and Skill” and the overall athleticism learned in other sports is the first step onto the podium. Without those skills, it is difficult to reach the highest levels.

This document is a guide to winning in both kinds of BMX. It is based on principles of Long-Term Athlete Development. LTAD is based on sport science research combined with the practical experience of working with thousands of athletes and coaches to develop a comprehensive set of principles for effective athlete development. LTAD is more than a model - it is a system and philosophy of sport development. Since athlete and participant development is at the core of the Canadian Cycling Association’s mission, LTAD is key to everything we do, whatever our role or level within the cycling system. Our obligation is to help every Canadian cyclist fulfill their aspirations and be the best they can be.

Our goal is not simply to help Canadian BMXers onto international podiums, but to ensure that every athlete can enjoy participation in cycling for a lifetime.
2 – The BMX Long-Term Athlete Development Model

LTAD is a model of life-long development in which the athlete passes through stages, from Active Start to Active for Life. All individuals pass through the Active Start, FUNdamentals and Learn to Train stages from birth through adolescence, and acquire a critical foundation of physical literacy or competence in basic movement and sport skills. From there they progress as far as their will and potential carry them. Only a few reach the level of high performance of the Train to Win stage. The CCA LTAD Volume I document outlines the stages of development for cyclists including BMX. You can also find other resources at www.canadiansportforlife.ca

Compared to other types of cycling and many other sports, BMX riders often begin at a very young age. This places a special responsibility on BMX coaches, leaders, and parents of young BMX riders. It is essential to understand that when working with young participants, we are not simply preparing them for our sport, but for all sports- and that by offering well-rounded development that builds physical literacy, we are also preparing them for a more active, healthy lifestyle. Equally important, young athletes of the same chronological age can vary widely in their development, ability to learn skills, and emotional readiness for competition. Over-emphasis on skills and tactics the athlete is not ready to learn, or intensive competition, can take the fun out of BMX. Every young athlete deserves a program appropriate to their individual stage of development.

The BMX Cycling model has 9 stages, which take a rider from learning to ride a bicycle through to participation for life. Not all cyclists pass through the Excellence stages; after learning the basics in the early stages an individual can move to the Active for Life stage at any time. Active life-long participation is as important as competitive success.
3 – BMX and Growth and Development

Long-term Athlete Development (LTAD) is a pathway for optimal training, competition and recovery throughout an athlete’s career, particularly in relation to the important growth and development years of young people.

LTAD stages are based on “sport years” which is the time spent developing in sport. The prior sport experience of the athlete, combined with his/her individual stage of physical, mental and emotional development, is much more important than chronological age in determining what the athlete is ready for. Notice that the overlap between “sport years” in each stage may permit some athletes to progress through more than one stage per year. It is strongly recommended the athlete not be “pushed” through more than two stages per year, no matter how “exceptional” they seem to be.

It is also very important to take advantage of sensitive periods of adaptation as the child grows and develops. The mind and body are most able to develop in specific ways at specific times. Skills, for example, are learned quickly from about age 8 to 12. Physical strength, power and endurance can be developed after the growth spurt, also called “Peak Height Velocity” (PHV). See the glossary for definitions.

Diagram: Enhanced Periods of Adaptation in Relation to Rate of Growth (courtesy Canadian Sport for Life)
4 – Developing Winning Skills

BMX skills, including starting, pedaling at high speeds, cornering, passing, and jumping, are the foundation of winning BMX. These skills are best developed when the athlete is from 8 to 12 years old, a sensitive period of adaptation for the body and mind. High performance in BMX is impossible to reach without these skills, and the skills can transfer to other kinds of cycling and to other sports. It makes sense to focus on developing winning skills.

What is the best way to develop those winning skills? Here are the lessons learned by top coaches and sport scientists:

- Skills learning can only occur if the learner is interested and engaged. Since young children have short attention spans, the best learning is through fun games specifically designed to build skills.

- Even in older children and adults, skills are learned best when learners use an experimental approach, trying out variations of the skill to see what works best. The coach provides feedback only when performance falls outside pre-determined limits, and questions the athlete afterward, effectively asking the athlete to discover what works for him/herself.

- Randomized practice, “difficult-first” instruction, and use of questioning and video to enhance feedback are all part of top skill development programs.

- When learners are highly motivated, they engage in “deliberate practice”. This is a highly focused, individual approach of trying a skill hundreds of times to perfect it. Nobody can make an athlete use deliberate practice—the urge comes from within. When a coach sees an athlete engaging in deliberate practice, he or she should support and guide it.

What does this look like in BMX? Here are some examples:

- Riders using flat pedals (not clips) for all kinds of skill learning, right through their careers. By using flat pedals the rider has to learn correct form for many skills including hops, manuals and jumps, as he/she can’t pull the bike up by the pedals.

- Deliberate use of participation in other sports to develop well-rounded athleticism on land, in water, and on ice and snow, developing balance, agility, object-control (e.g. ball- or puck-handling) and eye-hand and eye-foot coordination.

- Riders playing all kinds of coach-led games, on and off the bike, to develop a wide range of skills.

- A good mix of relaxed fun and intense concentration during activities.

- Coaches who know how to mix up activities and try different approaches to help riders “get” a skill— not just by telling, but by demonstrating, trying different movements, and watching different situations and advanced riders.

- Advanced riders helping newer riders out, and being role models for them.

The following BMX Skills Grid shows a repertoire of BMX skills and suggests when they can be developed.
# BMX Skills Development Grid

<table>
<thead>
<tr>
<th>Pathway</th>
<th>Fundamental</th>
<th>Learn to Train</th>
<th>Train to Train</th>
<th>Learn &amp; Train to Compete</th>
<th>Learn &amp; Train To Win</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Chronological Age – M</strong></td>
<td>6 7 8 9</td>
<td>10 11 12</td>
<td>13 14 15</td>
<td>16 17 18+</td>
<td></td>
</tr>
<tr>
<td><strong>Chronological Age – F</strong></td>
<td>5 6 7 8</td>
<td>9 10 11</td>
<td>12 13 14</td>
<td>15 16 17+</td>
<td></td>
</tr>
<tr>
<td><strong>Training Age (Sport Years)</strong></td>
<td>0 – 3 years</td>
<td>1 – 5 years</td>
<td>3 – 6 Years</td>
<td>4 – 9 years</td>
<td>&gt;8 years</td>
</tr>
</tbody>
</table>

## BMX Skills Development

**ACQUISITION (A)**
- Introduction of skill (movement patterning) Cognitive Stage

**CONSOLIDATION (C)**
- Stability of skill through practice (correct execution in variable conditions) Associative Stage

**REFINEMENT (R)**
- Fine tuning of skills (Minor improvements and creative solution under all conditions) Autonomous Stage

### NCCP Coaching Contexts

<table>
<thead>
<tr>
<th>NCCP Coaching Contexts</th>
<th>Community Initiation</th>
<th>Competition – Introduction</th>
<th>Comp-Dev</th>
<th>Comp-HP</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Foundation Skills</strong></td>
<td></td>
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<tr>
<td>Balance</td>
<td>A – C</td>
<td></td>
<td>R</td>
<td></td>
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<tr>
<td>Agility</td>
<td>A – C</td>
<td></td>
<td>R</td>
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<tr>
<td>Run Jump Throw+</td>
<td>A – C</td>
<td></td>
<td>R</td>
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<tr>
<td>Basic cycling skills</td>
<td>A – C</td>
<td></td>
<td>R</td>
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<tr>
<td><strong>Motor Skills</strong></td>
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<tr>
<td>Increase leg speed</td>
<td>A – C</td>
<td></td>
<td>R</td>
<td></td>
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<tr>
<td>Balance-gate</td>
<td>A – C</td>
<td></td>
<td>R</td>
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<tr>
<td>Agility on bike</td>
<td>A – C</td>
<td></td>
<td>R</td>
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<tr>
<td><strong>Technical Skills-Start</strong></td>
<td></td>
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<tr>
<td>Body position</td>
<td>A – C</td>
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<tr>
<td>Pedal position</td>
<td>A – C</td>
<td></td>
<td>R</td>
<td></td>
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<tr>
<td>Pre-load/pre-snap</td>
<td>A</td>
<td>C – R</td>
<td></td>
<td></td>
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<tr>
<td>Snap</td>
<td>A</td>
<td>C – R</td>
<td></td>
<td></td>
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<tr>
<td>First pedal strokes</td>
<td>A</td>
<td>C – R</td>
<td></td>
<td></td>
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<tr>
<td>Technical Skills-Jumping</td>
<td>Pumping &amp; rolling</td>
<td>A</td>
<td>C – R</td>
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<tr>
<td>Bunny hop (flat pd)</td>
<td>A</td>
<td>C – R</td>
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<tr>
<td>Rear wheel hop</td>
<td>A</td>
<td>C – R</td>
<td></td>
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<tr>
<td>Pre-manual</td>
<td>A</td>
<td>C – R</td>
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<tr>
<td>Manual (single)</td>
<td>A</td>
<td>C – R</td>
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<tr>
<td>Manual (multiple)</td>
<td>A</td>
<td>C – R</td>
<td></td>
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<tr>
<td>Wheelie (coaster)</td>
<td>A</td>
<td>C – R</td>
<td></td>
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<tr>
<td>Wheelie (seated)</td>
<td>A</td>
<td>C – R</td>
<td></td>
<td></td>
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<tr>
<td>Speed jump single</td>
<td>A – C</td>
<td>R</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Speed jump double</td>
<td>A – C</td>
<td>R</td>
<td></td>
<td></td>
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<tr>
<td>Jumping style</td>
<td>A – C</td>
<td>R</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Technical Skills-Cornering</td>
<td>Basic-lean, pedals</td>
<td>A – C</td>
<td>R</td>
<td></td>
</tr>
<tr>
<td>Speed control</td>
<td>A – C</td>
<td>R</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pedal positioning</td>
<td>A – C</td>
<td>R</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Contact with riders</td>
<td>A</td>
<td>C – R</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tactical Skills</td>
<td>Track posit’n start</td>
<td>A</td>
<td>C – R</td>
<td></td>
</tr>
<tr>
<td>Cornering lines</td>
<td>A</td>
<td>C – R</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Assess track layout &amp; choose strategy</td>
<td>A</td>
<td>C</td>
<td>R</td>
<td></td>
</tr>
<tr>
<td>Assess track layout &amp; choose gearing</td>
<td>A</td>
<td>C</td>
<td>R</td>
<td></td>
</tr>
<tr>
<td>Mental &amp; Decision Skills</td>
<td>Use track layout to improve position</td>
<td>A</td>
<td>C – R</td>
<td></td>
</tr>
<tr>
<td>React to crashes and maintain speed/position</td>
<td>A</td>
<td>C – R</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Visualization</td>
<td>A</td>
<td>C – R</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Focus &amp; re-focus between heats</td>
<td>A</td>
<td>C</td>
<td>R</td>
<td></td>
</tr>
<tr>
<td>Develop ideal perf state (IPS) routine</td>
<td>A</td>
<td>C</td>
<td>R</td>
<td></td>
</tr>
</tbody>
</table>
## 5 – The Stages of BMX for Fun and Skill

The following table shows key BMX developmental factors for the first LTAD stages from Active Start to Train to Train, and Active for Life. For more information on Cycling’s LTAD refer to the CCA LTAD Volume 1. Stages are based on both chronological age and “sport years” which is the time the athlete spent developing in sport.

### Defining the Stage
- **Active Start**
  - Age 0 - 5
  - 0 - 1 years in sport
  - “Develop movement literacy” Participant builds basic movement skills though a wide variety of unstructured fun physical activities on land, in water, and sliding on snow and ice.
  - Later in the stage the participant learns to ride a bike.

- **Fundamentals**
  - Age 4 - 6
  - 0 – 3 years in sport
  - “Developing physical literacy” Participants take basic movement skills and adapt them to sport, while learning basic sport concepts of rules and competition.
  - Learn basic sport skills through participation in multiple sports including cycling.

- **Learn to Train**
  - Age 6 - 9
  - 1 – 5 years in sport
  - “Developing skills” Participants build on a base of physical literacy formed in the Active Start and Fundamentals stages.
  - Introduction to a sport training program.
  - Major emphasis on acquiring and developing BMX skills.
  - Participation in multiple sports including cycling.

- **Train to Train**
  - Age 10 - 12
  - 3 – 6 years in sport
  - “Building the engine”
  - Enjoy and appreciate the sport of BMX cycling
  - Participate in a progressive BMX cycling training program. Build fitness by practicing skills in race and game situations.
  - Major emphasis on developing and refining cycling skills.
  - Participation in multiple sports.

- **Active for Life**
  - any age after growth spurt
  - “Maintain activity, give back”
  - Enjoy and appreciate the sport of cycling
  - Emphasis on maintaining fitness through year-round activity.
  - Participation in multiple sports including cycling.
  - Look for leadership opportunities e.g. coaching, officiating

### Participant Profile
- **Active Start**
  - From age 0 to 6 years old, a child is a “learning machine” full of curiosity and always on the move. Brain connections are being made and the body is growing rapidly.
  - The child has a short attention span and needs lots of variety and frequent breaks.
  - Social play with other children develops gradually, but the child loves to imitate and play with parents.
  - Limited ability to grasp concepts like sport rules but lots of imagination to create their own games.

- **Fundamentals**
  - From age 0 to 6 years old, a child is a “learning machine” full of curiosity and always on the move. Brain connections are being made and the body is growing rapidly.
  - The child has a short attention span and needs lots of variety and frequent breaks.
  - The child loves to imitate parents and “bid kids”
  - Limited ability to grasp concepts like sport rules but lots of imagination to create their own games.

- **Learn to Train**
  - Moving into formalized sport and competition.
  - Windows of trainability are important: unloaded speed (e.g. leg speed) and skills are trainable in this stage.
  - The child loves to imitate parents and “bid kids”
  - Limited ability to grasp concepts like sport rules but lots of imagination to create their own games.

- **Train to Train**
  - Participant typically most interested in being with friends and experiencing the fun of competition.
  - Participant lacks long-term goal focus and may not be interested in “serious training”. Focus on fun.

- **Active for Life**
  - Participant may be any age after adolescence (basic physical literacy is developed).
  - Sport participation is important to physical and emotional well-being and is a part of social life.
  - Confident about sport participation.
  - Enjoys cycling.
  - Participant may be any age after adolescence (basic physical literacy is developed).
  - Sport participation is important to physical and emotional well-being and is a part of social life.

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*2010 CANADIAN CYCLING ASSOCIATION  Long-Term Athlete Development: BMX*
<table>
<thead>
<tr>
<th>Age Group</th>
<th>Basic Cycling Objectives</th>
<th>BMX-specific Objectives &amp; Support</th>
<th>Access to equipment and facilities</th>
<th>Access to coach if desired</th>
<th>Access to appropriate sport programs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age 0 - 5</td>
<td>• Learn how to ride a bike</td>
<td>• Explain that “the big track”, jumps, racing, etc are for riders who have learned sound basic cycling skills.</td>
<td>• Maintain regular physical activity</td>
<td>May compete as desired</td>
<td></td>
</tr>
<tr>
<td>0 - 1 years in sport</td>
<td>• Learn the most basic cycling skills: balance, steering, braking.</td>
<td>• Provide a “mini-track” with suitable terrain for new riders-the equivalent of the “bunny hill” in downhill skiing.</td>
<td>• May compete as desired</td>
<td>Find ways to give to sport as a coach, official or leader</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Build general activity level and movement skills through cycling and other sports</td>
<td>• Use flat pedals only (no clips).</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Do not use placings, times, or standings if fun competitions are permitted. Instead, praise riders for good skill execution and trying hard.</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Age 4 - 6</td>
<td>• Learn how to ride a bike</td>
<td>• Provide a “mini-track” with suitable terrain for new riders-the equivalent of the “bunny hill” in downhill skiing.</td>
<td>• Continue to develop higher pedal rates e.g. 140+ rpm.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>0 – 3 years in sport</td>
<td>• Learn basic cycling skills: straight-line riding, using controls (eg hand brake), pedal standing up.</td>
<td>• Begin to use “the big track” (regular track) but do not introduce advanced cycling skills until the basics are mastered.</td>
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<td></td>
</tr>
<tr>
<td></td>
<td>• Build general activity level and movement skills through cycling and other sports</td>
<td>• Use flat pedals only (no clips) to help riders master jump skills. Depending on rules, clips may be introduced near the end of this stage for races but riders should continue using flat pedals part of the time for skill practice.</td>
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</tr>
<tr>
<td></td>
<td></td>
<td>• Develop higher pedal rates e.g. 100-120 revolutions per minute (rpm)</td>
<td>All the key race start and jump skills are consolidated in this stage. More advanced tactical skills are added. The main focus is skill and tactical development.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Minimize use of placings, times, or standings in competitions.</td>
<td>• Continue to develop higher pedal rates e.g. 140+ rpm.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Use a system of identifying and rewarding good skill execution.</td>
<td>• Continue to emphasize “controllable” race results such as times, good positioning, good use of skills and tactics.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Age 6 - 9</td>
<td>• Learn more advanced cycling skills.</td>
<td>• Use the regular BMX track but continue to refine basic skills using “off-track” sessions.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 – 5 years in sport</td>
<td>• Adapt to sport training.</td>
<td>• Use flat pedals only (no clips) to help riders master jump skills. Depending on rules, clips may be introduced near the end of this stage for races but riders should continue using flat pedals part of the time for skill practice.</td>
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</tr>
<tr>
<td></td>
<td>• Develop good position on bicycle and pedaling technique and speed.</td>
<td>• All the key race start and jump skills are consolidated in this stage. More advanced tactical skills are added. The main focus is skill and tactical development.</td>
<td></td>
<td></td>
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</tr>
<tr>
<td></td>
<td>• Build general activity level and fitness through cycling and other sports.</td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Age 10 - 12</td>
<td>• Consolidate advanced cycling skills.</td>
<td>• Use the regular BMX track but continue to refine basic skills using “off-track” sessions.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3 – 6 years in sport</td>
<td>• Work with a good coach to adapt to BMX cycling specific training routine</td>
<td>• Use flat pedals only (no clips) to help riders master jump skills. Depending on rules, clips may be introduced near the end of this stage for races but riders should continue using flat pedals part of the time for skill practice.</td>
<td></td>
<td></td>
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</tr>
<tr>
<td></td>
<td>• Enter regular competition</td>
<td>• All the key race start and jump skills are consolidated in this stage. More advanced tactical skills are added. The main focus is skill and tactical development.</td>
<td></td>
<td></td>
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</tr>
<tr>
<td></td>
<td>• Build cycling fitness through cycling and other sports.</td>
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</tr>
<tr>
<td></td>
<td></td>
<td>• De-emphasize competition results based on place or standings in competitions. Emphasize more “controllable” aspects such as times, good positioning, good use of skills.</td>
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</tr>
<tr>
<td></td>
<td></td>
<td>• Continue to develop higher pedal rates e.g. 120-140 rpm.</td>
<td></td>
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</tr>
</tbody>
</table>

**2010 CANADIAN CYCLING ASSOCIATION Long-Term Athlete Development: BMX**
### Physical Development

**ACTIVE START**
- Age 0 - 5
- 0 - 1 years in sport
- Daily activity: minimum 30 minutes/day for toddlers and 60 minutes/day for preschoolers.
- FUN activities on land, in water and air, and sliding on snow and ice.
- Encourage running, with stops, starts and changes in direction.
- Catching and throwing games using a wide range of soft objects, and balls of different sizes. Start with two hands then progress to using left and right hands to catch and throw.
- Balance, jump, slither like a snake, and roll like a rolling pin. Use hands, feet and other body parts to balance, push and jump. Ride a tricycle or bike.

**FUNDAMENTALS**
- Age 4 - 6
- 0 – 3 years in sport
- Physical literacy: further development of basic movement skills including locomotor, object control and balance and agility skills.
- Speed, power and endurance through FUN and games
- Strength: Introduction to core strength and stability through fun games
- Warm up/cool down: Introduce the concept

**LEARN TO TRAIN**
- Age 6 - 9
- 1 – 5 years in sport
- Be aware of and monitor maturation which may occur at different rates.
- Do not emphasize speed, power or endurance; develop only through FUN and games
- Introduction to concept of warm up/cool down

**TRAIN TO TRAIN**
- Age 10 - 12
- 3 – 6 years in sport
- Be aware of and monitor maturation which may occur at different rates.
- Use skill-building activities such as high repetitions of starts or practice races to develop speed, power and endurance.
- Strength: Build core strength and stability- using own body weight exercises.
- Refine warm up/cool down

**ACTIVE FOR LIFE**
- any age after growth spurt
- Speed, power and endurance through FUN and games
- Strength: Build core strength and stability- use own body weight or weights as desired
- Aerobic power: Mix of development through fun and games, and specific development.
- Participation in multiple sports and activities

### Technical Development

**ACTIVE START**
- Age 0 - 5
- 0 - 1 years in sport
- Explore risks and limits in a secure environment.
- Learn to ride a bike.
- Develop basic cycling skills: turn, climb, descend, accelerate, brake.
- Explore risks and limits in a secure environment
- Develop good cycling position and pedaling technique
- Develop basic cycling skills: turn, climb, descend, accelerate, brake, small jumps.
- Focus on motivating and FUN activities

**FUNDAMENTALS**
- Age 4 - 6
- 0 – 3 years in sport
- Explore risks and limits in a secure environment
- Develop good cycling position and pedaling technique
- Develop basic cycling skills: turn, climb, descend, accelerate, brake.
- Focus on motivating and FUN activities

**LEARN TO TRAIN**
- Age 6 - 9
- 1 – 5 years in sport
- Continue to develop new skills in progressively challenging situations (e.g weight transfer, pumping, manuals, jumping, braking from speed, standing, balancing, wheel lifts, etc)
- Gate starts, bunny-hop a 2x4
- Continue to explore risks and limits in safe environment.

**TRAIN TO TRAIN**
- Age 10 - 12
- 3 – 6 years in sport
- Continue to develop new skills in progressively challenging situations (e.g weight transfer, pumping, manuals, jumping, braking from speed, standing, balancing, wheel lifts, etc)
- Gate starts- refine motion and timing
- Bunny-hop 1’
- Perfect manualling; introduce double-manualling
- Continue to explore risks and limits in safe environment.

**ACTIVE FOR LIFE**
- any age after growth spurt
- Develop and maintain good cycling position and pedaling technique, cycling skills
- Focus on motivating and FUN activities
<table>
<thead>
<tr>
<th>Age</th>
<th>Stage</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 - 5</td>
<td>ACTIVE START</td>
<td>0 - 1 years in sport</td>
</tr>
<tr>
<td>4 - 6</td>
<td>FUNDAMENTALS</td>
<td>0 – 3 years in sport</td>
</tr>
<tr>
<td>6 - 9</td>
<td>LEARN TO TRAIN</td>
<td>1 – 5 years in sport</td>
</tr>
<tr>
<td>10 - 12</td>
<td>TRAIN TO TRAIN</td>
<td>3 – 6 years in sport</td>
</tr>
<tr>
<td>Any age after growth spurt</td>
<td>ACTIVE FOR LIFE</td>
<td></td>
</tr>
</tbody>
</table>

**Tactical Development**
- Watch races. Understand basic concept of racing: idea of “first across the line”
- Learn basic concepts and rules of BMX: race, moto.
- Develop basic tactics, ethics.
- Watch races for learning
- More advanced concepts and rules of competition
- Develop race tactics: maintain speed on whole run, track positioning, corner positioning, best line, hi-lo passing.
- Refine race tactics: maintain speed on whole track, track positioning, corner positioning, best line, hi-lo passing.
- Tactics appropriate to level of racing (if desired)

**Motor & Mental Skill Development**
- Motor learning integrated into practices through games
- Focus on motivating and FUN activities
- Motor learning integrated into practices through games.
- Focus on motivating and FUN activities
- Motor learning integrated into practices through games.
- Develop appropriate attitude to competition: doing one’s best, respect for other racers, coaches and officials.
- Motor learning integrated into practices through games.

**Training Program**
- No organized training in this stage.
- Limited introduction to “training” if desired. Program is based on fun, games, skill development. By end of stage, 2-3 x per week, 30-45 mins/session.
- Seasonal training program. Participate in multiple other sports and cycling disciplines to build athletic skills. By end of stage, 3-5 x per week in BMX season, 60 min per session.
- Seasonal or annual training program with single periodization. By end of stage, 3-5 x per week in season, 90 min per session.
- Daily physical activity
- Training appropriate to level of competition desired, if any
- Participation in multiple sport activities

**Competition Framework**
- No organized competition in this stage.
- Limited introduction to competition if desired and appropriate to athlete. Late in stage, enter club, regional, provincial races leading to Provincial Championships.
- Racing on flat pedals is recommended. Training and competition with others is useful for development in this stage. This may include club programs, training groups, camps, etc. Introduction to regular competition if desired and appropriate to athlete: Club, regional, provincial races leading to Provincial Championships and Games.
- Provincial-level racing; introduce National-level near end of stage including National Championships, Provincial Games, Provincial Training Camps for Team selection.
- Competition if desired and appropriate to athlete
### Long-Term Athlete Development: BMX

<table>
<thead>
<tr>
<th>Age Group</th>
<th>Stage</th>
<th>Description</th>
<th>Parents help by...</th>
<th>Coaching</th>
<th>Testing &amp; Talent ID</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 - 5 yrs</td>
<td>ACTIVE START</td>
<td>Age 0 - 5</td>
<td>0 - 1 years in sport</td>
<td>Allow lots of room for exploration and risk-taking in a safe environment.</td>
<td>Parents, family, and teachers are the main “coaches” at this stage.</td>
</tr>
<tr>
<td>4 - 6 yrs</td>
<td>FUNDAMENTALS</td>
<td>Age 4 - 6</td>
<td>0 – 3 years in sport</td>
<td>Promote physical activity and healthy eating as a family activity. Role modeling is very important.</td>
<td>BMX coach should be Let’s Ride! Community Cycling Initiation – trained (NCCP)</td>
</tr>
<tr>
<td>6 - 9 yrs</td>
<td>LEARN TO TRAIN</td>
<td>Age 6 - 9</td>
<td>1 – 5 years in sport</td>
<td>Provide short-duration, rapidly changing activities with lots of breaks. Let the child’s attention span and interest dictate the activity.</td>
<td>Let’s Ride! Community Cycling Initiation – trained, or Coach working toward certification in Ready to Race! Introduction to Competition</td>
</tr>
<tr>
<td>10 - 12 yrs</td>
<td>TRAIN TO TRAIN</td>
<td>Age 10 - 12</td>
<td>3 – 6 years in sport</td>
<td>These are the “sampling” years. Support the child to participate in many kinds of activity including many kinds of sport.</td>
<td>Coach certified in Ready to Race! Introduction to Competition</td>
</tr>
<tr>
<td>any age</td>
<td>ACTIVE FOR LIFE</td>
<td>any age after growth spurt</td>
<td></td>
<td></td>
<td>Community Cycling Ongoing – trained</td>
</tr>
</tbody>
</table>

#### Parents help by...
- Allow lots of room for exploration and risk-taking in a safe environment.
- Promote physical activity and healthy eating as a family activity. Role modeling is very important.
- Provide short-duration, rapidly changing activities with lots of breaks. Let the child’s attention span and interest dictate the activity.
- These are the “sampling” years. Support the child to participate in many kinds of activity including many kinds of sport.

#### Coaching
- Parents, family, and teachers are the main “coaches” at this stage.
- BMX coach should be Let’s Ride! Community Cycling Initiation – trained (NCCP) or Coach working toward certification in Ready to Race! Introduction to Competition

#### Testing & Talent ID
- None in this stage.
6 – The Role of Competition

“Competition is a good servant, but a poor master.”

What do we mean when we say, “Competition is a good servant, but a poor master”?

Since athletes and coaches want to win, competition formats and schedules often determine the shape of athlete training programs. Winning is an obvious indicators of success, so it becomes easy to neglect harder-to-measure factors such as skill development and satisfaction. The highly competitive athlete- or coach, or parent- becomes focused on getting to and succeeding at a series of competitions, above all else. Unless sport leaders pay careful attention to matching the format of competition to the developmental needs of athletes, the quest for success may distort development, for example, by leading a BMXer to ride with clip pedals to improve his/her start, when he/she has not yet developed skill with flat pedals. Competition has become the master.

If competition is to be a good servant rather than a poor master, the nature of BMX competitions should reflect the goals for each developmental stage, including reinforcement of social, psychological and physical development objectives. In the early “BMX for Fun and Skill” stages, enjoyment of the sport and the development of good skills are most important goals. Later, in the “BMX for Performance” stages the format of competitions should help the rider develop fitness, focus and competition abilities. Every competition should have a specific purpose tied to the athlete’s stage, whether it is to develop tactical skills, to practice for a major competition, or to perform at a Championship event. Here are some tips:

In the “BMX for Fun and Skills” stages:

- Introduce competition only when the rider has developed sound basic BMX skills.
- Choose competitions which use track profiles suitable for the rider’s skill level.
- Emphasize the rider demonstrating skills in competition, not winning. For example, “great position out of the start!” or “great pass on that banking!”
- Avoid chasing rankings or plates.
- Avoid comparing results to other riders. Compare to previous performances- look for improvement and consistency.
- Avoid excessive, expensive travel to national competitions until the rider is ready (Train to Train stage).

In the “BMX for Performance” stages:

- Select competitions based on specific criteria: development of skills and tactics, trying a higher level of competition for learning, or trying a harder track (e.g. Supercross) for the first time.
- At first (Learn to Compete) select only a few races per season where performance and ranking matter. Increase the emphasis on performance progressively.
- Ensure there is enough time for recovery and training between competitions in the plan.

How to know when the rider is ready to move to the next stage of development and tougher competitions? Just because the rider is winning races, that does not put him or her in the “Train to Win” stage. Some stages have growth and development markers- for example, puberty marks the beginning of the time when the athlete can build strength and power, so the “BMX for Performance” stages (Learn to Compete to Train to Win) cannot begin until then. Likewise the rider is not ready for the Supercross track until he/she has the strength to manage the start and the skill and power to clear the bigger jumps, which typically cannot occur until after puberty. An experienced, trained coach usually has the best perspective on when to take the next step.
# 7 - The Stages of BMX for Performance

The following table shows key BMX developmental factors for the LTAD stages from Learn to Compete to Train to Win, and Active for Life. For more information on Cycling’s LTAD refer to the CCA LTAD Volume 1. Stages are based on both chronological age and “sport years” which is the time the athlete spent developing in sport.

<table>
<thead>
<tr>
<th></th>
<th>LEARN TO COMPETE</th>
<th>TRAIN TO COMPETE</th>
<th>LEARN TO WIN</th>
<th>TRAIN TO WIN</th>
<th>ACTIVE FOR LIFE</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Age</strong></td>
<td>Age 12 - 15</td>
<td>Age 15 - 17</td>
<td>Age 17 - 21</td>
<td>Age 18+</td>
<td>any age after growth spurt</td>
</tr>
<tr>
<td></td>
<td>4 - 7 years in sport</td>
<td>6 - 9 years in sport</td>
<td>7+ years in sport</td>
<td>8+ years in sport</td>
<td></td>
</tr>
<tr>
<td><strong>Defining the Stage</strong></td>
<td>“Optimizing the engine”</td>
<td>Major focus on implementing skills learned earlier in competition; learning through competition.</td>
<td>“Maximizing the engine” Major focus is developing speed and power.</td>
<td>“Performance on demand” – ability to perform at top level despite setbacks</td>
<td>“Maintain activity, give back”</td>
</tr>
<tr>
<td></td>
<td>• Major focus on implementing skills learned earlier in competition; learning through competition.</td>
<td>• Learning to perform “on demand” in high pressure competition situations.</td>
<td>• Perfecting all physical abilities and recovery/regeneration.</td>
<td>• Enjoy and appreciate the sport of cycling</td>
<td>• “Maintain activity, give back”</td>
</tr>
<tr>
<td></td>
<td>• Continuation to refine and perfect technical skills.</td>
<td>• Refining and perfecting skills and tactical skills.</td>
<td>• Able to perform “on demand” in high pressure competition situations.</td>
<td>• Emphasis on maintaining fitness through year-round activity.</td>
<td>• Enjoy and appreciate the sport of cycling</td>
</tr>
<tr>
<td></td>
<td>• Developing mental skills for competition.</td>
<td>• Refining mental skills for competition; learning to maintain performance while balancing life skills in high performance competition.</td>
<td>• Refining and perfecting skills and tactical skills.</td>
<td>• Participation in multiple sports including cycling.</td>
<td>• Emphasis on maintaining fitness through year-round activity.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Refining mental skills for competition; able to maintain performance while balancing life skills in high performance competition.</td>
<td>• Look for leadership opportunities e.g. coaching, officiating</td>
<td>• Reinvestment and appreciation of the sport of cycling.</td>
</tr>
</tbody>
</table>

## Defining the Stage

- **“Optimizing the engine”**
  - Major focus on implementing skills learned earlier in competition; learning through competition.
  - Continuing to refine and perfect technical skills.
  - Developing mental skills for competition.

- **“Maximizing the engine”**
  - Major focus is developing speed and power.
  - Learning to perform “on demand” in high pressure competition situations.
  - Refining and perfecting skills and tactical skills.
  - Refining mental skills for competition; learning to maintain performance while balancing life skills in high performance competition.

- **“Performance on demand”**
  - Ability to perform at top level despite setbacks.
  - Perfecting all physical abilities and recovery/regeneration.
  - Able to perform “on demand” in high pressure competition situations.
  - Refining and perfecting skills and tactical skills.
  - Refining mental skills for competition; able to maintain performance while balancing life skills in high performance competition.

- **“Maintain activity, give back”**
  - Enjoy and appreciate the sport of cycling.
  - Emphasis on maintaining fitness through year-round activity.
  - Participation in multiple sports including cycling.
  - Look for leadership opportunities e.g. coaching, officiating.
<table>
<thead>
<tr>
<th>Age Group</th>
<th>Participant Profile</th>
</tr>
</thead>
<tbody>
<tr>
<td>LEARN TO COMPETE Age 12 - 15</td>
<td>4 - 7 years in sport</td>
</tr>
<tr>
<td>• Is interested in pursuing excellence.</td>
<td></td>
</tr>
<tr>
<td>• Is prepared to train hard and focus on competitive success.</td>
<td></td>
</tr>
<tr>
<td>• Self-image becomes defined, includes sport as a major element in identity.</td>
<td></td>
</tr>
<tr>
<td>• Growth spurt and onset of puberty in this stage—implications for growth, level of fatigue, coordination,</td>
<td></td>
</tr>
<tr>
<td>• Needs support network including family, coach to maintain focus on sport career.</td>
<td></td>
</tr>
<tr>
<td>TRAIN TO COMPETE Age 15 - 17</td>
<td>6 - 9 years in sport</td>
</tr>
<tr>
<td>• Is serious about sport and pursuing excellence.</td>
<td></td>
</tr>
<tr>
<td>• Is prepared to train hard and focus on competitive success.</td>
<td></td>
</tr>
<tr>
<td>• Is likely experiencing life challenges in balancing school, family, personal relationships and work, which may detract from commitment to sport.</td>
<td></td>
</tr>
<tr>
<td>• Self-image includes sport as a major element in identity.</td>
<td></td>
</tr>
<tr>
<td>• Looking ahead to next steps in sport success e.g. college, National Team but may be frustrated by injury or other priorities.</td>
<td></td>
</tr>
<tr>
<td>• Needs a support network including family, coach, sport science and health care to sustain sport career.</td>
<td></td>
</tr>
<tr>
<td>LEARN TO WIN Age 17 - 21</td>
<td>7+ years in sport</td>
</tr>
<tr>
<td>• Fully committed to BMX and pursuing excellence.</td>
<td></td>
</tr>
<tr>
<td>• Training hard and focus on competitive success is a “full time job”.</td>
<td></td>
</tr>
<tr>
<td>• Learning to cope with life challenges in balancing school, family, personal relationships and work, which may detract from commitment to sport.</td>
<td></td>
</tr>
<tr>
<td>• Self-image includes sport as a major element in identity.</td>
<td></td>
</tr>
<tr>
<td>• Completely focused on next steps in sport success e.g. National Team, Worlds, Olympics.</td>
<td></td>
</tr>
<tr>
<td>• Building a support network including family, coach, sport science and health care to sustain sport career.</td>
<td></td>
</tr>
<tr>
<td>TRAIN TO WIN Age 18+</td>
<td>8+ years in sport</td>
</tr>
<tr>
<td>• At the top – a role model.</td>
<td></td>
</tr>
<tr>
<td>• Fully committed to BMX and excellence. Working to stay on top of the BMX world.</td>
<td></td>
</tr>
<tr>
<td>• Training hard and focus on competitive success is a “full time job”.</td>
<td></td>
</tr>
<tr>
<td>• Copes with life challenges in balancing school, family, personal relationships and work.</td>
<td></td>
</tr>
<tr>
<td>• Self-image includes sport as a major element in identity.</td>
<td></td>
</tr>
<tr>
<td>• Completely focused on next steps in sport success e.g. National Team, Worlds, Olympics.</td>
<td></td>
</tr>
<tr>
<td>• Has built a support network including family, coach, sport science and health care to sustain sport career.</td>
<td></td>
</tr>
<tr>
<td>ACTIVE FOR LIFE any age after growth spurts</td>
<td></td>
</tr>
<tr>
<td>• Confident about sport participation.</td>
<td></td>
</tr>
<tr>
<td>• Enjoys cycling.</td>
<td></td>
</tr>
<tr>
<td>• Participant may be any age after adolescence (basic physical literacy is developed).</td>
<td></td>
</tr>
<tr>
<td>• Sport participation is important to physical and emotional well-being and is a part of social life.</td>
<td></td>
</tr>
</tbody>
</table>

2010 CANADIAN CYCLING ASSOCIATION  Long-Term Athlete Development: BMX
<table>
<thead>
<tr>
<th>Age 12 - 15</th>
<th>Age 15 - 17</th>
<th>Age 17 - 21</th>
<th>Age 18+</th>
<th>any age after growth spurt</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>LEARN TO COMPETE</strong>&lt;br&gt;4 - 7 years in sport</td>
<td><strong>TRAIN TO COMPETE</strong>&lt;br&gt;6 - 9 years in sport</td>
<td><strong>LEARN TO WIN</strong>&lt;br&gt;7+ years in sport</td>
<td><strong>TRAIN TO WIN</strong>&lt;br&gt;8+ years in sport</td>
<td><strong>ACTIVE FOR LIFE</strong>&lt;br&gt;any age after growth spurt</td>
</tr>
<tr>
<td>BMX-specific Objectives &amp; Support</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• May begin using clips in competition but continue using flat pedals part of the time for skill practice.</td>
<td>• Continue using flat pedals part of the time for skill practice.</td>
<td>• Continue using flat pedals part of the time for skill practice.</td>
<td>• Continue using flat pedals part of the time for skill practice.</td>
<td>• Access to equipment and facilities</td>
</tr>
<tr>
<td>• Key race start and jump skills are refined in this stage.</td>
<td>• More advanced tactical skills as well as mental/decision making skills are refined through competition.</td>
<td>• Advanced tactical skills as well as mental/decision making skills are refined through competition.</td>
<td>• Advanced tactical skills as well as mental/decision making skills are refined through competition.</td>
<td>• Access to coach if desired</td>
</tr>
<tr>
<td>• More advanced tactical skills as well as mental/decision making skills are added. The main focus is tactical development.</td>
<td>• Increasing emphasis on race results (placings) and working toward consistent results.</td>
<td>• Exposure to Supercross track</td>
<td>• Master Supercross track</td>
<td>• Access to appropriate sport programs</td>
</tr>
<tr>
<td>• Key race start and jump skills are refined in this stage.</td>
<td>• More advanced tactical skills as well as mental/decision making skills are refined through competition.</td>
<td>• Increasing emphasis on race results (placings) and working toward consistent results.</td>
<td>• Use elements such as section times, race positioning, video to help analyze race results.</td>
<td></td>
</tr>
<tr>
<td>• Use elements such as section times, race positioning, good use of skills and tactics to help analyze race results.</td>
<td>• Continue to use elements such as times, race positioning, good use of skills and tactics to help analyze race results.</td>
<td>• Maintain high pedal rates e.g. 140+ rpm.</td>
<td>• Maintain high pedal rates e.g. 140+ rpm.</td>
<td></td>
</tr>
<tr>
<td>• Continue to develop higher pedal rates e.g. 140+ rpm.</td>
<td>• Continue to develop higher pedal rates e.g. 140+ rpm.</td>
<td>• Continue to develop higher pedal rates e.g. 140+ rpm.</td>
<td>• Continue to develop higher pedal rates e.g. 140+ rpm.</td>
<td></td>
</tr>
</tbody>
</table>

**Physical Development**

- Advanced sport specific drills
- Speed, power: specific sprint training
- Strength: Athlete specific core strength and stability, ankle and knee stability, free weights. Sport specific strength in specific preparation phase
- Warm up/cool down- integral, specific to training and competition
- Anaerobic power: specific prep and competition phases, targeted development
- Aerobic power: Specific training and complementary sports.
- Advanced sport specific drills
- Speed, power: specific sprint training
- Strength: Athlete specific core strength and stability, ankle and knee stability, free weights. Sport specific strength in specific preparation phase
- Warm up/cool down- integral, specific to training and competition
- Anaerobic power: specific prep and competition phases, targeted development
- Aerobic power: Specific training and complementary sports.
- Major power development window.
- Speed, power: specific sprint training
- Strength: Athlete specific core strength and stability, ankle and knee stability, free weights. Sport specific strength in specific preparation phase
- Warm up/cool down- integral, specific to training and competition
- Anaerobic power: specific prep and competition phases, targeted development
- Aerobic power: Specific training and complementary sports.
- Primary focus is on adequate recovery/regeneration from intensive training and competition.
- Speed, power: specific sprint training
- Strength: Athlete specific core strength and stability, ankle and knee stability, free weights. Sport specific strength in specific preparation phase
- Warm up/cool down- integral, specific to training and competition
- Anaerobic power: specific prep and competition phases, targeted development
- Aerobic power: Specific training and complementary sports.
- Speed, power and endurance through FUN and games
- Strength: Build core strength and stability- use own body weight or weights as desired
- Aerobic power: Mix of development through fun and games, and specific development.
- Participation in multiple sports and activities
<table>
<thead>
<tr>
<th>Age Range</th>
<th>LEARN TO COMPETE</th>
<th>TRAIN TO COMPETE</th>
<th>LEARN TO WIN</th>
<th>TRAIN TO WIN</th>
<th>ACTIVE FOR LIFE</th>
</tr>
</thead>
<tbody>
<tr>
<td>12 - 15, 4 - 7 yrs</td>
<td>Continue using flat pedals part of the time for skill practice.</td>
<td>Continue using flat pedals part of the time for skill practice.</td>
<td>Continue using flat pedals part of the time for skill practice.</td>
<td>Continue using flat pedals part of the time for skill practice.</td>
<td>Develop and maintain good cycling position and pedaling technique, cycling skills</td>
</tr>
<tr>
<td></td>
<td>Perfecting all BMX skills.</td>
<td>Perfecting all BMX skills.</td>
<td>Perfecting all BMX skills.</td>
<td>Perfecting all BMX skills.</td>
<td>Focus on motivating and FUN activities</td>
</tr>
<tr>
<td></td>
<td>Jump analysis and progression from 10’ to 25’</td>
<td>Jump analysis and progression from 10’ to 25’</td>
<td>Jump analysis and progression from 10’ to 25’</td>
<td>Jump analysis and progression from 10’ to 25’</td>
<td>Tactics appropriate to level of racing (if desired)</td>
</tr>
<tr>
<td></td>
<td>Jumping various obstacles and jump profiles.</td>
<td>Initial experience on Supercross track</td>
<td>Mastering Supercross track</td>
<td>Mastering Supercross track</td>
<td>Mental skill development appropriate to level of racing (if desired)</td>
</tr>
<tr>
<td></td>
<td>Perfecting moto tactics.</td>
<td>Perfecting moto tactics.</td>
<td>Perfecting moto tactics.</td>
<td>Perfecting moto tactics.</td>
<td>Training appropriate to level of competition desired, if any</td>
</tr>
<tr>
<td></td>
<td>Focus on decision-making in races and understanding consequences</td>
<td>Race focus, decision-making</td>
<td>Race focus, decision-making</td>
<td>Race focus, decision-making</td>
<td>Participation in multiple sport activities</td>
</tr>
<tr>
<td></td>
<td>Development of competition routines pre-race, post-race</td>
<td>Refining competition routines pre-race, post-race</td>
<td>Perfect competition routines pre-race, post-race</td>
<td>Perfect competition routines pre-race, post-race</td>
<td></td>
</tr>
<tr>
<td></td>
<td>300-600 training hours per year.</td>
<td>400-750 training hours per year.</td>
<td>500-1000 training hours per year.</td>
<td>600-1000 training hours per year.</td>
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<tr>
<td></td>
<td>4 to 6 sessions per week; 7 to 10 hrs/week.</td>
<td>5 to 8 sessions per week; 9 to 16 hrs/week.</td>
<td>6 to 10 sessions per week; 10 to 20 hrs/week.</td>
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<tr>
<td></td>
<td>Sessions up to 2:00-3:00 hrs</td>
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<td>Sessions up to 2:00-3:00 hrs</td>
<td></td>
</tr>
<tr>
<td></td>
<td>May participate in up to 1-2 other sports but is now specializing in BMX</td>
<td>May participate in up to 1 other sport but is now specializing in BMX</td>
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<td></td>
</tr>
<tr>
<td></td>
<td>Single periodization-1 main competition with multiple sub peaks</td>
<td>Single periodization-1 main competition with multiple sub peaks</td>
<td>Multiple periodization-multiple peaks</td>
<td>Multiple periodization-multiple peaks</td>
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<td></td>
</tr>
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</tr>
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<td>7+ years in sport</td>
<td>8+ years in sport</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Competition Framework**
- Train and compete in provincial program and provincial/national selection camps.
- Major focus is National Championships.
- First exposure to international competition.
- National and initial International races
- National Championships
- National Development Camps
- Provincial Team
- Canada Games
- International races and initial World Cup races
- National Championships
- National races
- National Team Camps
- International races: World Cup, World Championships, Major Games
- National Championships
- National races
- National Team Camps
- Competition if desired and appropriate to athlete
- Supporting all kinds of sport activity and interests, including learning to coach or officiate.
- Supporting non-competitive sport interests.

**Parents help by…**
- These are the “support” years. The athlete is beginning to specialize by reducing the number of other sports- 1 or 2 at most.
- Parents help by assisting the athlete to get to practice and competitions, ensuring equipment is appropriate quality, and supporting the coaches’ decisions.
- Don’t add pressure by emphasizing winning and performance; instead, remove pressure by letting him/her make their own decisions and supporting them by ensuring they have looked at all options and opportunities.
- These are the “support” years. The athlete is beginning to specialize by reducing the number of other sports- 1 or 2 at most.
- Parents help by assisting the athlete to get to practice and competitions, ensuring equipment is appropriate quality, and supporting the coaches’ decisions.
- Don’t add pressure by emphasizing winning and performance; instead, remove pressure by letting him/her make their own decisions and supporting them by ensuring they have looked at all options and opportunities.
- These are the “investment” years. The athlete is mature, capable of making their own decisions and has specialized in BMX. Parents help by providing financial assistance and being there to offer extra support as needed.
- These are the “investment” years. The athlete is mature, capable of making their own decisions and has specialized in BMX. Parents help by providing financial assistance and being there to offer extra support as needed.

**Coaching**
- BMX coach certified in NCCP Competition Development
- Personal coach and may be working with Provincial Team Coaches
- BMX coach certified in NCCP Competition Development
- Personal coach and may be working with Provincial and National Team Coaches
- BMX coach certified in NCCP High Performance
- Personal coach and may be working with Provincial and National Team Coaches
- BMX coach certified in NCCP High Performance
- Personal coach and may be working with National Team Coaches
- Coach if appropriate and desired Community Cycling Ongoing – trained
- None in this stage.

**Performance Testing**
- By end of stage, regular testing by coach (monthly-quarterly)
- Video skill analysis
- Power-Wingate test
- Standard 25m, 50m times
- Functional movement screen
- Regular testing by coach (monthly-quarterly)
- Power-Wingate test
- Video skill analysis
- Standard 25m, 50m times
- Functional movement screen
- Regular testing by coach (monthly-quarterly)
- Power-Wingate test
- Aerobic power
- Video skill analysis
- Standard 25m, 50m times
- Functional movement screen
- Regular testing by coach (monthly-quarterly)
- Power-Wingate test
- Aerobic power
- Video skill analysis
- Standard 25m, 50m times
- Functional movement screen
- None in this stage.
# Building Canadian BMX

Although BMX has been part of Canadian cycling for about 30 years, it is still relatively new compared to other cycling sports. Different provinces and territories have different availability of tracks and coaches, different levels of organization, and (of course) different climates and proximities to BMX racing in the USA. To create more opportunities for our racers we need to work together to build Canadian BMX. The Canadian Cycling Association, its partner provincial/territorial sport organizations (P/TSOs), coaches, organizers and parents all have key roles:

<table>
<thead>
<tr>
<th>OBJECTIVE</th>
<th>RESPONSIBILITY</th>
</tr>
</thead>
<tbody>
<tr>
<td>Develop a national framework for BMX development based on Canadian Sport for Life/Long Term Athlete Development</td>
<td>CCA</td>
</tr>
<tr>
<td>Develop and deliver coach and officials training programs</td>
<td>CCA, P/TSOs</td>
</tr>
<tr>
<td>Work to support the building and development of more quality BMX tracks and clubs</td>
<td>P/TSOs, Clubs</td>
</tr>
<tr>
<td>Create stage-appropriate development programs and competition schedules that support rider development.</td>
<td>CCA, P/TSOs, Clubs</td>
</tr>
<tr>
<td>Commit to ongoing personal and professional development, including NCCP certification, to provide the best quality of stage-appropriate development for athletes.</td>
<td>Coaches</td>
</tr>
<tr>
<td>Maintain a healthy perspective on competition and winning, remembering that we are working to build individual growth and development, long-term gains and success, and a love for all kinds of sport and physical activity.</td>
<td>Coaches, Parents</td>
</tr>
<tr>
<td>Ensure young BMXers get the best quality development by understanding Canadian Sport for Life principles and insisting on a NCCP-certified BMX coach.</td>
<td>Parents</td>
</tr>
<tr>
<td>Understand the importance of building skills in the “BMX for Fun and Skill” stages, and prioritize skill development ahead of winning for young BMXers.</td>
<td>All</td>
</tr>
</tbody>
</table>
9 – From Winning BMX to Winning for Life

Proving the latest information on development, training and competition, like this guide, is part of the Canadian Cycling Association’s commitment to growing the sport of BMX in Canada. Our goal is not simply to help Canadian BMXers onto international podiums, but to ensure that every athlete can enjoy participation in cycling and sport for a lifetime.

Our framework for growth is the Canadian Sport for Life movement. A key part of the movement is Long-Term Athlete Development, which is a comprehensive set of principles for effective participant development. LTAD is based on research combined with the practical experience of working with thousands of athletes and coach-instructors.

We believe:

- Life has different stages of development that include transitions from child to adolescent, to adult, and then to senior, resulting in changed capabilities.
- Training, competition and recovery programs should be based on participant capability rather than chronological age.
- For optimal development, sport and physical activity programs must be designed for the capability and gender of the participant.
- Physical literacy is the basis of life-long participation and excellence in sport and engagement in health enhancing physical activity.
- Every child has the potential to be an athlete; therefore, is genetically predisposed to be active if the environment encourages participation.
- Life-long participation and excellence in sport are best achieved by participating in a variety of sports at a young age to develop athleticism, then specializing in a particular sport later.

- There are sensitive periods during which there is accelerated adaptation to training during pre-puberty, puberty and early post-puberty.
- A variety of developmental, physical, mental, cognitive and emotional factors affect the planning of optimal training, competition and recovery programs.
- Providing guidance through the developmental stages of sport and physical activity will result in increased participation and performance across the lifespan.
- Mastery in sport develops over time, through participation in quality sport and physical activity programs.
- LTAD is participant/athlete centered, coach-led and organization-supported and, therefore, takes into account the demands of home, organized sport, community recreation and school.
- Quality sport and physical activity, combined with proper lifestyle, result in better health, disease prevention, enhanced learning, enjoyment and social interaction; leading to improved wellness.
- Sport practices, scientific knowledge and societal expectations are ever changing and, therefore, LTAD needs to continually adapt and improve.

We encourage you to support every athlete using these principles, whether their time in BMX leads them to the podium, to other cycling disciplines, to other sports, or to contributing to sport in other ways.

Let’s go!
Glossary of Terms

**Adolescence** is a difficult period to define in terms of the time of its onset and termination. During this period, most bodily systems become adult both structurally and functionally. Structurally, adolescence begins with an acceleration in the rate of growth in stature, which marks the onset of the adolescent growth spurt. The rate of growth reaches a peak, begins a slower or decelerative phase, and finally terminates with the attainment of adult stature. Functionally, adolescence is usually viewed in terms of sexual maturation, which begins with changes in the neuroendocrine system prior to overt physical changes and terminates with the attainment of reproductive function.

**Aerobic Endurance**—Ability to exercise for long durations using aerobic energy systems.

**Agility**—The ability to move quickly in three dimensions while remaining in control of the movement.

**Anthropometry**: Measurement of body lengths and girths. In early stages height and weight should be measured regularly to help in determining Peak Height Velocity (growth spurt). Later, body fat measurement should be added.

**Balance**—Ability to remain upright while moving. Includes static balance and balancing while moving or gliding.

**Childhood** ordinarily spans the end of infancy — the first birthday — to the start of adolescence and is characterized by relatively steady progress in growth and maturation and rapid progress in neuromuscular or motor development. It is often divided into early childhood, which includes pre-school children aged 1 to 5 years, and late childhood, which includes elementary school-age children, aged 6 through to the onset of adolescence.

**Chronological age** refers to “the number of years and days elapsed since birth.” Growth, development, and maturation operate in a time framework; that is, the child’s chronological age. Children of the same chronological age can differ by several years in their level of biological maturation. The integrated nature of growth and maturation is achieved by the interaction of genes, hormones, nutrients, and the physical and psychosocial environments in which the individual lives. This complex interaction regulates the child’s growth, neuromuscular maturation, sexual maturation, and general physical metamorphosis during the first 2 decades of life.

**Coordination**—Moving several parts of the body serially or simultaneously to achieve movement.

**Critical periods of development** refers to a point in the development of a specific behaviour when experience or training has an optimal effect on development. The same experience, introduced at an earlier or later time, has no effect on or retards later skill acquisition.

**Community Initiation**: A National Coaching Certification Program context describing coaches of entry-level pre-competitive athletes.

**Development** refers to “the interrelationship between growth and maturation in relation to the passage of time. The concept of development also includes the social, emotional, intellectual, and motor realms of the child.”

The terms “growth” and “maturation” are often used together and sometimes synonymously. However, each refers to specific biological activities. Growth refers to “observable, step-by-step, measurable changes in body size such as height, weight, and percentage of body fat.” Maturation refers to “qualitative systemic changes, both structural and functional in nature, in the organism’s progress toward maturity; for example, the change of cartilage to bone in the skeleton.”

**Fine Motor Skills**—Movements controlled by small muscles, e.g. hand or finger movements.

**Functional Movement Screen**—A test of core strength and balance while performing simple movements.

**Goal Setting**—The ability to set targets for future behaviours or outcomes.

**Gross Motor Skills**—Large movements of the limbs and body using multiple joints and muscle groups.

**Introduction to Competition**: A National Coaching Certification Program context describing coaches of early-stage competitive athletes.

**Memory**—Ability to retain and recall instructions, information, and experiences.

**Mental Models**—Ability to understand and manipulate mental models of real-world processes.
Movement Literacy: The competence of an athlete in a wide range of physical activities; a foundation for all sport development.

National Coaching Certification Program (NCCP): Canada’s coach education program which prepares coaches in Community, Introduction to Competition, Competition Development and Competition High Performance contexts.

Periodization: A training program broken down into phases (periods) to promote progressive development.

Peak height velocity (PHV) is the maximum rate of growth in stature during growth spurt. The age of maximum velocity of growth is called the age at PHV.

Physical literacy refers to the mastering of fundamental motor skills and fundamental sport skills.

Puberty refers to the point at which an individual is sexually mature and able to reproduce.

Readiness refers to the child’s level of growth, maturity, and development that enables him/her to perform tasks and meet demands through training and competition. Readiness and critical periods of trainability during growth and development of young athletes are also referred to as the correct time for the programming of certain stimuli to achieve optimum adaptation with regard to motor skills, muscular and/or aerobic power.

Skeletal age refers to the maturity of the skeleton determined by the degree of ossification of the bone structure. It is a measure of age that takes into consideration how far given bones have progressed toward maturity, not in size, but with respect to shape and position to one another.

Skill: The ability to perform complex movements with a high degree of precision and consistency. This includes both movement skills (agility, motion and object control) and sport skills (reading and reacting to sport situations).

Speed 1: Speed increases due to improvements in neuromuscular coordination.

Speed 2: Speed increases due to improvements in energy systems, anaerobic alactic and lactic.

Strength 1: Strength increases due primarily to increases in neuromuscular coordination, not growth.

Strength 2: Strength increases due primarily to increases in lean muscle mass-hypertrophy.

Stamina: Also called “aerobic endurance” this is the ability to continue intense exercise for long periods.

Supercross Track: An expert-level BMX track with a higher start gate and bigger jumps, as used at the Olympics (for example).

Suppleness: Also called “Flexibility” this is the range of physical movement at the joints.

Talent ID: Talent identification tests used to direct athletes into activities based on their potential. Talent ID must NOT be used to compare athletes (e.g. for selection).

Trainability refers to the genetic endowment of athletes as they respond individually to specific stimuli and adapt to it accordingly. Malina and Bouchard (1991) defined trainability as “the responsiveness of developing individuals at different stages of growth and maturation to the training stimulus.”

Wingate Test: A test of anaerobic power and capacity.
Resources and Contacts

In addition to the resources and contacts listed here, useful information can be found at www.canadian-cycling.com

Resources


Additional information on Canadian Sport for Life and Long-Term Athlete Development can be found at www.canadiansportforlife.ca

Provincial Cycling Associations

Cycling British Columbia
#201-210 West Broadway
Vancouver, BC V5Y 3W2
Direct: 604 737-3164
www.cyclingbc.net

Alberta Bicycle Association
Percy Page Centre, 11759 Groat Road,
Edmonton, AB T5M 3K6
780 427-6352 (B)
www.albertabicycle.ab.ca

Saskatchewan Cycling Association
2205 Victoria Avenue,
Regina, Saskatchewan S4P 0S4
306 780-9299 (B)
www.saskcycling.ca

Manitoba Cycling Association
200 Main Street, Suite 309,
Winnipeg, Manitoba R3C 4M2
204 925-5686 (B)
www.cycling.mb.ca

Ontario Cycling Association
307-3 Concord Gate
Toronto, Ontario M3C 3N7
416 426-7243 (B)
www.onotoricity.org

Fédération Québécoise des sport cyclistes
4545 Pierre de Coubertin
Montréal, Québec H1V 3R2
514 252-3071 (B)
www.fqsc.net

Vélo New Brunswick
P.O. Box 3145
Fredericton, New Brunswick E3A 5G9
506 877-7809 (B)
www.velo.nb.ca

Atlantic Cycling Center,
200 Prom. Du Parc,
Dieppe, NB E1A 7Z3
Contact: Luc Arseneau

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200 Prom. Du Parc,
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Contact: Luc Arseneau

Bicycle Nova Scotia
5516 Spring Garden Rd, 4th Floor,
Halifax, Nova Scotia B3J 1G6
902 425-5454 x 316 (B)
www.bicycle.ns.ca

Bicycle Newfoundland and Labrador
P.O. Box 2127, Station C,
St. John’s, Newfoundland A1B 4R3
709 738-8889 (B)
www.bnl.nf.ca

Cycling Association of Yukon
9B Diamond Way,
Whitehorse, Yukon Y1A 6G4
867 667-8212 (B)

Cycling PEI
P.O. Box 302
Charlottetown, PEI C1A 7K7
1800 247-6712
www.sportpei.pe.ca