## - TRIATHLON Beginner's Guide

AN INITIATIVE OF:

SPORT. EDUCATION. FIERTE.
RSER

IN COLLABORATION WITH:


## TABLE OF CONTENTS

INTRODUCTION ..... 3
Guide's objectives ..... 3
How to use this guide ..... 3
Legends ..... 3
What is a triathlon? ..... 5
Basic rules for summer youth events ..... 7
Recommended progression by age ..... 9
Organizing a school triathlon ..... 10
SECTION 1: SWIMMING ..... 11
Equipment ..... 11SafetyRecipe for success12
Recommended activities ..... 1312
Out-of-water exercises ..... 13
Pool activities ..... 14
APPENDIX 1: How to swim the crawl better
SECTION 2: CYCLING ..... 24
Equipment24
Safety ..... 25
Recipe for success ..... 26
Recommended activities ..... 26
APPENDIX 2: A Bike in Good Shape ..... 39
APPENDIX 3: Changing Bike Gears ..... 40
SECTION 3: RUNNING ..... 41
Equipment ..... 41
Safety ..... 41
Recipe for success ..... 41
Recommended activities ..... 41
APPENDIX 4: How to Run Better ..... 50
SECTION 4: TRANSITIONS ..... 51
Equipment ..... 51
Safety ..... 51
Recipe for success ..... 52
Recommended activities ..... 53
Transition activities ..... 53
Sequencing activities ..... 57
APPENDIX 5: Timeline ..... 59
BIBLIOGRAPHY ..... 60

## INTRODUCTION

## GUIDE'S OBJECTIVES

The purpose of this guide is to help coaches lead sessions with beginner participants in the youth category. It can be used for a variety of activities, including after-school activities, youth clubs, information sessions for physical fitness professionals and introductory activities.
This guide is designed for young participants, age 4 to 15 , who are new to triathlons. In addition, the activities in this guide were selected due to their simple implementation and their appeal to novice participants.
The idea behind this guide is therefore three-fold:

- Teach the basics of triathlons and their progression
- Simplify the planning of one or more triathlon sessions
- Maximize the enjoyment, involvement and drive of participants when it comes to learning a new sport


## HOW TO USE THIS GUIDE

Before providing any information and conducting any sessions, a minimum of preparation is necessary. We recommend that you read the INTRODUCTION section to learn about the role that a coach plays and get an overview of the sport.
Then, to fully benefit from each section, we suggest you take the following steps:

1. Learn more about the clientele (age, skill level, number of participants);
2. Determine the purpose of the activity and refer to the right section in the guide:

## Section 1: Swimming

Section 2: Cycling

## Section 3: Running

Section 4: Transitions
3. Select the activities that you plan to conduct based on the length of the session and the recommendations in this guide (for activities such as warm-ups and cool-downs).
4. Tailor multiple variations of activities to the needs of the participants.

## LEGENDS

## TARGETED SKILLS

TECHNICAL (T). Athletes must work on their movement techniques in each discipline - the quality of the activities. Technique requires attention to detail, coordination and agility. Technique is crucial for long-term development, performance improvement, movement efficiency and the reduced risk of injury.

TACTICAL/SAFETY (T/S). Athletes must work on the tactical and/or safety aspects of any discipline. With beginners, the focus is more on safety (putting on a helmet, braking in an emergency and avoiding an obstacle). With advanced athletes, the focus is on tactics (mass start swimming, riding in a pack). Tactics and safety are critical for the athletes themselves and others - and for improving their performance in a group and competitive setting.

PHYSIOLOGICAL (P). The physiological aspects of any discipline primarily involve cardiovascular and muscular endurance, but also strength, power and speed when it comes to performing the exercise. Ultimately, mastering this should improve overall performance.

PSYCHOLOGICAL/SOCIAL ( $\Psi$ ). The psychological and social aspects of any sport are common when athletes train in a team or game setting. The psychological component is more common when it comes to surpassing oneself and others in a training and competitive environment. Both components create a sense of belonging, accomplishment, sensation (an appreciation of the setting or pleasure) and selfdetermination (Triathlon Canada, 2012). Each one also leads to enjoyment, motivation, a passion for physical fitness and the adoption of a long-term healthy lifestyle.

## EVALUATION

Although there are no grades in triathlons, it is important to monitor the progress and training of athletes. It is possible and strongly encouraged to evaluate the skills and measure the progress of athletes with the Triathlon Québec Triathlete Passport. In this passport, skills are classified into 7 levels of difficulty and allow athletes to progress at their own pace.
$\checkmark$ Triathlete Passport (https://www.triathlonquebec.org/athletes/jeunesse-initiation/1-2-tri-go-english/).
PARTICIPATION. Qualifying the athlete's commitment to the activity.
$\checkmark$ Coach's scale of participation
TECHNIQUE. Analyzing the quality of the technique during the activity.
$\checkmark$ Chart of points to follow at the discretion of the facilitator
PERCEIVED EXERTION. Asking the athletes to determine for themselves their own level of difficulty during the activity. It will be different for each person and will vary with each session.
$\checkmark$ Speech test $\downarrow$ Coach's perceived exertion scale
$\checkmark$ Borg Scale 6-20 or 0-10 (with or without images)
HEART RATE. Calculating the heart rates of the athletes during the activity.
$\checkmark$ Heart rate meter $\checkmark$ Carotid or radial pulse over 20 seconds (multiply by 3)
TIME. Calculating, in seconds or minutes, the time it takes to perform the task.
$\checkmark$ Stopwatch
DISTANCE. Calculating, in metres or kilometres, the distance during the activity.
$\checkmark$ Measuring tape

## LEGEND

Swimming board

Cones

Basket


Personnal flotation device (PFD)
Pool noodle


Floating mat


Stopwatch
Bike helmet -

> Sports shoes

Hoop

## Golf ball

Chair

Bib

## WHAT IS A TRIATHLON?

A triathlon is a sport that encompasses three disciplines, which helps develop different skills related to each of these sports. In the summer, it is a combination of swimming, cycling and running. In winter, it is a combination of snowshoeing, skating and cross-country skiing. It's an opportunity to get active in the great outdoors and take the skills of these disciplines to the next level, fostering a healthy and active lifestyle. A triathlon also involves two essential transitions (swim-bike and bike-race) that require rarely utilized handling skills (such as putting on and taking off a bike helmet or putting on shoes with wet feet).
Duathlons combine two of the three disciplines mentioned above - running and cycling.

## RECOMMENDED CEILING DISTANCES BY AGE GROUP

(varies according to conditions, but the MAXIMUMS are below)

| AGE GROUP <br> (age on December 31 of the current year) | SWIMMING | CYCLING | RUNNING |
| :---: | :---: | :---: | :---: |
| YOUTH 1 <br> (U5 \& U7 - Ages 4 to 7) | 25 m | 1 km | 250 m |
| YOUTH 2 <br> (U7 \& U9 - Ages 6 to 9) | 50 m | 1.5 km | 500 m |
| YOUTH 3 <br> (U9 \& U11 - Ages 8 to 11) | 100 m | 3 km | 1 km |
| YOUTH 4 <br> (U11 \& U13 - Ages 10 to 13) | 200 m | 5 km | 1.5 km |
| U13-Ages 12 to 13 | 375 m | 10 km | 2.5 km |
| U15-Ages 14 to 15 | 375 m | 10 km | 2.5 km |

## TRIATHLON HISTORY

## EARLY 20TH CENTURY

Although the story is that triathlons were created in 1975 on Fiesta Island (CA) near San Diego, its origins are really from France, near Joinville-Le-Pont. Originally, in the early 20th century, the combination of the three sports included canoeing instead of swimming. Swimming was finally substituted for canoeing. The triathlon subsequently moved to Poissy (Paris suburb) and became the "Course des Débrouillards", then the "Course des Touche-à-tout".

1975
More than 50 years since its beginnings in France, San Diego held its first triathlon - and it was an instant success.

## 1978

On February 18, 1978, the Hawaii Ironman, which gave this discipline its pedigree, was a rigorous endurance test that included 4 km of swimming, 180 km of cycling and a marathon ( 42.2 km ). It was held annually in Kona. Gordon Haller, the winner of the first Ironman, completed the event in 11:46. The event has changed quite a bit since that time. Today, more than six million athletes around the world participate in triathlons. There is now one international federation and close to 100 national federations and events with a wide range of distances for both children and seasoned athletes.

## TRIATHLON QUÉBEC

## 1988

Triathlon Québec (TQ) is founded by Eric Boudreault and Eric Carrier. The federation is housed in the apartment of these 2 academics before moving to Saint-Joseph Boulevard in Montreal. Its offices are currently located at the Olympic Stadium.
1989
The International Triathlon Union (ITU) is established. The first president is Canadian Les McDonald. The ITU headquarters is located in Vancouver until 2014, when it moves to Lausanne, Switzerland, where it is still located today.

1995
Downtown Drummondville celebrates a major win: hosting the first Olympic-distance ITU Quebec World Cup. The second annual event takes place in 1996.

1999
Parc Jean-Drapeau, in Montreal, hosts the ITU Triathlon World Championships. Led by Danny McCann and Patrice Brunet, the event allows Simon Whitfield to qualify for the following year's Olympic Games after a spectacular race.

2000
The triathlon officially enters the Olympic Games in Sydney. Canadian Simon Whitefield wins the very first Olympic gold medal in history of this sport.

2005
The triathlon makes it's first appearance at the Quebec Games in Amos. In 2018, these games bring together young athletes aged 12 to 15 from 19 regions across Quebec.
2012
The Ironman company comes to Mont-Tremblant with Ironman 70.3 and Ironman. These extraordinary sports events bring together more than 6,000 amateur and professional triathletes from around the world and position the Mont-Tremblant region as a popular training destination.

2014
Mont-Tremblant hosts the Ironman 70.3 World Championships.
2015
TO receives the Maurice Award for Sports Federation of the Year at the Quebec Sports Gala.
2016
This year marks the return of the ITU World Cup, with the Montreal International Triathlon on the streets of Old Montreal.

2017
The first ITU Paratriathlon World Cup in Quebec is held at the multi-award-winning TriMemphré. The Montreal International Triathlon becomes a stop on the World Triathlon Series (WTS), bringing together the best athletes in the world.

2018
TQ celebrates its 30th anniversary and changes its logo for a fourth time to match Triathlon Canada's version. TQ is proud of reaching these milestones:

- 15,800 members ( $460 \%$ increase in 12 years!)
- 46,000 participants at events
- 60 clubs across Quebec
- 160 calendar events (including 120 triathlons)

Source: TRIATHLON QUÉBEC. Historique du triathlon. [online]
https://www.triathlonquebec.org/triathlon-quebec/historique-du-triathlon/ (June 3, 2019).

## BASIC RULES FOR SUMMER YOUTH EVENTS

For more details, consult Triathlon Québec website:
https://www.triathlonquebec.org/officiels-et-organisateurs/reglements/
Participants and volunteers are expected to practice good sportsmanship and courtesy at all times.

## SWIMMING

- Swimming can be done in a lake or pool (indoors or outdoors).
- Participants may use a flotation aid (personal floatation device, pool noodle or swimming board) for school events, up to and including the Youth 3 level.
- Propulsion items (fins) are not permitted.
- Aids may be placed in the water (for people to hold onto, swimming boards and boat), but participants may not use them to swim.


## - Clothing:

- Swimsuit (tri-function) or other aquatic clothing in good standing must be worn.
o Wearing the supplied bathing cap is mandatory, unless otherwise notified by the organizing committee.
- Wearing swimming goggles is not mandatory, but strongly recommended.
- Wearing a wetsuit is authorized when the adjusted water temperature is below $22^{\circ} \mathrm{C}$, except for the Coupe du Québec Jeunesse ( $20^{\circ} \mathrm{C}$ ). The wetsuit is mandatory when the adjusted water temperature is equal or lower than $15.9^{\circ} \mathrm{C}$.


## CYCLING



- The bicycle must be safe and in working order (see APPENDIX 2: BICYCLE ANATOMY for details).
- It is strongly recommended that bike stands be removed for safety reasons.
- Headphones are not allowed on the competition course.
- Draft-legal racing is not allowed during the race, except for the Coupe du Québec Jeunesse events with draft-legal racing for the U13 and U15 categories. Otherwise, each athlete must keep a distance of at least 10 m between his front wheel and the front wheel of the bike in front of him. Within the 10 $m$, athletes have a maximum of 20 sec to complete the pass. When the front wheel passes the front wheel of the other bike, the overtaken athlete has 20 sec to back up to 10 m to avoid the sill.


## - Clothing:

o Wearing a certified bike helmet is mandatory. The helmet must be in good condition, not broken or cracked. The helmet must be fastened before you even touch the bike.

- Any type of sports clothing is permitted, as long as the torso is covered (such as shirt or camisole).
- Bicycle or sports shoes must be properly fastened, in good condition and offer good support to the foot (sporty sole, not flattened).


## RUNNING

- Bibs must be worn on the front of the body for the running portion. For the Coupe du Québec Jeunesse only, the race number is not mandatory if the athletes have a shirt identifying their name on the front and back.
- Headphones are not permitted on the course.


## - Clothing:

- Any type of sports clothing is permitted, as long as the torso is covered (such as shirt or camisole).
- Sports shoes must be securely tied, in good condition and provide good foot support (athletic, not flattened soles).


## TRANSITION AREA

- Only participants have access to this area. Participants must register and pick up their bibs before entering the area to place their equipment. A parent may be allowed in the area for athletes in school events or the Youth 1, 2 and 3 categories, unless otherwise notified by the organizing committee.
- Cycling is not permitted in this area. Bicycles must be loaded and unloaded in designated areas only and you must be beside your bike the rest of the time.
- Helmets must be worn at all times when moving the bike. The helmet must be unbuckled and removed only when the bike is dropped off in the participant's area.
- Only equipment for the competition may be left in the transition area.


## PENALTIES

- For school events up to and including the Youth 4 level, there will be NO PENALTIES for athletes. The goal is to teach kids the rules, so they have a positive experience, have fun and want to be active!
- For the U13 and U15 categories, penalties of one minute (for draft-legal racing) and 10 sec (for other infractions) may be imposed. Unless otherwise stated, penalty time is added to the athlete's final time.


## OUTSIDE ASSISTANCE

- Outside assistance from volunteers and officials designated by the organizing committee is permitted for athletes participating in school events and the Youth 1, 2 and 3 categories.
- For athletes in the Youth 4, U13 and U15 categories, any outside assistance may result in disqualification.


## MARKING

Athletes are marked before entering the transition area. Bib numbers are written in black marker on the outside of both arms and legs to be clearly visible. The athlete's distance is written on the back of the left calf (Y-1, Y-2, Y-3, Y-4, U13 or U15).

## AWARDS \& MEDALS

To promote participation and a sense of accomplishment, no podiums are permitted for the Youth 1 to 4 distances. However, a participation prize may be given to everyone (such as a ribbon or medal).

## RECOMMENDED PROGRESSION BY AGE

Participation in a triathlon can start at any age, but the development of athletes differs greatly, depending on the age they begin to train. According to the Canadian Sport for Life's Long-Term Development (LTD) model, there are important steps to follow to ensure that athletes maintain an active lifestyle over the long term, optionally reaching higher levels of the sport. The following illustrates this progression and the maximum competition distances set by Triathlon Québec. These distances, classified by age group, comply with the LTAD model and the physical development and growth of athletes.

| CEILING COMPETITION DISTANCES |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Age 7 or younger | Ages 8-9 | Ages 10-11 | Ages 12-13 | Ages 14-15 | Ages 16-19 | Ages 18-19 |
| SWIMMING | 50 m | 100 m | 200 m | 300 m | 500 m | 750 m | 1.5 km |
| CYCLISME | 1.5 km | 5 km | 5 km | 10 km | 10 km | 20 km | 40 km |
| RUNNING | 500 m | 1 km | 2 km | 3 km | 4 km | 5 km | 10 km |

LONG-TERM DEVELOPEMENT STAGES (Sport for Life, 2019)

| ACTIVE START | FUNDAMENTALS | LEARN TO TRAIN | CRAIN |
| :---: | :---: | :---: | :---: | :---: | :---: |
| (Ages 15-19) | COMPETITIVE FOR LIFE |  |  |
| (Age 18 and over) |  |  |  |

PHYSICAL PERIODIZATION (Sport for Life, 2019)

## ACTIVE START <br> FUNDAMENTALS

## Basic movement skills:

running, jumping, throwing, agility, balance, coordination, speed, kinesthesia, gliding, floating and striking.

## TRAIN

LEARN TO TRAIN

## Sport-specific techniques:

physical knowledge related to the techniques and skills of the sport in question. Participation in multiple sports.

COMPETITIVE FOR LIFE FIT FOR LIFE

Physiological training: strength, power, anaerobic training, aerobic power and speed endurance.

## ORGANIZING A SCHOOL TRIATHLON

## $\square$

The following information is aimed at the organizing committee of a school triathlon. For more details on preparing and running this major event, please consult Triathlon Québec's Guide to Organizing a Trisco Event:
https://www.triathlonquebec.org/series-et-evenements/programme-triathlon-scolaire/
The SCHOOL TRIATHLON program is a free program offered by Triathlon Québec. Support is available to school-based stakeholders who would like to organize a triathlon. This program promotes physical activity and healthy lifestyle habits for young people. The values shared at these events are participation, self-respect and respect for others. Since 2012, this program has

## TR:ATHLON 5colaire

 experienced tremendous growth. During the 2019 season, some 60 school triathlons were held, involving nearly 20,000 young people across the province. This represents an increase in participation of approximately 2,000 young people since 2018 .
## ORGANIZING A SCHOOL TRIATHLON

If you would like to organize a triathlon, duathlon, aquathlon or winter triathlon at your school, Triathlon Québec would be delighted to help you make this event a success! By registering with the SCHOOL TRIATHLON program, the following services become available:

- Technical support at all times by email and phone
- Delivery of equipment to the event (such as finish arches, cones and flags)
- Gifts to all participants

All these services are available free of charge from Triathlon Québec.
©For an example of a SCHOOL TRIATHLON event, watch this video presented by Triathlon Québec, entitled School Triathlon in Valleyfield: https://www.youtube.com/watch?v=0_70Vz3L_tg

## SECTION 1 : SWIMMING

The goal of this section is to introduce the participants and equip the trainers to triathlon swimming, by working on swimming technique and movement in the water.

## EQUIPMENT

## BATHING CAP

For safety reasons and the purpose of separating the categories, it is mandatory for all swimmers to wear a bathing cap.


## SWIMMING GOGGLES

To see clearer underwater, swimming goggles are recommended, but not mandatory.

## WATER SPORTS CLOTHING

A bathing suit, tri-function suit (triathlon suit) or any other aquatic clothing in good standing is mandatory.


## INSULATED WETSUIT

Depending on the water temperature, air temperature and the athlete's category, wetsuits may be mandatory, permitted or prohibited (see Basic Rules for Summer Youth Events).

For more details, please refer to the official website of Triathlon Québec and the BASIC RULES FOR SUMMER YOUTH EVENTS section. http://www.triathlonquebec. org/officiels-et-organisateurs/reglements/

## SAFETY

- Make sure you have the required number of qualified supervisors to supervise young people and, above all, follow the rules of the establishment you are in.


## Recommended ratios for supervising pool activities

Age 7 or younger
Ages 8-11
Ages 12-15

1:6 (beginner)
1:10 (advanced)
1:8 (beginner)
1:10 (advanced)
1:8 (beginner)
1:12 (advanced)

- Stay at the edge of the pool, facing the pool, so that you can see every participant and provide extra supervision in the deep area.
- Talk to the participants beforehand about their level of comfort in the water (and even with their parents). Who needs a floatation aid? A noodle or a PFD (personal flotation device)? In fact, provide 1 pool noodle per youth, placed on the edge of the pool for
 them to hold on to, if necessary.
- For sessions, divide the pool into three sections: a 50 m round trip section (2 lanes), a deep section (DS) and a shallow section (SS). Mark the beginning of the slope with a cone at the edge of the pool.



## RECIPE FOR SUCCESS



Set up a safe area and group participants in pairs to prevent unforeseen accidents.


Plan ahead to have enough equipment for everyone to learn about their water environment.


Learn the rules (see BASIC RULES

FOR SUMMER YOUTH EVENTS).


Spend less time explaining everything and more time having fun.

## RECOMMENDED ACTIVITIES

It will be essential to take ownership of the activities to make them interesting and adapt them to the participants. For example, capture the imagination of the youngest by naming the movements after animals and awaken the competitive spirit of the oldest with contests.
These activities are easy to create and allow participants to experiment with the main skills of swimming, such as diving underwater, swimming and getting out of the water.

## OUT-OF-WATER EXERCISES

If you do not have access to a pool, we suggest that you use alternative exercises during your warm-up.

## ACTIVITY

1 THE QUEEN OF HEARTS

## TARGETED SKILLS

P $\quad \Psi$

## POOL ACTIVITIES

If you have access to a pool, here are some activities that will help kids get acclimated to the water and have fun. Initially, the important thing is to play in the water! In the shallow area, play a game of tag, water polo or basketball. Then, gradually introduce endurance in a fun way.


## OUT-OF-WATER EXERCISES

## ACTIVITY 1 <br> THE QUEEN OF HEARTS

OBJECTIVE: Training the body for aquatic activities.
MATERIAL: 2 : and 1 half-pack of cards per pair
Create a play area. Form pairs. In pairs, roll the dice to find out the exercise (dice total) and turn over 1 card for the number of repetitions. For example, ${ }^{\bullet} \bullet$, and ${ }^{7}=7$ jumping jacks. Finish the half-pack of cards (about 27) as quickly as possible.

## VARIATION:

- Add running between each roll of the dice (more difficult).

EVALUATION: $\checkmark$ Participation $\checkmark$ Technique $\vee$ Perceived exertion $\checkmark$ Heart rate

## 2 LEAP FROG

Knees bent, hands on the ground, jump to touch the sky with your fingers.


## 5 ARM CIRCLES

On one leg, arms straight out to the sides, move arms forward and backward.


## 8 STRETCH RUN

Move quickly around the circle with outstretched legs.


## 3 JUMPING JACKS

Stand with arms at your side, jump in an "X" shape and return to the initial position.


## 6 PLANK CIRCLE



Hands on the ground, stomach facing the ground, draw a circle by moving only your feet.

## 9 BROAD JUMP



Jump very far with two feet.

## 4 INCHWORM



Bring your feet to your hands, then take your hands away from your feet.

## 7 SPRINT

Run quickly around the circle.


## 10 SUPERMAN



Lying on your stomach, touch the sky with your arms and legs.

## 11 SIDEWAYS JUMPING JACK

Move around the circle by jumping sideways, raising and lowering your arms.

## 12 high KNEES

Sprint around the circle keeping your knees high and your upper body straight.


## POOL ACTIVITIES

## ACTIVITY 2

## THE SEA LION

OBJECTIVE: Swimming in the water.
MATERIAL: $1 \circlearrowleft$ per athlete and $1 \circlearrowleft$
Create a play area in the shallow area. Do 2 laps (back and forth), pushing a ball with your nose (like a sea lion). Walk on the bottom or swim. Time yourself to improve the next time or race against another athlete.

## VARIATION:

- Add challenges (for example, use only the right arm).

EVALUATION: $\checkmark$ Time $\vee$ Participation $\vee$ Perceived exertion


## ACTIVITY 3

## THE BULLDOG

OBJECTIVES: Starting off strong. Swimming quickly through the water. Becoming familiar with group swimming. Acting under pressure. Making a decision and changing direction quickly. Developing power. Developing a competitive spirit.

## MATERIAL: 1 per athlete (if necessary)

Create a play area in the shallow (beginners) or deep (advanced) area. Designate 1 bulldog and place him in the middle of the play area, with his back to the other athletes, who are placed against the wall. Name 1 colour. Anyone who has this colour on his bathing suit or bathing cap can cross the play area. At the signal, the other athletes try to cross without being tagged by the bulldog. Replace the bulldog or assist him (2 bulldogs), if touched. Use a pool noodle, if necessary.

## VARIATION:

- The bulldog must tag a specific body part (for example, right arm only).

EVALUATION: $\checkmark$ Participation $\checkmark$ Perceived exertion $\checkmark$ Heart rate


## ACTIVITY 4

THE SPLASH

OBJECTIVES: Starting off strong. Swimming quickly through the water. Changing direction quickly. Becoming familiar with group swimming. Acting under pressure. Developing power. Developing a competitive spirit.

## MATERIAL: 1 per athlete (if necessary)

Play in the shallow (beginners) or deep (advanced) area and designate a chaser at the edge of the pool, with his back to the other athletes, who are placed behind him. Name 1 colour and let all the athletes who have it on their swimsuit cross the pool. At "SPLASH," the chaser turns around and swims to catch 1 athlete before he touches the other side of the pool. The tagged athlete also becomes a chaser.

## VARIATION:



- Tag 1 specific body part (for example, right arm).

EVALUATION: $\checkmark$ Participation $\vee$ Perceive exertion $\checkmark$ Heart rate

## ACTIVITY 5

## THE FOUR CORNERS

OBJECTIVES: Starting off strong. Swimming quickly through the water. Becoming familiar with group swimming and team spirit. Developing power. Developing team and competitive spirit.

## MATERIAL: 1 per athlete (if necessary)

Form 4 teams and place them in the 4 corners of a rectangular play area. At the signal, swim as fast as possible to the opposite corner in the direction that's called out (along the sides of the play area). The last athlete to arrive is eliminated and must go to the center to tread water (swim in place). The team with the most swimmers at the end of the game wins!

I. Use a square play area for 4 competing teams or a rectangular area for the "width" teams to play
each other and the "length" teams to play each other (2 against 2 ).

EVALUATION: $\checkmark$ Participation $\vee$ Perceive exertion $\vee$ Heart rate

## POOL ACTIVITIES

## ACTIVITY 6

## THE SUPERHERO

OBJECTIVE: Maintaining a hydrodynamic position in the water.

## MATERIAL: 1 or 1 per athlete (if necessary) and 5

Create the play area with 5 cones. Take turns swimming to the first cone. Increase the power and speed of the kicking until you reach the second cone, then slide into the superhero position as far as possible ( 1 arm against the thigh, 1 arm extended in front, head in the water while holding your breath). Using the cones, measure the distance you cover. Choose how you swim between the first and second cones.


## VARIATIONS:

- Beginner: With 1 flotation aid (f) or ), swim the way you want.
- Intermediate: Extend 1 arm in front to hold the or , place the other arm on your thigh and kick your legs. Do the straight arm windmill stroke by changing the hand that holds the flotation device. Keep your head above water or learn the paced breathing of the crawl.

- Advanced: Swim the crawl without a flotation device.


EVALUATION: $\checkmark$ (Gliding distance) $\checkmark$ Participation $\checkmark$ Technique $\checkmark$ Perceived exertion

## THE CRAZY BEATING

OBJECTIVES: Working on beating technique, power and muscular endurance. Developing team and competitive spirit.

## MATERIAL: 1 per team and 1 or 1 per athlete (if necessary)

In one or more lanes, stand in teams of 3 on one side of the pool and leave 1 mat floating in the middle of the lane. At "GO," the first athlete kicks his legs as fast as possible to the mat. As soon as he reaches the mat, the second athlete does the same and so on, until ALL team members are on the mat. Then, everybody kicks together to the other side of the pool.

## VARIATIONS:



- Place the mat near the starting line and stand in pairs.
- Use swimming boards (maximum 3 athletes per team).
- In turn, in teams of 4 to 6,1 team member lies on the mat as the rest of the team pushes it.
- In deep water, do the vertical beating with fins, like a dolphin, arms out of the water, "rocket" or belly button out of the water. These kicks are ideal for keeping the waiting athletes busy

EVALUATION: $\checkmark$ Participation $\vee$ Technique $\vee$ Perceived exertion $\checkmark$ Heart rate
Source: Triathlon Canada, 2012

## ACTIVITY 8

## THE THREE HANDS

OBJECTIVES: Propelling yourself. Developing superior hand traction in the water.
MATERIAL: 1 (or ) per athlete and many $\triangle$
Create a play area in the shallow or medium-depth area. Place 2 cones to divide the pool lanes into 3 sections.


Experiment alternately with 3 hand positions: fork (fingers spread), ladle (hands closed, fists) and spoon (hand open, fingers together) to find the best one for traction in the water. Place 1 floatation device between your legs (pull-buoy) and use only your arms to propel yourself through the water.


The desired position is as follows: fingers close together and relaxed, not too close together, nor too far apart.

EVALUATION: $\checkmark$ Participation $\vee$ Technique $\downarrow$ Perceived exertion

## RED LIGHT, GREEN LIGHT

OBJECTIVE: Working on spotting (looking for buoys or markers in open water).
MATERIAL: 1 and 1
Create a play area. Place a coach on each side of the pool with 2 different coloured boards associated with 1 stroke or 1 speed (for example, red board up = SLOW, green board up = FAST, both coloured boards lifted = change stroke). Coaches raise 1 or 2 boards and change signals every 10-20 sec. Spot and follow the instructions as you swim. Swim for a set time and distance. While swimming, look at the coach at all times (look up).

## VARIATION:

- Move around to make the signals from different places (make the tracking more complex).

EVALUATION: $\checkmark$ Participation $\checkmark$ Perceived exertion $\checkmark$ Heart rate
Source: Triathlon Canada, 2012

## ACTIVITY 10

## THE DUCK HUNT

OBJECTIVES: Working on spotting (looking for buoys or markers in open water). Developing team and competitive spirit.

## MATERIAL: 3 of different colours (or other floatation devices)

Create a play area. Place athletes in a row facing the coach (with their backs to the pool), eyes closed (or head in the water). Associate points with the coloured ducks (for example, red = 30 points, green = 20 points, yellow = 10 points) and throw them all into the pool. At "GO," turn around, open your eyes and race into the water to catch the ducks. Repeat several times and accumulate points individually.

## VARIATIONS:

- Start off as a group and run in the water to the end of the pool. Along the length of the pool, throw the ducks in front of the group.
- Do the activity in open water, athletes with their back to the lake. At "GO," start swimming for points.
- For older or advanced athletes, use smaller objects (harder to spot).

EVALUATION: $\checkmark$ (Points earned) $\checkmark$ Participation $\checkmark$ Perceived exertion $\checkmark$ Heart rate
Source: Triathlon Canada, 2012

## SWIMMING WORKSHOPS

## WORKSHOP 11.1

OBJECTIVES: Working on power and muscular and cardiovascular endurance.
MATERIAL: 1 per athlete (if necessary) and 1
Create a play area and form teams of 2 to 4 athletes. Conduct 25 m (or more) team relays (for example, sprint crawl, kick crawl with swimming board or head above water crawl).

EVALUATION: $\checkmark$ Participation $\checkmark$ Time $\checkmark$ Technique $\checkmark$ Perceived exertion $\checkmark$ Heart rate

WORKSHOP 11.2
T/S P $\Psi$
OBJECTIVES: Working on muscular and cardiovascular endurance. Approaching the notion of speed. MATERIAL: 1 per athlete and 1 ©

Set aside 1 or more lanes or create a play area. Determine 3 swimming speeds for the crawl: V 1 = slow, V 2 = moderate, $\mathrm{V} 3=$ fast. Take turns swimming at different speeds: 25 m at $\mathrm{V} 1,25 \mathrm{~m}$ at V 2 and 25 m at V3. Then, do a kick crawl (with a swimming board).

EVALUATION: $\checkmark$ Participation $\checkmark$ Time $\checkmark$ Technique $\checkmark$ Perceived exertion $\checkmark$ Heart rate


## WORKSHOP 11.3

OBJECTIVE: Working on muscular and cardiovascular endurance.
MATERIAL: 1 ©
Set aside 1 or more lanes or create a play area. Swim a few metres in a given time. The remaining time is used as a break (for example, swim 50 m in 1 min . If completed in 45 sec , leave 15 sec for a break).

EVALUATION: $\downarrow$ Participation $\vee$ Time $\checkmark$ Technique
$\checkmark$ Perceived exertion $\checkmark$ Heart rate


WORKSHOP 11.4
P $\Psi$
OBJECTIVES: Working on muscular and cardiovascular endurance. Becoming familiar with swimming distance.
MATERIAL: 1
Set aside 1 or more lanes (or create a play area). Swim the distance as fast as possible. Repeat the activity throughout the sessions to see how the athletes progress.

| Ages 4-5 | Ages 6-7 | Ages 8-9 | Ages 10-11 | Ages 12-13 | Ages 14-15 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 25 m | 50 m | 100 m | 200 m | 375 m | 375 m |

EVALUATION: $\checkmark$ Participation $\checkmark$ Time $\checkmark$ Technique $\checkmark$ Perceived exertion $\checkmark$ Heart rate

## POOL ACTIVITIES

## WORKSHOP 11.5

OBJECTIVE: Working on mass starts.
MATERIAL: None
Set aside 1 or more lanes (or create a play area). Practice mass starts over 25 m . Gradually increase the number of swimmers, lanes and starts.

EVALUATION: $\checkmark$ Participation $\vee$ Technique $\vee$ Perceived exertion $\checkmark$ Heart rate

WORKSHOP 11.6
OBJECTIVES: Working on leg power and muscular and cardiovascular endurance.
MATERIAL: 1 © and many
(optional)
Create a play area, with the athletes in line, hands on wall. Do the crawl in intervals: a few seconds fast and a few seconds of rest (for example, 10/15, 10/10, 15/10).

## VARIATION:

- With the more advanced, do it in the deep area, on the spot, in an upright position. Take your hands out of the water to increase the difficulty. Hold weights in your hands, if preferred.

EVALUATION: $\checkmark$ Participation $\vee$ Technique $\checkmark$ Perceived exertion $\checkmark$ Heart rate

## WORKSHOP 11.7

OBJECTIVE: Developing your anaerobic capacity (without oxygen).
MATERIAL: Many sinking objects (not too heavy)
Create a play area in the deep area and scatter objects everywhere. Play alone or in teams. Fetch as many objects as possible in the deep area.

EVALUATION: $\checkmark$ Participation $\checkmark$ Technique $\checkmark$ Perceived exertion $\checkmark$ Heart rate


## WORKSHOP 11.8

OBJECTIVE: Do your physical fitness exercises in the pool.
MATERIAL: Many (optional) and $1 \backsim$ per laner
Set aside a number of lanes and install out-of-water stations. Combine swimming with out-of-water exercises. For example,

- 25 m swim and 10 push-ups out of the water
- 50 m swim and 30 second plank out of the water
- 25 m swim and 20 squats out of the water


## VARIATION:

- Do the exercises in a circuit.

EVALUATION: $\checkmark$ Participation $\checkmark$ Technique $\checkmark$ Perceived exertion $\checkmark$ Heart rate

## POOL ACTIVITIES

WORKSHOP 11.9
OBJECTIVES: Practicing overtaking, acceleration, group swimming and criss-crossing. Developing a competitive spirit.
MATERIAL: 1 Ø
Divide the teams by similar speed in different lanes. Start 1 by 1 in staggered order and try to catch/ pass the swimmer in front of you. Leave about 5 sec between swimmers.

EVALUATION: $\checkmark$ Participation $\vee$ Technique $\vee$ Perceived exertion $\checkmark$ Heart rate

WORKSHOP 11.10
OBJECTIVES: Working on leg power and muscular and cardiovascular endurance.
MATERIAL: 1 per athlete and 1 ©
Set aside 1 or more lanes or create a play area. Do 25 m of the fast kick crawl and 25 m of the breaststroke. Do 12.5 m of the fast kick crawl and 12.5 m of the slow kick crawl. Vary the distance to cover.

EVALUATION: $\checkmark$ Participation $\checkmark$ Time $\checkmark$ Technique $\checkmark$ Perceived exertion $\checkmark$ Heart rate

WORKSHOP 11.11
OBJECTIVE: Developing muscular and cardiovascular endurance (U13 and U15).
MATERIAL: 1 Ø
Set aside 1 or more lanes or create a play area. Swim 200 m as fast as possible. Aim for $3: 20$ or less.
EVALUATION: $\checkmark$ Participation $\vee$ Time $\checkmark$ Technique $\checkmark$ Perceived exertion $\checkmark$ Heart rate

## APPENDIX 1: HOW TO SWIM THE CRAWL BETTER

Here are some technical points to look for in athletes.

- HEAD. Keep your eyes down and only one side of the head (one eye) turns to the side when breathing.
- ARMS. Support yourself with your hand and forearm, bending your elbow to $90^{\circ}$. During the recovery, be relaxed and let yourself glide for a moment. Maintain a steady, fluid windmill stroke (without stopping).

- BODY. Stay horizontal and lie down as much as possible. Let your shoulders and hips move from side to side as you do the "straight-arm" windmill stroke and breathe.

- LEGS. Keep your ankles flexible and legs loose. Kick from the hip. Maintain a constant and fluid stroke (without stopping).
- COORDINATION, RHYTHM AND SPEED. Synchronize breathing with body rotation. Breathe every 2-3 strokes.

©For an example of a proper crawl technique, watch the video. Animated Freestyle Swimming
Visualisation - Mr Smooth : https://www.youtube.com/watch?v=lyR7JYIIk9U


## SECTION 2: CYCLING

The idea of this section is to introduce athletes and trainers to the sport of triathlon cycling by working on basic skills such as riding alone or in a group, braking, getting on/off a bike and climbing a hill.

## EQUIPMENT

## SAFE AND FULLY FUNCTIONAL BICYCLE

As a minimum requirement for training, we suggest having at least 1 bike per 2 athletes. For young people who do not know how to ride a bike on their own, use the bikes as scooters (push on the ground with the feet) or remove the pedals to promote balanced propulsion.

Refer to APPENDIX 2: BICYCLE ANATOMY for details on bicycles in good standing.

## To build a fleet of bicycles...

- Put out a call to families who might be willing to donate, loan or sell bikes at low cost.
- Find out if other triathlon clubs in your area would be willing to share their bikes.
- Partner with other schools or clubs in your area to make a group purchase.
- Contact the municipal Ecocentre nearest you.
- Visit SOS VÉLO, a company that specializes in manufacturing recycled bicycles: http://www.sosvelo.ca/
- Visit LE VÉLO VERT, an organization that recycles old bikes: http://www.levelovert.com
- Visit garage sales in the spring, where you can often find bikes.
- Visit websites that sell various items (such as Kijiji and Marketplace on Facebook).
- Look for a sponsorship, because you have nothing to lose by trying!


## SPORTS CLOTHING

Clothing that covers the torso is mandatory, along with cycling or sports shoes.
For more details, please refer to Triathlon Québec's official website and APPENDIX 2: BICYCLE ANATOMY.
http://www.triathlonquebec.org/officiels-et-organisateurs/reglements/

## CERTIFIED BIKE HELMET

Each participant must have a bike helmet in good condition (not broken or cracked) and adjusted to his head. It is recommended that athletes bring their own helmet for fitting and hygiene purposes. To learn how to put it on and fasten it, remember the 2-4-1 rule - 2 fingers between the edge of the helmet and eyebrows, 4 fingers to form Vs under the ears and 1 finger between the chin and the strap.


Source: Ontario Ministry of Transportation, 2019.
Source: Société de l'Assurance Automobile du Québec, 2019.

## SAFETY

Before getting on your bike, make sure that your shoes are well laced, the kickstand is up and the distance between each participant remains at 1 bike between them.
Be sure to identify the areas of the course (such as loading/unloading areas and transition areas) and various risks (poles, benches, steep drop-offs) with visual markers (cones, hoops, skipping ropes, adhesive tape on the ground). Specify the direction of travel to prevent head-on collisions.

| RECOMMENDED RATIOS FOR SUPERVISING CYCLING ACTIVITIES |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | BEGINNER | ADVANCED |  |  |  |
| Age 7 or younger | $1: 5$ | $1: 6$ |  |  |  |
| Ages 8-11 | $1: 5$ | $1: 6$ |  |  |  |
| Ages 12-15 | $1: 5$ | $1: 8$ |  |  |  |

Before you use any bike on a gym floor, ASK THE OWNER OR MANAGEMENT FOR PERMISSION. Keep in mind that tires tend to leave marks on the floor! In confined spaces, do not try to go fast. Work on technical ( $T$ ) and tactical/safety (T/S) skills rather than physiological (P) skills.


## SAFE CYCLING

Signal your maneuvering intentions with your arms.


LEFT TURN


RIGHT TURN


PREPARE TO STOP

For more information on safe cycling, refer to the Vélo Québec program, Share the Road.
https://partagelaroute.velo.qc.ca/en


Set up a safe course (see SAFETY page).


Plan ahead to have enough equipment for everyone (1 bike per 2 athletes).



Spend less time
explaining everything and more time having fun!

If you choose to go cycling outside, you must bring a first aid kit, a cellphone and everything you need to change a flat tire.

## RECOMMENDED ACTIVITIES

Beyond the recommended activities, encourage young people to ride their bikes with their family and run errands as often as possible, since it is important to become comfortable with basic bike manoeuvres (getting on a bike, pedaling, braking and getting off a bike).


## ACTIVITY 12

## THE SKILL COURSE

OBJECTIVES: Practicing basic movements and manoeuvres: balancing, turning, stopping, braking, riding beside the bike and getting on/off the bike. Working as a team.

MATERIAL: 1 per athlete, 1 per pair, many $\leq, 2$ and $1 \circlearrowleft$
Create a play area and set up a zigzag course of about 200 m (cones) and a winding course (with 2 skipping ropes). Form pairs. The first athlete puts on and attaches his helmet, picks up the bike from the ground and walks beside it, holding the handlebars, to the boarding area, then completes the course WITHOUT TOUCHING THE OBSTACLES. Change roles in the transition area.


With every turn, the pedal on the inside of the turn must be raised to avoid touching the ground.

## VARIATIONS:

- Change the obstacles on the course and the level of difficulty.

- Expand the play area (outside) to focus more on the physiological component (endurance).

EVALUATION: $\checkmark$ Participation $\vee$ Time $\vee$ Technique $\vee$ Perceived exertion $\checkmark$ Heart rate

## ACTIVITY 13

## THE SPEED TEST

OBJECTIVES: Practicing basic movements and manoeuvres (balancing, turning, stopping, braking, walking or running beside the bike, getting on the bike, getting off the bike, accelerating, slowing down and standing). Working as a team.

## MATERIAL: 1 per athlete, 3 many $\leq$ and $1 \oint$

Create 3 lanes and leave space for getting on and off the bike. Assign 1 team per lane. At the signal, complete the course and return to the right or left side
(1) Like on a scooter, propel yourself with 1 or 2 feet on the ground.
(2) Get on the bike, accelerate and slow down in the braking zone. Stop as close to the line as possible.
(3) After the pedaling zone, ride your bike sitting or standing on the pedals.


## VARIATION:

- Change the obstacles and the level of difficulty.

EVALUATION: $\checkmark$ Participation $\checkmark$ Time $\checkmark$ Technique $\checkmark$ Perceived exertion $\checkmark$ Heart rate
Pump the front and back brakes, so you don't skid or lift the rear wheel.
Each drill in each lane can also be practiced in separate activities (workshops), so that all athletes practice the same skill at the same time.

## ACTIVITY 14

## THE TECHNICAL COURSE

OBJECTIVES: Practicing complex movements and manoeuvres (balancing, turning, stopping, braking, moving alongside the bike, boarding, disembarking, accelerating, slowing down and standing pedaling).

MATERIAL: 4,4 雨 many $1 \circlearrowleft$
Divide the field into 4 lanes and form pairs. At the signal, ride the bike and come back by the right or the left.
(1) Straddle the bike while standing or moving (gliding).
(2) Increase resistance to make standing pedaling easier, then maintain balance to touch the chair with your closest hand (see APPENDIX 3: CHANGING BIKE GEARS, if necessary).
(3) Slalom between cones.
(4) Maintain balance in a figure 8 pattern.


When boarding, distribute your weight evenly and look far ahead for balance. To maintain a steady speed, gradually steer the handlebars toward the target area without hitting it.

Each drill, in each lane, can also be practiced in separate activities (workshops) so that all athletes practice the same skill at the same time.

## VARIATION:

- Change the obstacles and increase the level of difficulty.

EVALUATION: $\checkmark$ Participation $\vee$ Time $\vee$ Technique $\checkmark$ Perceived exertion $\checkmark$ Heart rate

## ACTIVITY 15

## SKILLED DUET

OBJECTIVES: Mastering imbalances. Control the bike at low speed. Working as a team.
MATERIAL: 8 , 8 many $\triangleq 1$ relay baton, 1 rocker board (or narrow board) and 1 (
Set up 4 lanes, assign 2 bikes per station and form pairs. At the signal, do the challenge and return by the right or the left.
(1) In pairs, exchange a relay baton.
(2) Ride to knock down the cones with your feet. Hold your course. The one on standby picks up the cones.
(3) Cross the rocker board (or narrow board) while keep your balance.
(4) As a pair, pedal slowly to be the last without touching the ground!


Each event, in each lane, can also be practiced in separate activities (workshops) so that all athletes practice the same skill at the same time.

EVALUATION: $\checkmark$ Participation $\vee$ Time $\checkmark$ Technique $\checkmark$ Perceived exertion $\checkmark$ Heart rate

## ACTIVITY 16

## THE TEDDY PICKING

OBJECTIVES: Picking up objects from the ground. Practicing cycling with one hand. Mastering counterbalancing.
MATERIAL: 1 , 1 and $1 \square$ per team, many ${ }^{2}$, many $\leq$ and 10
Do a course with medium-sized objects on the ground ( and ). At the end of the course, use 1 basket large enough to hold the objects. Form teams of 2 to 4 athletes. Make turns riding the bike, completing the route and picking up an object. Put it in the basket and do the relay.

VARIATION:

- Enlarge the play area to focus more on the physiological component (cardiovascular and muscular endurance).

EVALUATION: $\vee$ (Objects collected) $\vee$ Participation $\vee$ Time $\vee$ Technique $\checkmark$ Perceived exertion $\checkmark$ Heart rate

## ACTIVITY 17

## THE FIGURE CYCLING

OBJECTIVES: Working on bike handling and group traffic.
MATERIAL: 1 and 1 per athlete, $\leq$ (or eco-friendly chalk) and
Draw shapes on the ground (square, circle, triangle or figure 8) with cones or eco-friendly chalk. Wide shapes ( 10 m to 15 m ) = easier. Narrow shapes $(5 \mathrm{~m}$ to 8 m$)=$ more difficult. Pedal around the shapes (easy) or inside (difficult), trying to stay close to the line without touching it. Faster = easier. Slower = more difficult.

## VARIATIONS:

- SHRINKING CIRCLE. Pedal inside the circle (same direction). During the race, the coach pushes the cones to narrow the circle. If an athlete puts a foot on the ground, he/she is eliminated (prepare another activity for the eliminated bikers).
- GET OUT OF THE WAY! Ride in pairs side by side, one on the outside and the other on the inside of the circle. Try to tag each other with your hands until one of you put a foot on the ground (shoulders for advanced athletes) - to develop group racing skills needed for draft-legal racing competitions.

EVALUATION: $\checkmark$ Participation $\checkmark$ Time $\checkmark$ Technique $\checkmark$ Perceived exertion $\checkmark$ Heart rate
Source: Triathlon Canada, 2012

## ACTIVITY 18

## THE TIGHTROPE BIKER

OBJECTIVES: Working on handling the bike and riding in a straight line.
MATERIAL: 1 and 1 per athlete, 1 red card $\square$, green card $\square$ and eco-friendly chalk (or $\leq$ )
Draw 1 line on the ground (or 2 rows of cones). Start pedaling 10 m before the line (or the cones) to gain speed, then try to ride in a straight line. Imagine that the line is suspended 100 m above the ground!

## VARIATIONS:

- Slow down to increase the difficulty.
- OVER-THE-SHOULDER CHECK. The coach stands on the line (or at the tunnel entrance) with 2 cards ( 1 red and 1 green) in each hand. At the halfway point, the coach raises 1 card (or 2 or none). Athletes do an over-the-shoulder check, call out the colour, then continue pedaling in a straight line.
- Expand the play area to further challenge the physiological (endurance) component.

EVALUATION: $\checkmark$ Participation $\checkmark$ Technique $\checkmark$ Perceived exertion $\checkmark$ Heart rate
Source: Triathlon Canada, 2012

## ACTIVITY 19

## GIVE ME FIVE!

OBJECTIVE: Working on the handling of the bike with one hand.

## MATERIAL: 1 and 1 per athlete

Create a play area and review one-handed, straight-line bike handling. Ride for 1 min with your group to get as many high fives as possible, passing or riding side by side. Pedal and have both feet on the pedals when tapping to make it count. Go in any direction and be aware of others around you! One tap per person before moving on to someone else.

## VARIATION:

- Expand the play area to focus more on the physiological component (endurance).

EVALUATION: $\sqrt{ }$ (Cumulative high fives) $\checkmark$ Participation $\vee$ Technique $\vee$ Perceived exertion $\checkmark$ Heart rate

Source: Triathlon Canada, 2012

## LIKE CAT AND MOUSE

OBJECTIVES: Working on the handling of the bike with one hand and counterbalancing.

## MATERIAL: 1 and 1 per athlete, many $\Delta \Delta$ and

Create a play area with various cones, 4 to 5 m apart. Pedal and try to touch the cones with your hand.
To succeed, get off the saddle and balance on the pedal closest to the object in the down position.
Counter the incline with the opposite arm (the OPPOSITE of the turning technique, where the outer foot, farthest from the turn, is downward).

## VARIATIONS:

- Pick up different objects (bottles, tennis balls or pens).
- Place a cone in the middle. The first to touch it 5 times correctly wins. Learn to pay attention to others while keeping control of the bike (to learn how to ride).
- Expand the size of the play area to focus more on the physiological component (endurance).

EVALUATION: $\checkmark$ Participation $\vee$ Time $\checkmark$ Technique $\checkmark$ Perceived exertion $\checkmark$ Heart rate
Source: Triathlon Canada, 2012

## ACTIVITY 21

## TEAM GAMES

OBJECTIVE: Working on the handling of a bike with one hand.
MATERIAL: 1 and 1 per athlete, many balls and $1 \circlearrowleft$
Mark out a play area and set up different drills:

- Pedal side by side passing a ball to each other. Make sure to use both hands.
- Kick a ball while sitting on the bike. Passing with 1 partner.
- Dribble while cycling (works best on concrete with sports balls).
- In pairs, pedal slowly to finish last without touching the ground!


## VARIATION :

- Expand the play area to focus more on the physiological component (endurance).

EVALUATION: $\checkmark$ Participation $\vee$ Time $\checkmark$ Technique $\checkmark$ Perceived exertion $\vee$ Heart rate
Source: Triathlon Canada, 2012

## ACTIVITY 22

## THE ZIGZAGS

OBJECTIVE: Working on handling the bike.
MATERIAL: 1 and 1 per athlete, $8 \Delta \Delta$ and $1 \circlearrowleft$
Find an empty parking lot to create the play area. Pedal in a snake pattern around the inside of each parking space. Go as close to the lines as possible without touching them.

## VARIATIONS:

- Make a $10 \mathrm{~m} \times 10 \mathrm{~m}$ square with 8 cones ( 4 in the corners, 4 on the sides). Ride and create different patterns around the cones. Focus on the corners and angles.

- Enlarge the play area to focus more on the physiological component (endurance).
- Narrow the play area to focus on the technical component.

EVALUATION: $\sqrt{ }$ Participation $\vee$ Time $\vee$ Technique $\vee$ Perceived exertion $\vee$ Heart rate
Source: Triathlon Canada, 2012

## ACTIVITY 23

## THE PENNY TEST

## OBJECTIVE: Working on emergency stops.

## MATERIAL: 1 and 1 per athlete and many (106)

Create a play area. Place dimes (or slightly larger fake coins) 100 m from the starting line. At "START", sprint towards the coins and stop suddenly, placing the front wheel on the coin.

## VARIATION:



- Enlarge the play area to focus more on the physiological component (endurance).

EVALUATION: $\checkmark$ Participation $\vee$ Technique $\checkmark$ Perceived exertion $\checkmark$ Heart rate
Source: Triathlon Canada, 2012

## THE OBSTACLE

OBJECTIVE: Working on changes in direction and reaction time.

## MATERIAL: 1 and 1 per athlete, 1 and coloured objects.

Create a play area and place 2 coloured objects 100 m to 150 m from the starting line. At "START", go as fast as possible towards the objects. The coach is near the objects. As the athletes approach, the coach calls out the colour of 1 of the objects and the athletes must try to avoid it without touching it.

For novice athletes, call out the colour when they are 5 m to 6 m away from the objects. For advanced athletes, do the exercise with 1 partner or in trio (riding in a group increases the difficulty).


## VARIATION:

- Enlarge the play area to focus more on the physiological component (endurance).

EVALUATION: $\checkmark$ Participation $\checkmark$ Time $\checkmark$ Technique $\checkmark$ Perceived exertion $\checkmark$ Heart rate
Source: Triathlon Canada, 2012

## ACTIVITY 25

## THE BALANCE

## OBJECTIVE: WORKING ON BALANCE.

## MATERIAL: 1 and 1 per athlete

Create a play area. Do the exercises, regardless of the athletes' level.

- THE STAR. Run beside the bike, then lie on your stomach on the saddle.
- ONE HAND AND ONE FOOT. Glide with your right hand and left leg in the air, then switch. Try with your hand and leg on same side.
- WITHOUT HANDS. Bike without hands (for advanced athletes, try clapping or stomping). Cycling with 1 hand can prepare you for cycling without hands.


At all levels, these balance exercises can increase your comfort on the bike and encourage the development of advanced skills needed for cornering, group riding and bike handling.

EVALUATION: $\checkmark$ Participation $\vee$ Technique $\vee$ Perceived exertion $\checkmark$ Heart rate
Source: Triathlon Canada, 2012

## THE EIGHT

OBJECTIVE: Working on bike handling and group traffic.
MATERIAL: 1 and 1 per athlete, $2 \leq$ or $\triangle \Delta$ and $1 \circlearrowleft$
Create a play area. Place 2 cones far apart (easier) or close together (more difficult). Pedal alone (easier) or with others (more difficult) in a figure 8 pattern around the cones.

EVALUATION: $\checkmark$ Participation $\vee$ Time $\vee$ Technique $\vee$ Perceived exertion $\checkmark$ Heart rate


## ACTIVITY 27

## BICYCLE WORKSHOPS

## WORKSHOP 27.1

OBJECTIVE: Practicing group traffic maneuvers (U13 and U15).
MATERIAL: 1 and 1 per athlete and $1 \circlearrowright$
Ride on a safe, low-traffic road (or bike path). Practice group traffic manoeuvres: platooning and lane riding.

[^0]
## BICYCLE WORKSHOPS

## WORKSHOP 27.3

OBJECTIVES: Working on muscular and cardiovascular endurance. Becoming familiar with your racing distance.
MATERIAL: 1 and 1 per athlete and $1 \circlearrowright$
Race on a safe, low-traffic road (or bike path). Race the distance as fast as possible.

| Ages 4-5 | Ages 6-7 | Ages 8-9 | Ages 10-11 | Ages 12-13 | Ages 14-15 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1 km | 1.5 km | 3 km | 5 km | 10 km | 10 km |

Repeat over throughout the sessions to see improvement in the athletes, ideally under similar conditions.

## VARIATION:

- Make the course more complex (add $90^{\circ}$ and $180^{\circ}$ turns).

EVALUATION: $\checkmark$ Participation $\checkmark$ Time $\checkmark$ Technique $\checkmark$ Perceived exertion $\checkmark$ Heart rate

## WORKSHOP 27.4

OBJECTIVE: Working on muscular and cardiovascular endurance.

On a safe, low-traffic road (or bike path), do various short and long intervals:

- 30 sec fast/1 min rest (1:2)
- 30 sec fast/30 sec rest (1:1)
- 1 min fast/30 sec rest (2:1)
- 1 min fast $/ 30 \mathrm{sec}$ rest $(2: 1)$


EVALUATION: $\checkmark$ Participation $\checkmark$ Time $\checkmark$ Technique $\checkmark$ Perceived exertion $\checkmark$ Heart rate

## BICYCLE WORKSHOPS

## WORKSHOP 27.5

OBJECTIVE: Performing complex moves and maneuvers.
MATERIAL: 1 and 1 per athlete, 1 and many $\leqslant$
Set up a complex skill course with obstacles (e.g., figure 8, tight slaloms and jumps). Take turns completing the course as quickly as possible.

## VARIATION:

- Enlarge the play area to focus more on the physiological component (endurance).

EVALUATION: $\checkmark$ Participation $\checkmark$ Time $\checkmark$ Number of errors (dropped or missed cone $=5 \mathrm{sec}$ penalty. Arrowing $=10 \mathrm{sec}$ penalty. Foot on ground $=5 \mathrm{sec}$ penalty) $\checkmark$ Technique $\checkmark$ Perceived exertion $\checkmark$ Heart rate


LES ZÉCLAIRS. Circuit d'habiletés. Club de triathlon de Nicolet https://www.leszeclairs.com/coupe-jeunesse

4 SINGLE SLALOM: 1.1 m between cones.
17 FIGURE EIGHT: 2 m between the 2 cones.
23 CIRCLE: 3 m in diameter.
49 SHUTTLE SPRINT: 5 m between each cone (possible acceleration).
30. JUMP: height of the board from 10 to 15 cm .

## APPENDIX 2: A BIKE IN GOOD SHAPE

ANATOMY OF A VALID BIKE


CHAINRINGS

BEFORE GETTING ON YOUR BIKE, MAKE SURE THAT...the tires are inflated according to current standards.the brakes on each wheel (front and rear) are working properly.the bike is the right size for the athlete.the saddle is the right height (allowing you to slightly bend your knee when the pedal is at its lowest).

## AUTORIZED ACCESSORIES

## BIKE

All types of bikes are permitted.
$\int$ Removable aero bars are not permitted.
$\}$ Disc brakes are permitted.

## PEDALS

Platform pedals are permitted.
5 Cage pedals with straps are prohibited.
Cage without straps are permitted.
All clip-on pedal systems (road and mountain) are permitted (U13 and U15).
For U11 athletes and below, only pedals with built-in cleats are permitted. The sole (or sole adapter) must always be in direct contact with the ground.

## APPENDIX 3: CHANGING BIKE GEARS

To change gears, continue pedaling forward while reducing the pressure on the pedal. This makes it easier to shift gears and less likely to damage the bike.

Before stopping, shift to a lower or easier gear*.

Choose a more difficult gear when pedaling in a standing position or in a situation where you're cycling more than 100 revolutions per minute.


Gradually shift to an easier gear ratio as the incline increases.


On flat ground, use gears that make pedaling easier or increase the pedaling speed ( 90 to 100 revolutions per minute).

*The gear ratio is the relationship between the position of the chain on the small chainring (front) and the gear (rear). For example, when the chain is on the small chainring and the larger gear, it is easy to pedal on flat ground. The word "gear" is also used to refer to the gear ratio.

AVOID TANGLING THE CHAIN!


## SECTION 3: RUNNING

The objective of this section is to introduce athletes and trainers to triathlon running by working on running technique and focusing on physical training.

## EQUIPMENT

## SPORT SHOES

Shoes must be suitable for running and properly tied.

## SPORTS CLOTHING

Clothing must cover the torso at all times.
For more details, please refer to Triathlon Québec's official website and the BASIC RULES FOR SUMMER YOUTH EVENTS section:
http://www.triathlonquebec.org/officiels-et-organisateurs/reglements/

## SAFETY

Identify the areas on the course (the entrance and exit of the lap) and the different risks (such as poles and steep slopes) with visual markers (cones, hoops, tape, chalk). Specify the running direction to prevent head-on collisions.

## RECOMMENDED RATIOS FOR COACHING RUNNING ACTIVITIES

## Age 7 or younger 1:10

Ages 8-11 1:12

Ages 12-15 1:12

## RECIPE FOR SUCCESS



Set up a safe area.


Plan to have enough equipment for everyone.


Learn the rules (see the BASIC RULES FOR SUMMER YOUTH EVENTS section).


Spend less time explaining everything and more time having fun!

## RECOMMENDED ACTIVITIES

Take the focus off running by setting up a playful environment. Play games that require running, such as tag, as a warm-up. To cover long distances ( $75 \%$ to $100 \%$ of the official distance) while having fun, create a rally in the neighborhood and finish with refreshments. Finally, adapt the activities and themes to the participants (such as their age, level and group size).

To work on technique (T), conduct running technique workshops using APPENDIX 5: HOWTO RUN BETTER.

## ACTIVITIES

| $\mathbf{2 8}$ THE SNAKE |  | P |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- |
| $\mathbf{2 9}$ IN THE MANNER OF... | T |  | P |  |  |
| $\mathbf{3 0}$ THE MIRROR |  |  | P |  |  |
| $\mathbf{3 1}$ THE VARIOUS SPEEDS |  | T/S | P |  |  |
| $\mathbf{3 2}$ THE CIRCUIT TRAINING |  |  | P |  |  |
| $\mathbf{3 3}$ THE INTERVAL TRAINING |  |  | P |  |  |
| $\mathbf{3 4}$ THE OBSTACLE COURSE |  |  | P |  |  |
| $\mathbf{3 5}$ THE TREASURE |  |  | P |  |  |
| $\mathbf{3 6}$ MOUNTAINS AND VALLEYS |  |  | P |  |  |
| $\mathbf{3 7}$ THE TAG |  |  | $\mathrm{T} / \mathrm{S}$ | P |  |
| $\mathbf{3 8}$ THE RARAJIPARI |  |  | P |  |  |
| $\mathbf{3 9}$ THE TOWER | 40.1 |  |  | P |  |
| $\mathbf{4 0}$ RUNNING |  |  |  |  |  |
| WORKSHOPS | 40.2 |  |  | P |  |

## THE SNAKE

OBJECTIVES: Moving around and warming up the joints. Developing agility and coordination.

## MATERIAL: None

Create a lane or play area. Line up behind the leader, like a snake. Imitate the leader through movement, including skipping, jogging forward and backward, running with big and small steps, etc.

EVALUATION: $\checkmark$ Participation $\vee$ Technique $\vee$ Perceived exertion $\checkmark$ Heart rate

## ACTIVITY 29

## IN THE MANNER OF...

OBJECTIVES: Warming up the joints. Refining running technique.

## MATERIAL: Many $\triangleq$ and 1 ©

Create a lane or space to run back and forth between 2 cones. Experiment with different types of runs: heavy and noisy steps, quiet and small steps, giant steps and stiff like a soldier. Conclude with the correct technique (see APPENDIX 4: HOWTO RUN BETTER).

## VARIATION:



- For the more advanced athletes, use the real names of the moves and add complexity, such as skip A, skip B and tag.

EVALUATION: $\checkmark$ Participation $\vee$ Time $\checkmark$ Technique $\checkmark$ Perceived exertion $\checkmark$ Heart rate

## ACTIVITY 30

## THE MIRROR

OBJECTIVES: Warming up the joints. Developing agility and coordination.
MATERIAL: 1
Create a play area. In front of the young boys and girls, the coach moves in different ways and directions, giving instructions. Use replacement exercises for swimming (see THE QUEEN OF HEARTS activity in the SWIMMING section).


## VARIATION:

- Partner up and do the same thing with him/her.

EVALUATION: $\sqrt{ }$ Participation $\vee$ Time $\checkmark$ Technique $\vee$ Perceived exertion $\vee$ Heart rate

## THE RACE AT VARIOUS SPEEDS

OBJECTIVES: Controlling your running speed, acceleration and deceleration.

## MATERIAL: Many $\Delta \Delta \Delta$ and 1 ©

Set up a running track with cones that mark a change of speed: green for slow pace, yellow for medium pace and red for fast pace. Run on the track, adhering to the mandatory speed levels.


MEDIUM PACE
SPRINT
EVALUATION: $\checkmark$ Participation $\vee$ Time $\checkmark$ Technique $\vee$ Perceived exertion $\checkmark$ Heart rate

## ACTIVITY 32

## THE CIRCUIT TRAINING

OBJECTIVE: Developing athletic skills through running.
MATERIAL: Many $\quad 2$, 2 and 1 Ø
Prepare 6 stations in a park. Perform for 20 sec and allow for 30 sec of transition. Repeat for each exercise. Take a 2 min break and repeat all 6 stations (for example, sprint between 2 lines, step up and down on a bench, jump with a rope, walk in lunges between 2 lines, bend elbows to support yourself on a bench (dips) and hold a plank position on elbows).

## VARIATIONS:

- Modify the exercises.
- Increase the number of sets or the length of the intervals.

EVALUATION: $\checkmark$ Participation $\vee$ Technique $\vee$ Perceived exertion $\checkmark$ Heart rate

## THE INTERVAL TRAINING

OBJECTIVE: Developing athletic skills through running.

## MATERIAL: Many $\leq$ and 1 Ø

On a running track, move in the same direction. Jog for 30 sec , then walk for 30 sec . Repeat for 12 to 15 min .

## VARIATION:

- Prepare pyramid training (increase the length at each interval, then decrease it).
- 30 sec jog $/ 30 \mathrm{sec}$ walk (rest)
o 45 sec jog $/ 45 \mathrm{sec}$ walk (rest)
o 60 sec jog $/ 60$ sec walk (rest)
o 90 sec jog $/ 90 \mathrm{sec}$ walk (rest)
o 60 sec job $/ 60$ sec walk (rest)
o 45 sec jog $/ 45 \mathrm{sec}$ walk (rest)
- 30 sec jog $/ 30 \mathrm{sec}$ walk (rest) t


EVALUATION: $\checkmark$ Participation $\checkmark$ Technique $\checkmark$ Perceived exertion $\checkmark$ Heart rate

## ACTIVITY 34

## THE OBSTACLE COURSE

OBJECTIVES: Working on different fundamental skills. Developing team and competitive spirit.
MATERIAL: Obstacles (such as cones and benches) and 1 Ø
Create a play area with obstacles. Incorporate different methods of movement: jumping, lateral movements and running. With younger children, use playful themes (such as jungle runs and dinosaur sprints). With the more advanced athletes, set up a longer cross-country course with different technical sections (running with small fast steps between cones). Prepare for split training and group runs. Activate and control the body to effectively overcome agility challenges (agility = body in motion).

Obstacles force athletes to deviate from a straight running path and to use their stabilizing muscles in different ways.

EVALUATION: $\checkmark$ Participation $\checkmark$ Time $\checkmark$ Technique $\checkmark$ Perceived exertion $\checkmark$ Heart rate
Source: Triathlon Canada, 2012

## THE TREASURE

OBJECTIVES: Working on different fundamental skills. Developing team and competitive spirit.

## MATERIAL: Many $\leq, 2 \square$ and 40 treasures

Create a play area on a large rectangular space. Divide the group and the space in 2 with cones. Place 1 bin at each end with about 20 pieces of treasure. Steal the treasure from the other team and bring it back to your own bin to be the one with the most. The players are sheltered in their field AND near the other team's treasure bin. As soon as they step into the other team's area, they can be caught. A person who is caught must do a drill to return to the game. If caught coming back with treasure, the person must put it back where he/she picked it up, do the drill and return to their area. Play for 5 to 10 minutes, then repeat.

A good exercise for working on speed, strategy and speed-endurance (if done in a large field).
EVALUATION: $\downarrow$ (Amount of treasure) $\vee$ Participation $\vee$ Technique $\checkmark$ Perceived exertion $\checkmark$ Heart rate

Source: Triathlon Canada, 2012

## ACTIVITY 36

## MOUNTAINS AND VALLEYS

OBJECTIVES: Working on different fundamental skills. Developing team and competitive spirit.

## MATERIAL: $40 \leq$ (or tennis balls cut in 2 ) and $1 \circlearrowright$

Spread 40 flat cones (or half tennis balls) over a $20 \mathrm{~m} \times 20 \mathrm{~m}$ space. Place 20 cones upright (mountains) and 20 upside down (valleys). Form 2 teams (mountains and valleys). The MOUNTAINS team must turn the cones into mountains (right side up). The VALLEY team must turn the cones into valleys (upside down). Play for 1 minute, then change teams.

Fast and fun game, targeting agility. Good at the end of a warm-up or as a break from technical instruction.

## VARIATIONS:

- Enlarge the play area to run more.
- Make the play area smaller to work on agility.


EVALUATION: $\checkmark$ Participation $\vee$ Technique $\checkmark$ Perceived exertion $\checkmark$ Heart rate

Source: Triathlon Canada, 2012

## ACTIVITY 37

## THE TAG

OBJECTIVES: Working on different fundamental skills. Developing team and competitive spirit.

## MATERIAL: $1 \circlearrowright$

Create a play area and designate the chasers.

- CATS. All players must try to tag each other! When a player is tagged, he/she have to do a drill (for example, 5 push-ups, 3 burpees) to return to the game. If 2 cats touch each other at the same time, they have to do a "ROCK-PAPER-SCISSORS" to break the tie. This should be done for a MAXIMUM of 2 min (very intense).
- THE WATER CAT. One cat. When 1 player is tagged, he/she has to stop and put out 1 arm (or, for example, do the plank). To be released, someone must pull the cat out of the water (lower the arm). Change cats every 30 seconds.
- CAT AND MOUSE. Divide the group into teams of four or more, holding hands in a circle. Designate 1 cat and 1 mouse outside the circle. The cat wants to catch the mouse. Change the cat and mouse every minute.
- THE VIRUS. Name 1 virus. When a player is tagged, he becomes a virus. Continue until there is only one uninfected player left. Separate viruses (large field) or linked by the arm (small field).
- CAT HOPPING IN PAIRS. In pairs, hold onto each other by the arm and move by hopping on 1 foot (2 feet per team). Play according to THE WATER CAT or THE VIRUS rules.

EVALUATION: $\checkmark$ Participation $\checkmark$ Technique $\vee$ Perceived exertion $\checkmark$ Heart rate
Source: Triathlon Canada, 2012

## ACTIVITY 38

## THE RARAJIPARI

OBJECTIVES: Working on different fundamental skills. Developing team and competitive spirit.

## MATERIAL: 1 ball that's not too bouncy (or balloon) per team and $1 \varnothing$

Form teams of 2 to 6 athletes and give each team 1 ball. Set up a course to run on different surfaces (for example, grass, sidewalk and hills). Here, simply kick the ball (or kick and roll for more variety) and let the rest of the group chase it. Alternate kickers. Run a specific distance (for example, 3 laps) or choose a time. (for example, as many laps as possible in 5 min ).

## VARIATIONS:

- Throw, roll or hit the ball with 1 stick (or another object) instead of kicking the ball with the foot.
- Use 1 heavier ball (light medicine ball).
- Make only backward passes (like in rugby) to force a slower run more adapted to the warm-up. The person with the ball must, in turn, run to the front of the group and pass the ball back.

> Rarajipari is played by the Tarahumara (indigenous Mexican people). Traditionally, a hard rubber or wooden ball is hit with the feet, then with sticks for hundreds of miles.

EVALUATION: $\checkmark$ Participation $\checkmark$ Technique $\checkmark$ Time $\checkmark$ Perceived exertion $\checkmark$ Heart rate
Source: Triathlon Canada, 2012

## ACTIVITY 39

## THE TOWER

## OBJECTIVES: Working on different fundamental skills. Developing team and competitive spirit.

MATERIAL: 100 Lego blocks (or 100 marshmallows and 100 toothpicks) and $1 \oint$
Create a cross-country course of 150 to 300 m (depending on the level of the group). Form teams of 2 to 5 athletes and give each team a 50 cm square building area (or 1 mat ). Earn coins for each completed lap, then build the tallest tower. Determine a time for the race and the number of pieces earned for each lap. Run alone or in groups. After the race, allow 5 to 10 minutes to build a windproof tower (the coach's breath).

It's useful to introduce the fundamental concept of training, plus the importance of the body, skills and fun.

## VARIATIONS:

- Invent different ways to earn the coins.
- Build a theme-based tower (such as an animal or sport).
- Vary the method of movement and the coin equivalents for each turn (for example, 1 turn on your heels $=4$ coins. 1 backward turn $=2$ coins. 20 jumping jacks $=1$ coin. 3 long jumps $=1$ coin).

EVALUATION: $\vee$ (Number of coins) $\checkmark$ (Strength of the structure) $\checkmark$ Participation $\vee$ Technique $\checkmark$ Time $\checkmark$ Perceived exertion $\checkmark$ Heart rate

Source: Triathlon Canada, 2012

## ACTIVITY 40

## RUNNING WORKSHOPS

## WORKSHOP 40.1

OBJECTIVES: Working on muscular and cardiovascular endurance and becoming familiar with your running distance.

## MATERIAL: 1

Create a track with suitable distances. Run the distance as quickly as possible. Practice a number of times throughout the session to see any improvement in the athletes.

| Ages 4-5 | Ages 6-7 | Ages 8-9 | Ages 10-11 | Ages 12-13 | Ages 14-15 |
| :--- | :--- | :--- | :--- | :--- | :--- |



EVALUATION: $\checkmark$ Participation $\vee$ Time $\checkmark$ Technique $\vee$ Perceived exertion $\checkmark$ Heart rate

## WORKSHOP 40.2

OBJECTIVE: Working on muscular and cardiovascular endurance (U13 and U15).
MATERIAL: 1
Create a track with the right distances. Run 1500 m as fast as possible. Aim for $6 \mathbf{~ m i n}$ and 15 sec or less for boys and 6 min and 30 sec or less for girls.

EVALUATION: $\checkmark$ Participation $\vee$ Time $\checkmark$ Technique $\checkmark$ Perceived exertion $\checkmark$ Heart rate

## WORKSHOP 40.3

OBJECTIVE: Working on running technique.
MATERIAL: None
Create a play area and select educational materials for the race. Do some warm-ups, ballistic stretching and activation drills. Use skip A, B, C or D (bilateral and unilateral) ranges to practice coordination and upper body movement. Practice foot placement and stride technique, in addition to rhythm and breathing.

For examples of ranges, see the video, Clinique du coureur : Les Gammes ABCD:
https://www.youtube.com/watch?v=|Xbhpru-V6|
EVALUATION: $\checkmark$ Participation $\checkmark$ Technique


## APPENDIX 4: HOW TO RUN BETTER

Head
Shoulders

Arms
Let the rhythm of the arms dictate the one of the legs.
! Common mistake: Twisting the torso and making the arms cross the central line of the body. Solution? Push the shoulders backward.
! Common mistake: Running in a sitting position. Solution? Raise the knees higher.


Legs
Lift your knees and heels.

Low and relaxed.


## Feet

Make the foot movement fluid almost like "digging the ground under the body". Make a lot of steps. Put the foot under the hips without making noise.
! Common mistake: Hitting the ground with the heel (braking position). Solution? Run by lengthening the posture.

## SECTION 4: TRANSITIONS

The purpose of this section is to provide an introduction to effective triathlon transitions for young boys and girls and their trainers.

In a triathlon, transitions are the pivotal moments between the main activities:
$\rightarrow$ Between swimming and cycling
$\rightarrow$ Between cycling and running
Initially, encourage young people to bike to school and run errands with their families as often as possible to become comfortable with cycling by performing basic manoeuvres (such as straddling, pedaling, braking and dismounting).
No pool? Use water toys, garden hoses or tubs filled with water to get them wet during an obstacle course.

## EOUIPMENT

Use the appropriate triathlon equipment for each transition. For more details, consult the Triathlon Québec website: http://www.triathlonquebec.org/officiels-et-organisateurs/reglements/

## SAFETY

For safety reasons, make sure shoes are laced up, kickstands are up, participants pass on the left and the distance between each participant remains 1 bike.

| RECOMMENDED RATIOS FOR SUPERVISING |  |
| :---: | :---: |
| TRANSITION ACTIVITIES |  |
| Age $\mathbf{7}$ or younger | $1: 10$ |
| Ages $8-11$ | $1: 12$ |
| Ages $12-15$ | $1: 12$ |

## RECIPE FOR SUCCESS



Set up a safe course (see SAFETY page).


Plan to have enough equipment for everyone
( 1 bike per 2 athletes).


Learn the rules (see the BASIC RULES FOR SUMMER YOUTH EVENTS section).


Spend less time explaining everything and more time having fun.

## RECOMMENDED ACTIVITIES

## TRANSITION ACTIVITIES

For beginners, learn and practice the steps of an effective transition, such as putting on and taking off your helmet, putting on and taking off your shoes, walking and running with your bike, embarking and disembarking from your bike according to the embarking and disembarking lines. For advanced cyclists, practice the same steps, but in a timed manner.

## TITLE

41 THE HELMET RACE
42 THE EQUIPMENT RACE
43 THE MOVEMENT
44 THE HIDDEN TRANSITIONS
45 THE CREATIVE OBSTACLES
46 THE HELMET GAME
47 THE SIGNAL
48 A CRAZY GAME!

TARGETED SKILL
T/S
T/S
T
T/S
T/S
T/S
T/S
T/S

## SEQUENCING ACTIVITIES

Start with $50 \%$ of the school triathlon distance according to the athlete's age group and do a little more each week until reaching the official distance.

TITLE
49 THE DUATHLON
50 A ONE-QUARTER TRIATHLON

TARGETED SKILL T T/S P
T

T/S

P

## TRANSITION ACTIVITIES

## ACTIVITY 41

## THE HELMET RACE

OBJECTIVES: Putting on and taking off your helmet properly.
MATERIAL: 1 per athlete, 10 and $1 \circlearrowleft$
Set up a running lap and place helmets in the middle. Jog around the lap, then, when the whistle blows, perform the required action (for example, 2 crawl steps) and resume running. At $\mathbf{2}$ whistles, go to the helmets, put on your helmet and fasten it. Continue the race with the helmet on your head. At $\mathbf{2}$ whistles, run to the middle of the field and remove your helmet $I N$ the space.

Do not remove your helmet while walking to the designated area!

## VARIATION:

- Do the exercise with other accessories (for example, shoes and running belt).

EVALUATION: $\checkmark$ Participation $\checkmark$ Technique $\checkmark$ Time $\checkmark$ Perceived exertion $\checkmark$ Heart rate

## ACTIVITY 42

## THE EQUIPMENT RACE

OBJECTIVE: Putting on and taking off your equipment properly.
MATERIAL: 1 pair of $1 \frac{\mathrm{H}}{\mathrm{H}}$ and 1 per athlete and $1 \varnothing$
Set up relay races on the playing field to practice the transitions in APPENDIX 5: TIMELINE. Practice putting on and taking off your $\qquad$ and

EVALUATION: $\checkmark$ Participation $\checkmark$ Technique $\checkmark$ Time $\checkmark$ Perceived exertion $\checkmark$ Heart rate

## THE MOVEMENT

OBJECTIVE: Moving beside your bike, holding it by the saddle.
MATERIAL: 1 and 1 per athlete, many $\triangleq$, many obstacles and $1 \circlearrowleft$
Prepare an obstacle course in the play area. Exercise without touching the equipment on the ground. Use Cycling Canada's Cyclocross or the 2017 Crossfit Games as inspiration.
(1) http://www.cyclismecanada.ca/cyclo-cross/a-propos/
(1) https://www.youtube.com/watch?v= QAT34sZvLGU

EVALUATION: $\checkmark$ Participation $\vee$ Technique $\vee$ Time $\checkmark$ Perceived exertion $\vee$ Heart rate

## ACTIVITY 44

## THE HIDDEN TRANSITIONS

OBJECTIVE: Adapting to transitions after swimming (when wet).
MATERIAL: 1 pair of
and $11 / 2,1$ pair of and 1 per pair, many $\leq$ and $1 \emptyset$
Create a play area and form pairs. In pairs, jump into the pool (or spray each other with a hose). Then, 1 athlete runs 50 m barefoot in a bathing suit. During the relay, the partner puts on his/her socks, a jersey and water boots, and runs 50 m . At the relay, the 2 partners exchange all the pieces of clothing, then the next 1 puts on a hat to run 50 m . At the relay, he removes the hat, sprints the last 50 m and finishes by removing the socks and water boots.

EVALUATION: $\checkmark$ Participation $\checkmark$ Technique $\checkmark$ Time $\checkmark$ Perceived exertion $\checkmark$ Heart rate

## ACTIVITY 45

## THE CREATIVE OBSTACLES

OBJECTIVE: Adapting to obstacles and transitions.
MATERIAL: 1 and 1 per pair, many $\otimes$, many $\bigcirc$, many and $\odot$
Create a play area and form pairs. Make equipment available and assign one area of the space to each team. As a team, create an obstacle course with transitions (changing equipment, getting on and off the bike and running with the bike), then take turns trying it out while the other team watches.

EVALUATION: $\checkmark$ Participation $\vee$ Technique $\checkmark$ Time $\vee$ Perceived exertion $\vee$ Heart rate

OBJECTIVES: Adapting to transitions. Improving coordination and reaction time.

## MATERIAL: 1 per athlete

Create a play area. Stand in a circle and each athlete places their helmet on the ground (gently) in front of their feet. At the signal, perform the predetermined steps as quickly as possible in the correct order (for example, bend down, pick up helmet, put on helmet, fasten helmet and touch the ground, stand up, remove helmet, put it back on the ground, stand up, touch head, bend down and put it back on). Raise your arms to say you are done.

## VARIATIONS:

- Place your helmet 15 m from the starting point. At the signal, run to your helmet, put it on and return to the finish line.
- Stand with your back to the helmets, lie on your stomach or turn around 5 times before going to get your helmet.
- Mix helmets to slow down the return to the starting point (you have to find your own helmet).
- Do the activity as a group following the song "Head, Shoulders, Knees, Toes" (ages 4 to 7).

EVALUATION: $\checkmark$ Participation $\vee$ Technique $\vee$ Time $\checkmark$ Perceived exertion
Source: Triathlon Canada, 2012

## ACTIVITY 47

## THE SIGNAL

OBJECTIVE: Adapting to transitions. Improving coordination and reaction time.

## MATERIAL: 1 per athlete and

Create a play area. Place helmets in a circle. Start walking or running around the circle. All athletes move in the same direction, without passing each other, going through the circle, turning around or running backwards. When the coach shouts "PUT ON YOUR HELMETS," everyone continues to turn in the SAME direction toward his or her helmet, putting it on as quickly as possible, then cheering on the other athletes.

EVALUATION: $\checkmark$ Participation $\vee$ Technique $\checkmark$ Time $\vee$ Perceived exertion $\vee$ Heart rate
Source: Triathlon Canada, 2012

## THE CRAZY GAME

OBJECTIVES: Adapting to transitions and the speed of execution. Improving coordination.
MATERIAL: 1,1 pair of and 1 running belt (or 1 jacket) per athlete, many and $1 \circlearrowleft$
Arrange the equipment in 4 squares marked by cones: shoes in the first square, running belt in the second, helmet in the third one and leave 1 empty. Start at the empty square. At the signal, run to the second square to put on your helmet, the third square to put on your belt, then the fourth square to put on your shoes. Back in the first square, remove the equipment in reverse order (shoes, belt and helmet).

## VARIATIONS:

- When finished, touch the empty square, change direction and start again (looking ahead)!
- Place your bike in the $4^{\text {th }}$ square. Ride your bike to the $1^{\text {st }}$ square, put it down and continue (remove shoes, belt, helmet and cheer on others at the finish line).

Put your bike down, chain it up and make sure the front wheel is facing the right square.

EVALUATION: $\checkmark$ Participation $\vee$ Technique $\vee$ Time $\vee$ Perceived exertion $\checkmark$ Heart rate
Source: Triathlon Canada, 2012

## SEQUENCING ACTIVITIES

## ACTIVITÉ 49

## THE DUATHLON

## $T \quad T / S \quad P \quad \Psi$

OBJECTIVE: Sequencing the events of a duathlon.
MATERIAL: 1 and 1 per pair, $1 \circlearrowleft$, many $\triangleq$ and bracelets (or wooden rods)
Form pairs. Create a course and adjust the distances, so that the running time is roughly equal to the biking time (about 250 m on the bike for 100 m of running). Add obstacles to the race, if you want. In pairs, while one student is running the race lap, the other is cycling. When each student is finished, switch bikes in the transition area in the middle and do the other part of the course. For each lap completed on the bike or run, take 1 bracelet and collect as many as possible!


## VARIATION:

- Modify the distance and obstacles.

EVALUATION: $\checkmark$ Participation $\checkmark$ Technique $\vee$ Time $\vee$ Perceived exertion $\checkmark$ Heart rate

THE ONE-QUARTER TRIATHLON
OBJECTIVE: Sequencing the events of a triathlon.

## MATERIAL: 1 and 1 per pair and many $\leqslant$

Create a play area. Set up a 100 m running lap and a 250 m cycling lap. Replace swimming with jumping jacks (or crab walking) in the middle of the race circuit. Form pairs. As a pair, take turns completing the course. The waiting partner keeps track of the times.

1: SWIMMING. Do 10 m of crab walking (cross arms but not legs) and move to the transition area.
2: TRANSITION 1. Put on shoes, bib and helmet. Walk beside the bike, then get on it.
3: CYCLING. Ride your bike for $\mathbf{1 . 2 5} \mathbf{~ k m}$ (6 laps).
4: TRANSITION 2. Get off the bike, then put it on the ground. Remove and drop helmet. Move to the race area.

5: RUNNING. 500 m (5 laps).


## VARIATION:

- Modify the distance and obstacles.

EVALUATION: $\checkmark$ Participation $\checkmark$ Technique $\checkmark$ Time $\checkmark$ Perceived exertion $\checkmark$ Heart rate
APPENDIX 5: TIMELINE
Whether it is a duathlon or a triathlon, there are 5 stages. The athlete must follow the predetermined order and comply with the associated safety measures.


## BIBLIOGRAPHY

## BOOKS AND MAGAZINES

- FÉDÉRATION FRANÇAISE DE TRIATHLON (2014) École Française de triathlon. (May 13, 2019).
- TRIATHLON CANADA (2012) Triathlon, Community Youth Coach Workshop, National Coaching Certification Program. 236 pages. (May 13, 2019).


## DIGITAL DOCUMENTS

- CSDM et Vélo Québec, Certificat cycliste averti, Situation d'apprentissage et d'évaluation, Volet 2, Pratique en milieu fermé.
http://cybersavoir.csdm.qc.ca/ephyssante/files/2012/08/Volet-2-SAE_20140425.pdf
- CSDM, L'entrainement par intervalles
http://cybersavoir.csdm.qc.ca/ephyssante/files/2013/12/Annexe_7.pdf
- CYCLING CANADA (2012) What is Cyclo-cross? [online] https://www.cyclingcanada.ca/national-team/cyclo-cross/ (June 3, 2019).
- LES ZÉCLAIRS (2019) Circuit d'habiletés. Club de triathlon de Nicolet. [online] https://www.leszeclairs.com/coupe-jeunesse (June 3, 2019).
- LE VÉLO VERT INC. Boutique de vélos - Des vélos neufs et usagés. [online] http://www.levelovert.com (June 3, 2019).
- ONTARIO MINISTRY OF TRANSPORTATION. Young Biker's Guide. [online] http://www.mto.gov.on.ca/safety/pdfs/young-cyclist-guide.pdf (May 13, 2019).
- SPORT FOR LIFE (2019). Long-Term Development in Sport and Physical Activity 3.0. [online] https://sportforlife.ca/portfolio-view/long-term-development-in-sport-and-physical-activity-3-0/ (Febuary 9, 2022).
- SOCIÉTÉ DE L'ASSURANCE AUTOMOBILE DU QUÉBEC. En vélo : Une tête, un casque. [online] https://saaq.gouv.qc.ca/securite-routiere/moyens-deplacement/velo/une-tete-un-casque/ (May 13, 2019).
- SOS VÉLO (2019). L'éco-vélo. [En ligne] http://www.sosvelo.ca/ (JUNE 3, 2019).
- TRIATHLON ONTARIO. Triathlon Ontario Drafting Cerification Manual. [online] https://bit.ly/3s2qof9 (May 22, 2019).
- TRIATHLON QUÉBEC (2017) Guide organisation triathlon scolaire 2017. [online] https://www.triathlonquebec.org/series-et-evenements/programme-triathlon-scolaire/ (Consulté le 3 juin 2019).
- TRIATHLON QUÉBEC (année) Historique du triathlon. [online] https://www.triathlonquebec.org/triathlon-quebec/historique-du-triathlon/ (June 3, 2019).
- TRIATHLON QUÉBEC (2019) Règles de compétition. [online] https://www.triathlonquebec.org/officiels-et-organisateurs/reglements/ (June 3, 2019).
- VÉLO QUÉBEC (2018) On the road,our safety is linked together. [online]
https://partagelaroute.velo.qc.ca/en (Febuary 9, 2022).


## VIDEO RESOURCES

- LA CORDÉE PLEIN AIR (2017). Vélo : Remplacer une chambre à air. [online]
https://www.youtube.com/watch?v=ABgEB4kbOxw (June 3, 2019).
- ROGUE FITNESS (2017) Cyclocross - The 2017 Crossfit Games. [online] https://www.youtube.com/watch?v=QAT34sZvLGU (June 3, 2019).
- SWIM SMOOTH (2009) Animated Freestyle Swimming Visualisation - Mr Smooth. [online] https://www.youtube.com/watch?v=lyR7JYIIk9U (June 3, 2019).
- THE RUNNING CLINIC (2017) Clinique du coureur : Les Gammes ABCD. [online] https://www.youtube.com/watch?v=|Xbhpru-V6I (June 3, 2019).
- TRIATHLON QUÉBEC (2015) Les Triathlons Scolaires au Québec. [online] https://www.youtube.com/watch?v=d8EAo67wm8k (June 3, 2019).
- WORLD TRIATHLON (2018) 2018 Hamburg Mixed Relay Highlights. [online] https://www.youtube.com/watch?v=oAwzJnX44Yg (June 3, 2019).
- WORLD TRIATHLON (2014) The best triathlon motivation video of the year. [online] https://www.youtube.com/watch?v=OpiDGvgQ7bs (June 3, 2019).
- WORLD TRIATHLON (2018) 2018 WTS Montreal Men Highlights. [online] https://www.youtube.com/watch?v=uiyRqmUyxb8\&t=190s (June 3, 2019).


[^0]:    For more details on manoeuvres, please refer to the Triathlon Ontario Drafting Certification Manual: https://bit.ly/3AqS54e

    EVALUATION: $\checkmark$ Participation $\checkmark$ Time $\checkmark$ Technique $\checkmark$ Perceived exertion $\checkmark$ Heart rate

    ## WORKSHOP 27.2

    OBJECTIVE: Changing an inner tube (a flat).
    MATERIAL: 1 inner tube device and 1 O
    Demonstrate how to change an inner tube with this French video produced by La Cordée (2012), entitled Changer la chambre à tire: https://www.youtube.com/watch?v=ABgEB4kbOxw

    EVALUATION: $\sqrt{ }$ Participation $\vee$ Time $\checkmark$ Technique

