APPROPRIATE ATHLETE DEVELOPMENT AND ATHLETE DEVELOPMENT MATRIX

SWIMMING CANADA

ACKNOWLEDGEMENTS

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APPROPRIATE ATHLETE DEVELOPMENT

Swimming Canada first published its Long-Term Athlete Development Strategy (LTADS) in 2008. At that time, key deliverables and objectives were created, along with key activities for each stage of athlete development. Four strategies were identified to help Swimming Canada achieve those key objectives. Those strategies included:

- LTADS – Competition Review;
- LTADS – Stage Skills Checklists;
- LTADS – Implications for Clubs and Parents; and
- LTADS – NCCP Integration.

Over the past 10 years, many of these strategies have been implemented. In 2016, the Competition Improvement Plan – National Events was introduced. This improvement plan resulted in major changes to the Swimming Canada national events program, which included the addition of Peak Performance Windows, a change in placement of national events, and alignment of appropriate ages for competition. The review also included the Open Water and Para Swimming programs.

In the Spring of 2018, the second phase of the Competition Review was completed, which included recommendations for Provincial and Developmental level competitions. The phase 2 review was created using the Athlete Development Matrix (ADM) detailed in this document within the Technical/Tactical/Strategic Pillar.

Following the introduction of the 2008 LTADS, NCCP coaching education was updated and continues to be updated as the work on the Athlete Development Matrix evolves. Appropriate Athlete Development continues to be a strategic priority of Swimming Canada. While this work will never really end, the creation of the Athlete Development Matrix will assist coaches, swimmers, parents, clubs, Integrated Support Team (IST) members, officials, Provincial Sport Organizations, and local communities to develop and deliver stage-appropriate programs.

Upon the delivery of Swimming Canada's Athlete Development Matrix, additional key deliverables will be developed to further support Appropriate Athlete Development (AAD) across all stages. This will include the development of resources and materials that will impact:

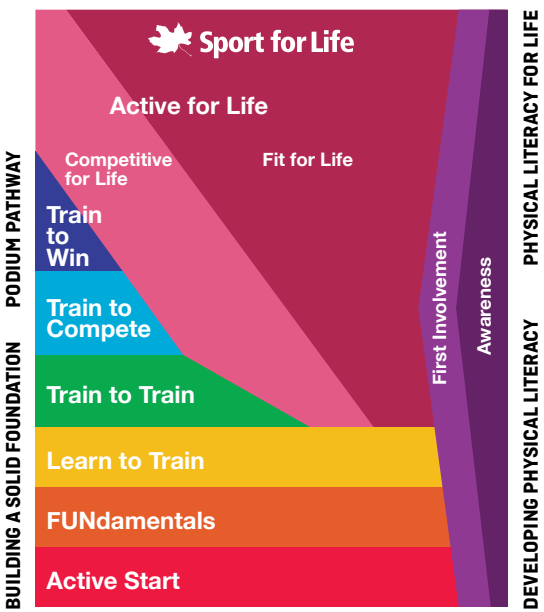
- coach education and development
- Integrated Support Team (IST) education and development
- parent engagement
- athlete responsibility
- athlete selection and progression
- club management
- communication strategies
- governance and leadership

LONG-TERM DEVELOPMENT IN SPORT AND PHYSICAL ACTIVITY

INTRODUCTION

In order to understand the athlete development matrix, one must have an understanding of the Long-Term Development in Sport and Physical Activity Model, formerly referred to as Long-Term Athlete Development Model (LTAD). In the current version of the model, Higgs, Way, and Harber (2019) state, "Long-Term Development in Sport and Physical Activity is a framework for the development of every child, youth, and adult to enable optimal participation in sport and physical activity. It takes into account growth, maturation and development, trainability, and sport system alignment" (p. 7).

LONG-TERM DEVELOPMENT IN SPORT AND PHYSICAL ACTIVITY



FIRST INVOLVEMENT & AWARENESS

"First Involvement and Awareness are integral components of everyone's initial experiences in sport and physical activity. Physical literacy, while vital during the early stages, is not confined to the early stages—it can and should continue to be developed throughout the life course. The Podium Pathway describes the sport-defined excellence stages of Long-Term Development in Sport and Physical Activity and specifically applies to athletes on a trajectory toward podium results at the highest level of their sport. The updated rectangle reflects these changes." (Long-Term Development in Sport and Physical Activity 3.0, Sport for Life, January 2019; page 13)

ACTIVE START

Swimming is unique in that it is the only sport that does not have direct responsibility for first involvement and awareness at the Active Start phase of development.

Compared to other sports found in the Canadian sport system, Swimming Canada is the only Canadian sport that does not have direct responsibility for teaching the fundamentals of the sport to young children. Basic teaching is undertaken by organizations with a primary mandate of child safety, and learn to swim programs are mostly operated by Red Cross of the Royal Lifesaving Society. Swimming Canada has partnered with the Red Cross and Lifesaving Society in program design and development, but leaves delivery to them. Children identified as having swimming potential are frequently encouraged to join a swim club – often operating out of the same facility – in order to advance in their sport. Children learn to swim during the Active Start or FUNdamentals stages of athlete development and most often enter swim clubs at the upper end of FUNdamentals, around 8 or 9 years of age.

FUNDAMENTALS (FUN) AND LEARN TO TRAIN (L2T)

Most clubs across Canada offer programs that provide swimming to children covered by these 2 stages of Athlete Development. The FUNdamentals stage is an important introduction to the sport. This stage will introduce basic movement skills, agility, balance and coordination. The Learn to Train stage will provide increasingly challenging and progressive experiences.

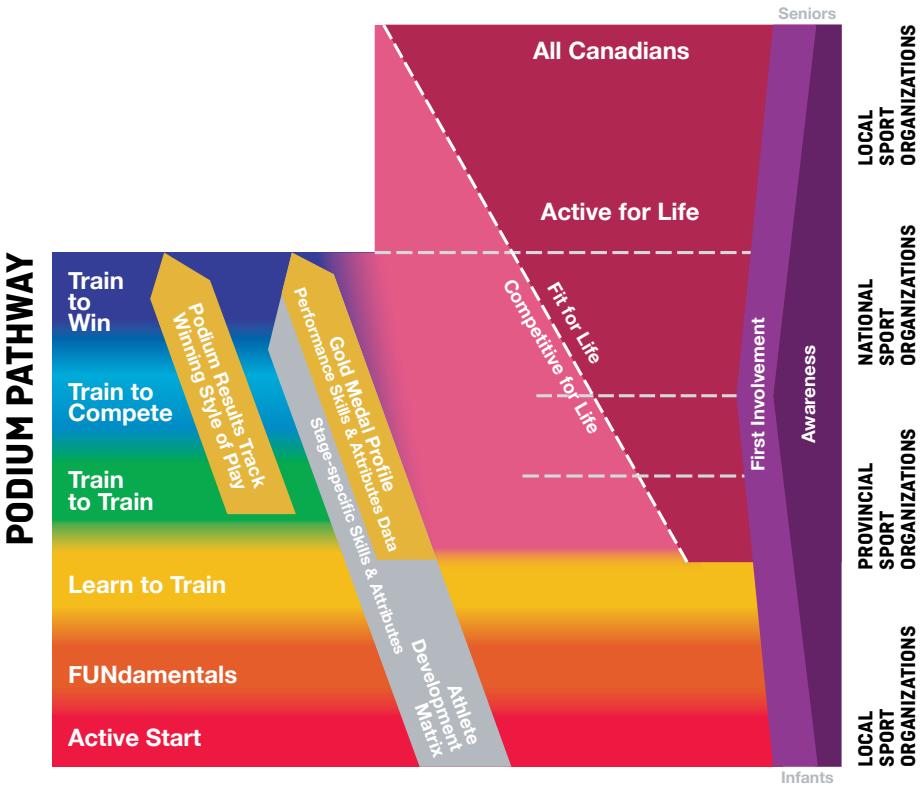
TRAIN TO TRAIN (T2T), TRAIN TO COMPETE (T2C), AND TRAIN TO WIN (T2W)

The work of the National Program in Swimming Canada is focused around these 3 main stages of athlete development. Particular attention is placed on the Train to Compete and the Train to Win stages of the process, which we refer to as the Podium Pathway.

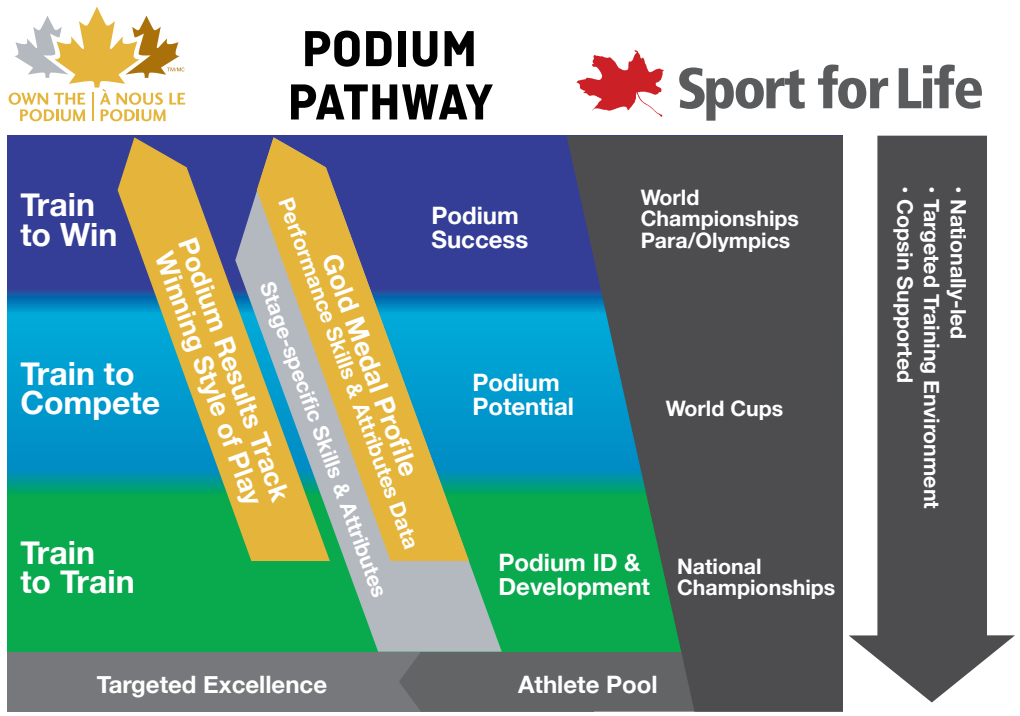
PODIUM PATHWAY

"The Podium Pathway is about developing high performance athletes capable of winning at the highest levels of international competition, and bringing home medals from Olympic Games, Paralympic Games or World Championships," (Way et al., 2019, p. 30).

LONG-TERM DEVELOPMENT IN SPORT AND PHYSICAL ACTIVITY FRAMEWORK



(Long-Term Development in Sport and Physical Activity 3.0, Sport for Life, January 2019; page 31)



(Long-Term Development in Sport and Physical Activity 3.0, Sport for Life, January 2019; page 31)

SWIMMING CANADA – WHAT IS HIGH PERFORMANCE?

For the Olympic Program, Swimming Canada defines High Performance as:

- "Top 8 World ranking with continual progression towards, and the achievement of, Olympic podium performances."

For the Paralympic Program, Swimming Canada defines High Performances as:

- "A dedicated training environment,
- professional coaching supported by science and medicine, in and out of the pool,
- full-time commitment to achieving life-time best performances when it matters (i.e. – International summer meet), and
- a Top 5 in the world trending to improvement"

Swimming Canada recognizes that the pursuit of High Performance is a continuum, and that the above definition is broader than simply Olympic and Paralympic medal performances. Therefore, High Performance is viewed based off of three tiers of criteria in priority order (applies to both pool based and open water performances):

1. Podium performance at the Olympic and Paralympic Games
2. Podium performance at the FINA World Championships and World Para-swimming (WPS) World Championships (long course)
3. Swimming in the Final (top 8) at either the Olympic Games or FINA World Championships (long course) or top 5 at the WPS World Championships & Paralympics.

In no particular order, athletes may be identified or targeted as having potential to achieve High Performance if:

- They have achieved published 'On Track Times' (podium pathway), and show significant evidence of these 'On Track Times'
- They demonstrate continued development of complimentary events that support their primary event focus,
- They have won a medal at either the FINA World Junior Championships and/or the Junior Pan Pacific Championships,
- They have finished Top 8 at the FINA World Junior Championships,
- Top 5 performance at WPS World Series event,
- They are a senior athlete who has made a Top 16 performance at the Olympic Games/FINA World Championships (50m) and continue to post performances that indicate improvement towards Top 8 in the world,
- They are athletes progressing from FINA World Junior Championships and/or the Junior Pan Pacific Championships top 8 toward top 16 in the world.

These criteria do not restrict athletes from achieving High Performance status through these more conventional routes. However, outside of achieving the aforementioned criteria, a significant performance (Top 8) at the Olympic Games or FINA World Championships (long course) or Top 5 at the Paralympics or equivalent would be required to be identified as such.

Athlete Support

Sport Canada Carding is viewed as a way to support the continued development of targeted Canadian swimmers, and in itself is just one more step along the continuum of performance excellence.

Training Season

As part of being identified as a High Performance swimmer, or targeted as having potential to achieve High Performance, there is an explicit requirement that the swimmer has a long course-focused training season; for most athletes, peaking only twice for the domestic trials meet and the targeted major summer meet. The swimmer would adhere to a 48+ week Yearly Training Plan, and most meets outside of the Spring Trials and Summer International meets, which are in-season and viewed as opportunities to rehearse long course racing strategies.

Daily Training Environment

With respect to facility use and training space, High Performance training groups that conform to the outlined definitions and terms should be prioritized. Consideration should be given to an extended training group around any High Performance swimmers, provided that the High Performance program can justify alignment with its submitted High Performance Plan. Once the needs of the High Performance program and any extended training groups have been satisfied, the facility should then carefully consider limited access to any unused space and the potential detrimental impact this could have on the High Performance group.

COMPETITIVE FOR LIFE

"Competitive for Life is the phase of Active for Life for those who compete within the formal structure of their sport. This could be U-14 or U-17 level in a house league, all the way to World Masters Competition. It differs from Fit for Life because competitive athletes are striving to improve and to win, and they train accordingly." (Long-Term Development in Sport and Physical Activity 3.0, Sport for Life, January 2019; page 34)

Many age group, varsity, and masters programs will have a large number of Competitive for Life swimmers. Competitive for Life swimmers are swimmers who are not by definition found within the Podium Pathway of Train to Compete or Train to Win but will often train alongside those swimmers and be striving for medal performances themselves provincially and nationally at a variety of competitions, which may include U SPORTS Swimming Championships and the Canadian Swimming Championships.

Competitive for Life swimmers competing in Age Group and Varsity programs will be working toward and achieving the skills and behaviours identified in the Train to Compete and Train to Win stages of the ADM.

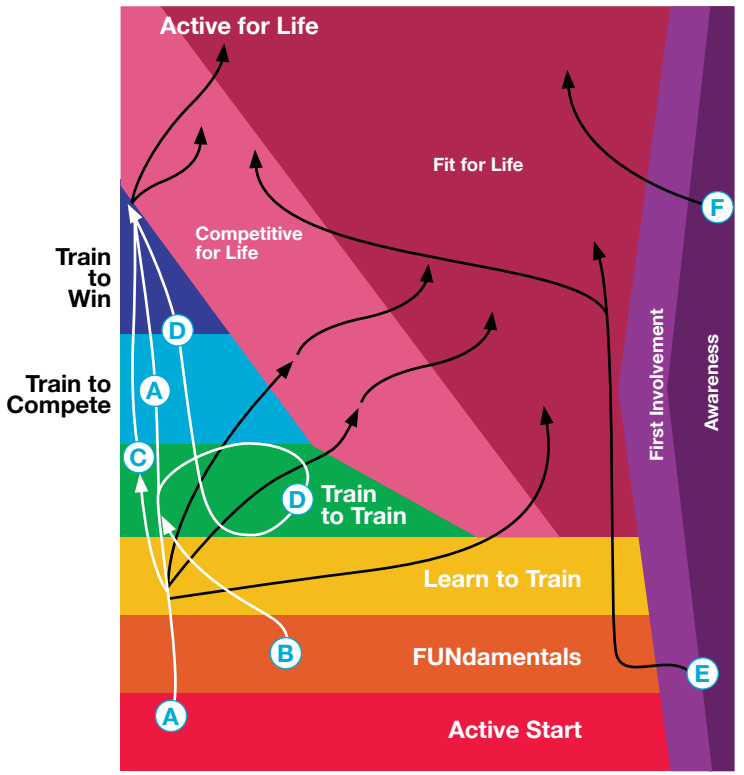
DEVELOPMENT IS NOT LINEAR

Every athlete is different and their rate and tempo of development is highly variable. As a result, the development of their physical, technical/tactical, mental and life skills will be impacted. Well-informed coaches will appreciate this variability and be able to create developmentally-appropriate experiences for their athletes to ensure everyone is afforded the opportunity to progress.

UNIQUE PATHWAYS

Individuals' journeys in sport and physical activity are unique and often vary greatly. While all begin with an awareness of an activity, which leads to being involved and learning the fundamentals, these individuals could take a variety of pathways depending on their characteristics and capabilities. Ideally, these pathways will lead the individual to achieving their potential, and then being active for life.

The "Top" can be varied from Olympic or World Championship Gold to World Masters Championships.



(Long-Term Development in Sport and Physical Activity 3.0, Sport for Life, January 2019; page 36)

MANY PATHWAYS TO ACHIEVE...

There are many pathways for participants to take to achieve their potential; their path is rarely straight.

Participant A might stay in one of their first sports from entry right through to World Championships.

Participant B starts in a different sport or begins their journey later, then during adolescence finds the sport they pursue through to the Paralympics or Olympics.

Participant C starts with A having early success in one sport, then focuses on another sport before returning to focus on their first love.

Participant D achieves a high level of success in one sport but then transfers to another sport, which results in having to go back through stages of development before succeeding in their new sport.

Participant E becomes involved in many sports, never pursuing or advancing into the Train to Train stage, but has quality experiences and is active for life.

Participant F becomes aware of opportunities later in life, then through a positive first involvement becomes active for life.

There are many pathways in sport and physical activity. It is important to recognize that everyone's journey is unique and should always be in quality environments to allow for individuals to achieve their potential and be able to be active for life.

Four things are important:

1. Participants are supported along their journey to find appropriate sport and physical activity in which they have the opportunity to achieve their potential.
2. There are multiple pathways for participants to achieve success, including changing focus then returning later to a sport.
3. Sports ensure that Long-Term Development pathways align from the early stages through to the Podium Pathway.
4. Regardless of the pathway, or at what stage they leave the competitive stream, all participants end up in Active for Life, either:
    - by being Competitive for Life, or
    - by taking part, to be Fit for Life, and
    - have a good experience so they want to "give back" as Sport and Physical Activity Leaders.

Balanced development in sport and physical activity means paying attention to more than just skills and physical capacities. Development across a range of domains including physical, technical, tactical, psychological, and life skills must be addressed for individuals' personal advancement throughout all stages of the Long-Term Development framework.

SWIMMING CANADA ATHLETE DEVELOPMENT MATRIX (ADM)

What is the Athlete Development Matrix (ADM)?

The ADM is a broad roadmap for the development of swimmers and describes the observations, actions, and words we want them to portray, demonstrate, and display across each stage of development.

"A **complete** ADM covers much more than just the sport's technical skills. The complete ADM describes in detail the optimal sequencing and timing of all learning and training activities required to ensure that each new skill or training stimulus is built on a solid foundation of previously acquired competencies, or previously developed physical capacity. It is a blueprint for the long-term development of the athlete **within** the sport – while recognizing that an athlete's development is almost always based on skills developed and training accumulated in a range of different sports, in physical education classes, and in a multitude of recreational and life experiences. In general, individuals should be encouraged to engage in a wider range of activities during the earlier years of their development." (The Athlete Development Matrix, Sport for Life Version 1.1 November 2016, page 3)

The ADM is not:

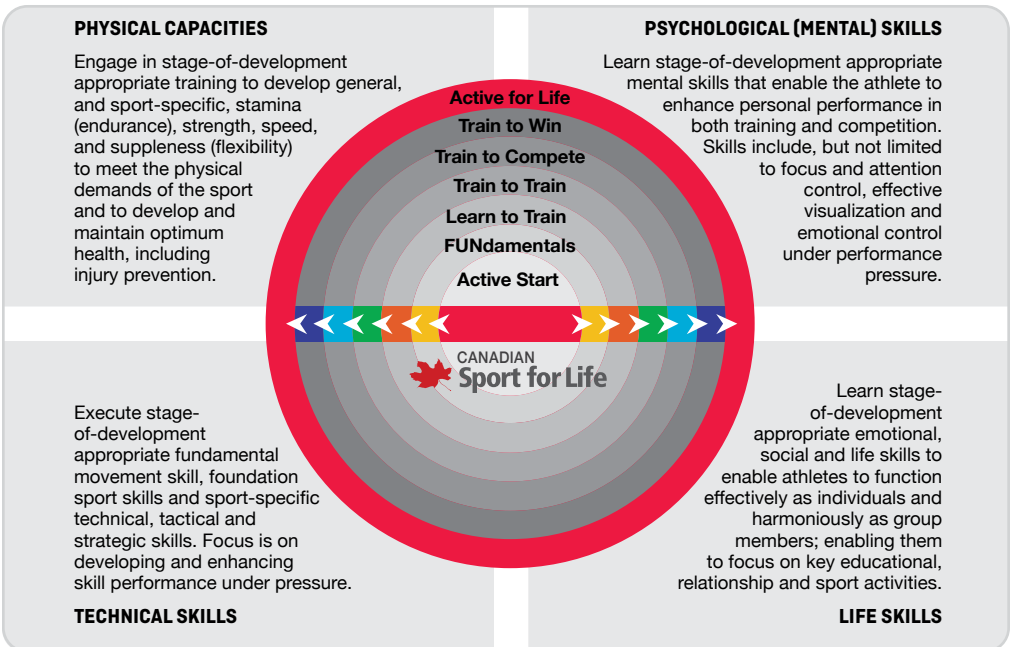
- a detailed prescription from which a training program should be built,
- a "how to" for coaches, yet it provides guidance for coaches to help them create environments, experiences, and developmentally-appropriate challenges for athletes to explore, test themselves, and progress in all areas of the ADM.
- a battery of tests to assess athlete development, but will ignite discussion to determine how best to determine athlete progression and how best to support athletes on their journey.

THE 4 PILLARS OF THE ATHLETE DEVELOPMENT MATRIX

Swimming Canada's ADM is comprised of 4 pillars:

- physical capacities,
- technical/tactical/strategic competencies,
- mental or psychological skills, and
- life skills (cognitive, social, and emotional learning skills).

The mental and life skills sections are written from the swimmer's perspective.



WORKING DEFINITION OF EACH PILLAR

There are 4 separate but interconnected components of the Athlete Development Matrix. The following has been copied from The Athlete Development Matrix, Sport for Life Version 1.1 November 2016, page 4.

Physical Development

The development of stamina, strength, speed, suppleness (flexibility) appropriate to the stage of development of the athlete, and undertaken when the body is best able to respond to the training stimulus. This also includes the development of ancillary skills, such as warm-up, cool-down, nutrition, hydration, rest, and recovery.

Technical/Tactical/Strategic Skills Development

The learning of basic human movements, fundamental movement skills, foundation sport skills, and the whole range of sport-specific skills required to reach the highest level of performance. These are sometimes called psycho-motor or just sport skills. This component also includes the tactics and strategy of sports in general, and eventually the tactics and strategy specific to the sport of choice and event or position in which the athlete specializes. In developing their sport-specific ADM, sports may elect to separate the sport technical skills from tactics and strategy.

Psychological (Mental) Skills Development

The development of sport psychology skills, appropriate to the stage of development of the athlete.

Life Skills Development

Development of the skills required for successful growth to become a confident, self-sufficient individual capable of effective, independent, and harmonious group action, in the pursuit of individual or team sport participation and performance.

SWIMMING CANADA HAS FURTHER EXPANDED THE DEFINITIONS ABOVE TO INCLUDE THE FOLLOWING ELEMENTS:

Physical Capacities Development

While nutrition, hydration, rest, and recovery exist in this component, Swimming Canada also includes those items in Life Skills Development.

Technical/Tactical Skills Development

Includes competition and training skills at each stage.

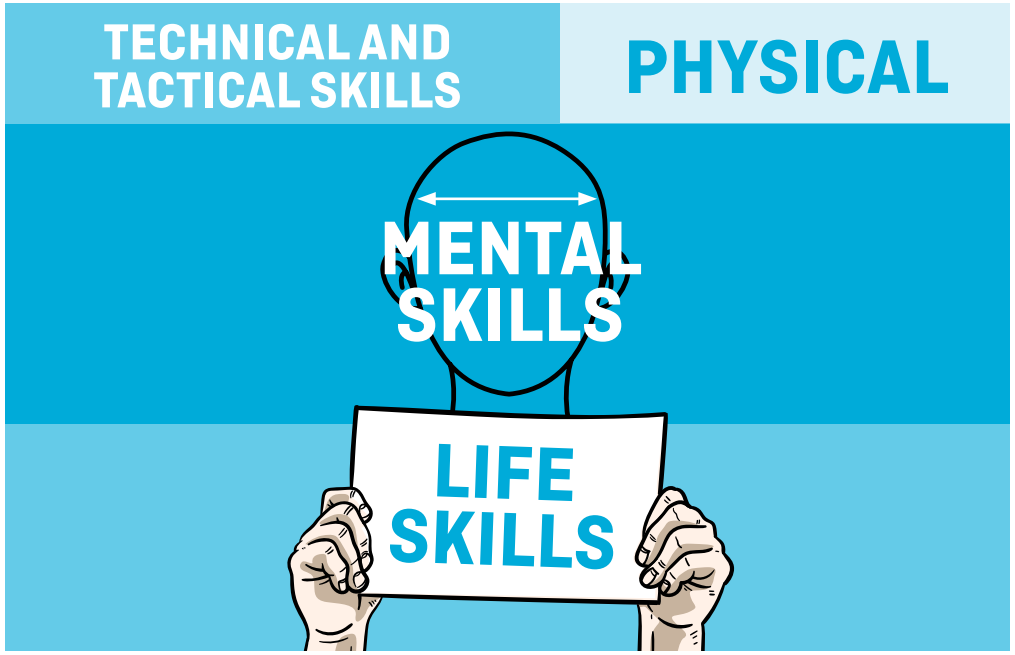
Mental Skills Development

Swimming Canada has identified the following key elements in the development of mental skills:

- positive attitude,
- motivation,
- goal setting,
- emotion identification and control,
- attention/focus, and
- reducing errors.

Life Skills Development

Social and Emotional Learning Skills (SEL) are highlighted in the development of Life Skills.



GENERAL CONSIDERATIONS WHEN REVIEWING THE ADM

1. ATHLETE DEVELOPMENT IS ROOTED IN HUMAN DEVELOPMENT

Athlete development is rooted in human development. Exceptional technical execution combined with extraordinary physical prowess is not enough. Success in any area of life (sport, academics, business, relationships, career) requires creativity, flexibility, self-control, and discipline. We are not born with these attributes – they begin their development shortly after birth and continue into adolescence and early adulthood. Strong development and support of Life Skills will set the stage for acquiring appropriate Mental Skills and allow for optimal Technical/Tactical/Strategic Skills and Physical Capabilities.

2. DEVELOPMENT IS NOT LINEAR

Every athlete is different and their rate and tempo of development is highly variable. As a result, the development of their physical, technical/tactical/strategic, mental, and life skills will be impacted. Well-informed coaches will appreciate this variability and be able to create developmentally-appropriate experiences for their athletes to ensure everyone is afforded the opportunity to progress.

3. ATHLETE GROWTH, DEVELOPMENT, AND MATURATION (GDM)

Understanding an athlete's growth, development, and maturation (GDM) will help coaches and parents provide developmentally-appropriate supports for safe, healthy, human development. Athletes may also benefit by better understanding themselves and the associated changes that occur during their GDM years.

4. THE INTEGRATED SUPPORT TEAM (IST) – WHAT IS IT? WHEN DOES IT START?

The IST begins with the young swimmer and their family. The family supports and provides for the young swimmer's needs to progress. IST is not likely well-formed in early stages, but the young swimmer learns that their progress is supported by different people with different skill sets (coaches, physiotherapists, sport psychologists, exercise physiologists, sport nutritionists, medical staff, others).

5. NUTRITION/HYDRATION CONSIDERATIONS

The energetic and metabolic demands of training, competition, and recovery vary widely for each athlete and therefore require adequate matching with suitable food choices and energy intake.

Athletes that adopt positive fuelling practices are likely to experience effective adaptations to training, positive performance gains, strong bone health, and suffer fewer illnesses or injuries.

When younger athletes (Active Start, FUNdamentals, Learn to Train) establish a positive and comfortable relationship with food, they are more likely to make wise choices to support their training, competition, and recovery schedules.

6. CONSIDERATIONS FOR FEMALE ATHLETES

While training design and delivery are largely the same for all athletes, female athletes experience unique injuries and conditions that may interrupt their training or competition, interfere with their recovery and, for some, become career-ending.

Training environments that; a) adopt musculoskeletal injury prevention programs, b) promote and recognize positive fuelling practices and c) cultivate a climate of acceptance and social connection will note fewer injuries, higher retention rates, and elevated athlete satisfaction during and after their sporting career.

7. ATHLETES WITH AN IMPAIRMENT

Athletes with impairments are, first and foremost, athletes. This means that in almost every way they have far more in common with their non-impaired peers than they have differences, and virtually everything that applies to swimmers in the Olympic program applies to those in the Paralympic program.

- Two distinctly different types of athletes with impairments compete in swimming. They are:
  - Athletes with congenital impairments
    - Born with an impairment
  - Athletes with acquired impairments
    - Impairment due to injury or illness that occurs after birth, most often that occurs after adolescence.

CONGENITAL IMPAIRMENT

By definition, a swimmer with a congenital impairment has had that impairment since birth, and as a consequence passes through the same developmental stages as able-bodied swimmers. Therefore, the same stage-of-development considerations apply.

The most important considerations are:

- Ensuring that athletes with impairments have developed fundamental movement skills, since heavy engagement in medical and educational appointments early in life can reduce the time for both play and the development of fundamental movement skills.
- The lower capacity for abstract thought in younger swimmers (both able-bodied and with an impairment) and the impact of this on learning stroke techniques.
- Utilizing windows of accelerated response to different types of training at different stages of development to maximize training effectiveness.

ACQUIRED IMPAIRMENT

There is general consensus that few high level competitive swimmers come from the ranks of those **who could not swim** prior to acquiring the impairment. Recent data confirms that the peak age-groups for the acquisition of injury are the 15-19 year olds and the 20-29 year olds.

For athletes who acquire an impairment, there are several differences from those with congenital impairments, including:

- A greater need to make those with acquired impairments AWARE of the opportunities for sport participation and competition that swimming can provide. (Individuals with congenital impairments are often involved in some form of hydro-therapy early in life and are more likely to be aware of competitive swimming because of time spent in the pool.)
- A need to become physically active again following acquisition of an impairment. Impairment is often followed by medical procedures and rehabilitation and there is a need for the individual to become active again using the reduced capacity of their body. Learning to control their new body, and becoming physically active again, is called **Re-learning (or post- rehabilitation) Active Start**.
- A need to develop new fundamental movement skills – using their now impaired body means fundamental movements on land, in the water (relearning to swim), in the air as far as possible, and on ice/snow. This stage is not an introduction to competitive swimming. This stage is called **Re-Learning (or post rehabilitation) FUNdamentals**, and is unlikely to be the responsibility of Swimming Canada Clubs.
- The next stage for the swimmer with an acquired impaired is **Re-Learn to Swim or post-rehabilitation Learn to Swim** – and here the focus is on developing swimming stroke technique, making adjustments for the impairment. This is the responsibility of swim clubs, and it is critical that the swimmer's **First Involvement** with the swim program/club be positive. In general, this means ensuring four things:
  - That there are no physical (architectural) barriers to the swimmer entering the facility, using (private) changing areas, and entering and leaving the pool.
  - There are no communication barriers that prevent the swimmer from comprehending instructions or asking questions.
  - There are no programming barriers. This means making the right instruction available at the right time, and ensuring that necessary support is in place for the swimmer to take part.
  - No attitudinal barriers. This means a positive welcome not just by the coach, but also by the facility/pool staff and by other swimmers. Any sense of not being welcomed can have a serious detrimental impact on a potential swimmer with an impairment.

Increased **Awareness** and positive **First Involvement** are critical for both swimmers with a congenital impairment and able-bodied swimmers.

8. ADM STAGE-BY-STAGE TABLES

The Physical Capacities and Technical/Tactical/Strategic tables are written from the perspective of how a coach may implement various skills and elements into a program, whereas the Mental and Life Skills table are written from the perspective of the swimmer and what they can work on to achieve across each skill and level.

ADM STAGE-BY-STAGE TABLES

For each component of the ADM (physical, technical/tactical, mental and life), the key contributing factors will be listed along with a stage-by-stage description of athlete attributes that can be assessed while providing information to support developmentally appropriate training and progression. A comprehensive spreadsheet for each component helps to outline the following:

- Identify the necessary stage-by-stage skills for athletes to achieve;
- Assist coaches in designing developmentally appropriate training environments and competition experiences;
- Recommendations for clubs to cultivate safe and effective environments for their swimming community.

Skills identified in red font are specific to Para Swimming athletes and skills identified in blue font are specific to Open Water swimming. All other skills may be applicable to all athletes regardless of program.

MENTAL AND LIFE SKILLS DEVELOPMENT

SPECIAL NOTE ABOUT MENTAL AND LIFE SKILLS

These components of the ADM have extraordinary influence on human development and are predictive of lifelong wellbeing. These go well beyond the influence on athlete development and performance in the pool. It is vital to deliberately shine a light on these components as they relate to the pool as well as at school, with their friends, family and others in their community.

EXECUTIVE FUNCTIONS

Executive functions are the foundation for short- and long-term athlete success and wellbeing. Executive Functions establish the grounding for the development of Life and Mental Skills and provide essential support for entire athlete development and performance.

CORE EXECUTIVE FUNCTIONS:

1. Working memory (ability to hold thoughts and information in the mind and use it).
2. Inhibitory control (ability to control or manage thoughts and impulses, resist distractions, temptations and unwanted habits).
3. Cognitive flexibility (ability to “switch gears” and adjust to changing situations, demands or priorities).

The Mental and Life Skills Development Tables are appropriate for all swimmers (Olympic Program, Paralympic Program and Open Water programs), with a few specific Para swimming specific skills.

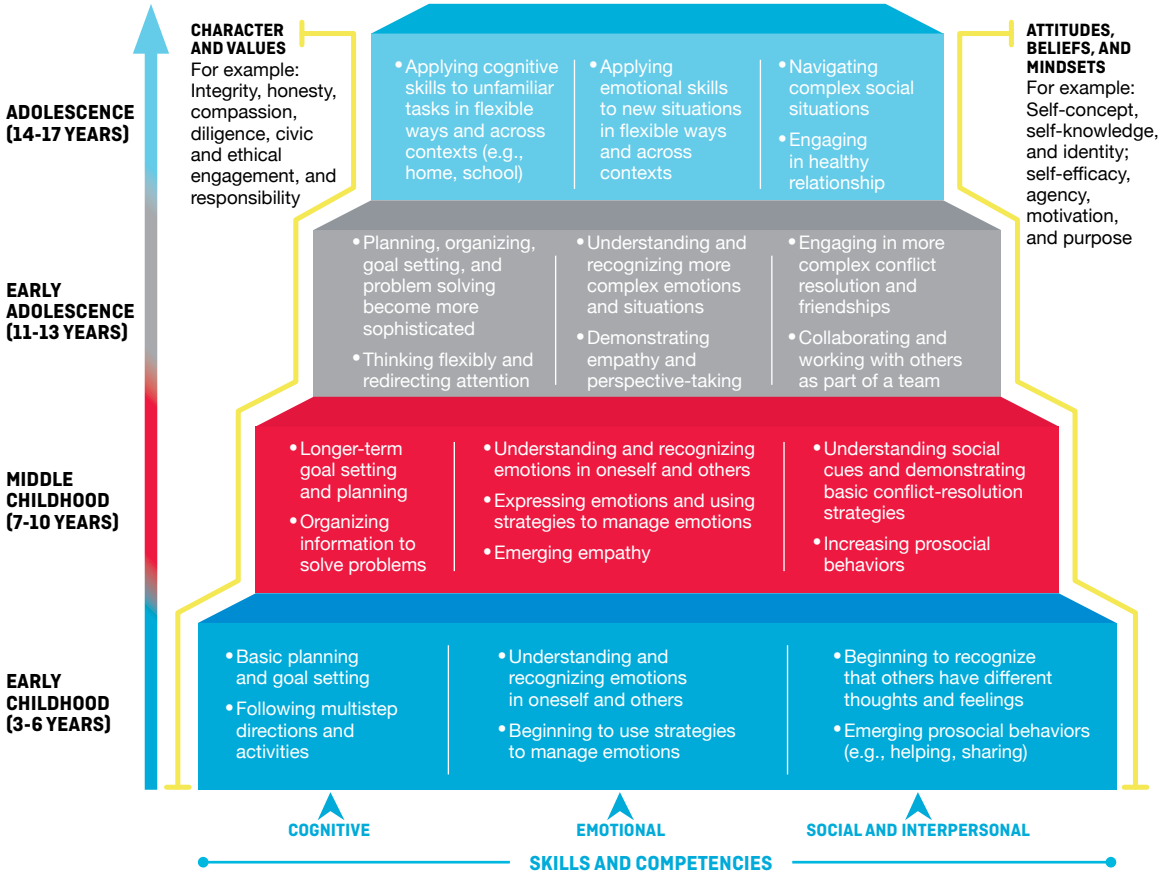
HARVARD CHILD DEVELOPMENT CENTRE (EXECUTIVE FUNCTIONS)
https://developingchild.harvard.edu/resources/what-is-executive-function-and-how-does-it-relate-to-child-development/?platform=hootsuite

SIRCUIT ARTICLE (7 MINUTE READ)
http://sircuit.ca/executive-functions-skills-through-sport/

VIDEO (WHAT AND WHY: EXECUTIVE FUNCTIONS; 2.5 MINUTES)
https://youtu.be/FZLXggsK6oA

VIDEO (HOW BRAINS ARE BUILT – THE CORE STORY OF BRAIN DEVELOPMENT; 4 MINUTES)
https://youtu.be/LmVWOe1ky8s

AN ILLUSTRATION OF THE DEVELOPMENTAL PROGRESSION OF SOCIAL, EMOTIONAL, AND COGNITIVE SKILLS AND COMPETENCIES



Note: This graphic was inspired by Turnaround for Children's Building Blocks for Learning.

(Jones (2019) National Commission on Social, Emotional, and Academic Development: A Research Agenda for the Next Generation, The Aspen Institute; page 19)

MENTAL SKILLS

LTAD STAGE	FUNDAMENTALS (FUN)	LEARN TO TRAIN (L2T)	TRAIN TO TRAIN (T2T)	TRAIN TO COMPETE (T2C)	TRAIN TO WIN (T2W)
AGE OR STAGE	FEMALE 5-8 MALE 6-9	FEMALE 8 – ONSET OF PUBERTY MALE 9 – ONSET OF PUBERTY	PERIOD OF PUBERTY FEMALE AND MALE	PODIUM PATHWAY COMPETITIVE FOR LIFE	PODIUM PATHWAY COMPETITIVE FOR LIFE
POSITIVE ATTITUDE – A state of mind that envisions and expects favorable results, a willingness to try doing new things, a mindset that helps you see and recognize opportunities, demonstrates ability to learn from past experiences (regardless of outcome), enhances confidence and execution of tasks.					
TOWARD PHYSICAL ACTIVITY, SPORT PARTICIPATION, AND TRAINING	• Swimmer explores wide range of movement patterns in various environments • Swimmer participates in free play • Swimmer chooses different activities that make them happy	• Swimmer makes choices to participate in a variety of sports • Swimmer describes role of preparation for participation in local competitions • Swimmer displays enthusiasm for regular training opportunities	• Swimmer appreciates and invests in regular training • Swimmer describes difference between effort, progress, and outcome • Swimmer identifies intrinsic and extrinsic influences on their participation	• Swimmer identifies meaningful competition experiences and associated learning that has unfolded • Swimmer shows enthusiasm and commitment toward regular training and challenging competition • Swimmer participates in making choices of competitions that advance their performance	
LEARNING FROM STRUGGLES AND SETBACKS	• Swimmer describes experiences and outcomes that arise from difficult or challenging activities – from school, sport, friends, family • Swimmer describes observations of others that are struggling or having a hard time • Swimmer describes their experience of continuing to try something difficult	• Swimmer describes struggles in different areas of their life (sport, school, friends, family) • Swimmer describes their approach to these struggles and the resulting outcome • Swimmer describes perseverance and how this shows up in their life • Swimmer contributes to supportive discussions with teammates • Swimmer describes the role of struggle and goal-setting • Swimmer defines “success”, “failure”, “struggle”, “setback”, “progress”	• Swimmer portrays positive example of integrating struggle with goal-setting • Swimmer supports teammates with their own struggles and goal-setting • Swimmer identifies the impact of struggles and setbacks on their training, competition, and overall progress • Swimmer develops an approach to identifying source of setback and assess how to move forward • Swimmer identifies support network (family, friends, others) to help with setbacks or unexpected outcomes • Swimmer asks for assistance from others, if needed	• Swimmer normalizes struggle and setbacks within their athletic career • Swimmer employs, evaluates effectiveness, and modifies strategy to manage setbacks • Swimmer cultivates support network to help with setbacks and plans to transition out of high performance pathway • Swimmer asks for additional support or assistance when strategies not restorative	

MENTAL SKILLS

LTAD STAGE	FUNDAMENTALS (FUN)	LEARN TO TRAIN (L2T)	TRAIN TO TRAIN (T2T)	TRAIN TO COMPETE (T2C)	TRAIN TO WIN (T2W)
AGE OR STAGE	FEMALE 5-8 MALE 6-9	FEMALE 8 – ONSET OF PUBERTY MALE 9 – ONSET OF PUBERTY	PERIOD OF PUBERTY FEMALE AND MALE	PODIUM PATHWAY COMPETITIVE FOR LIFE	PODIUM PATHWAY COMPETITIVE FOR LIFE
TRANSITION FROM HIGH PERFORMANCE PATHWAY	• Swimmer describes roles and responsibilities associated with swimming • Swimmer accepts changing responsibilities associated with swimming		• Swimmer describes favourable and unexpected outcomes associated with a high performance swimming career due to: response to training, level of interest, durability and injury, financial support, academic desires, relationship or family responsibilities among others. • Swimmer describes alternative roles that can be assumed with the sport (coach, official, media, volunteer, other) • Swimmer describes alternative activities that could be pursued to support unexpected or involuntary departure from swimming	• Swimmer discusses transition within swimming career with ease • Swimmer identifies "what's next" following their high performance career (education, employment, family, other options)	
MOTIVATION – Desire and determination to improve, ability to initiate and persist at a task, connected to and supported by effective goal-setting.					
MOTIVATION FROM FEELINGS OF MASTERY OF SWIMMING	• Swimmer demonstrates competence, joy, and confidence in fundamental movement skills including swimming and other physical activities	• Swimmer displays high level of basic human movement skills in a number of physical activities, including swimming and other sports	• Swimmer demonstrates meaningful progress in swimming skill development, contribution to team cohesion, resilient response to training times, and competition performance	• Swimmer demonstrates desire and determination to continually improve to reach provincial and national standards	• Swimmer demonstrates desire and determination to continually improve to reach national and international standards
MOTIVATION FROM FEELINGS OF BEING A MEMBER OF A SWIM CLUB/TEAM	• Swimmer demonstrates joy to be a member of a swim club • Swimmer shows enthusiasm to participate in adult or peer-led activities with swimming friends (with adult supervision)	• Swimmer shows respect and self-acceptance as a member of a swim club • Swimmer develops friendships with other members from swim club • Swimmer participates in non-swimming activities with swimming friends	• Swimmer steps into informal or formal leadership roles in swim club • Swimmer values their contributions to the team and club • Swimmer enjoys opportunities for informal activities with mutually chosen friends from swim team	• Swimmer shows strong affiliation to both club swim team and Provincial or National team • Swimmer feels accepted by peers • Swimmer shows respect and pride in representing Canada on the world stage	
MOTIVATION FROM FINDING MEANING IN SWIMMING PARTICIPATION	• Swimmer demonstrates awareness of self and others	• Swimmer describes role, responsibility, and feelings attached to membership of the team and club	• Swimmer describes their personal contribution to achieving club or team goals • Swimmer describes the contribution made by others to achieving personal goals	• Swimmer describes relationship between personal and group goals • Swimmer contributes to local club or development of younger swimmers	• Swimmer articulates meaning associated with representing Canada

MENTAL SKILLS

LTAD STAGE	FUNDAMENTALS (FUN)	LEARN TO TRAIN (L2T)	TRAIN TO TRAIN (T2T)	TRAIN TO COMPETE (T2C)	TRAIN TO WIN (T2W)
AGE OR STAGE	**FEMALE 5-8 MALE 6-9**	**FEMALE 8 – ONSET OF PUBERTY MALE 9 – ONSET OF PUBERTY**	**PERIOD OF PUBERTY FEMALE AND MALE**	**PODIUM PATHWAY COMPETITIVE FOR LIFE**	**PODIUM PATHWAY COMPETITIVE FOR LIFE**
GOAL SETTING – Clearly stating a result, outcome, or specific set of aims that are chosen to pursue, helps with persistence, allows athlete to gauge their efforts and provides meaningful feedback, goal-setting may be guided or supported by another person or self-initiated or a combination of both.					
GOAL SETTING WITH GUIDANCE	• Swimmer identifies things they want (goal) and how they might go about getting those things • Swimmer able to describe simple steps needed to achieve a goal	• Swimmer develops short-term goals with coach's guidance – these goals include both training goals and competition goals • Swimmer identifies multiple factors influencing goal setting and goal attainment • Swimmer identifies supports required to achieve goals	• Swimmer develops short-, medium-, and long-term training and performance goals in collaboration with coach • Swimmer identifies and sets realistic personal, annual, and multi-year goals • Swimmer identifies and sets intermediate goals to support longer term goals • Swimmer identifies supports required to achieve goals	• Swimmer develops evidence-informed short-, medium-, and long-term training and performance goals in collaboration with coach and IST • Swimmer establishes non-swimming related goals with support from others as needed • Swimmer sets quadrennial (or longer term) swimming and career goals along with necessary supports	
SELF-INITIATED GOAL SETTING	• Swimmer identifies short-term goals accompanied by necessary steps		• Swimmer assumes ongoing responsibility for monitoring and revising goals	• Swimmer provides feedback about goal-setting process and modifies as needed	

SMART GOAL SETTING AND TRACKING	• Swimmer illustrates goal setting framework (SMART):
	  • Specific
	  • Measurable
	  • Attainable
	  • Realistic
	  • Time-bound
			• Swimmer aligns goal-setting process with SMART framework
			• Swimmer asks for assistance or guidance as needed
				• Swimmer sets and monitors goal-setting using SMART framework with support from coach and IST	

EMOTION IDENTIFICATION AND REGULATION – A set of skills and understandings that help athletes recognize, express, and regulate their emotions; a set of skills includes sympathy, empathy, and perspective-taking. Emotional skills allow athletes to manage their own emotions and cope with different situations in constructive ways. These skills are fundamental to positive social interactions and critical to building relationships with peers and adults, which exist at the core of individual and team sports.					
IDENTIFYING EMOTIONS	• Swimmer recognizes and accurately labels emotions • Swimmer identifies situations that cause those emotions	• Swimmer describes a variety of emotions, and understands how emotions are linked to behaviours	• Swimmer distinguishes different levels of emotions and explains the physical reaction to various emotions (e.g. how bodies look and feel)	• Swimmer creates a plan for managing a variety of emotions, likely in partnership with the IST	

MENTAL SKILLS

LTAD STAGE	FUNDAMENTALS (FUN)	LEARN TO TRAIN (L2T)	TRAIN TO TRAIN (T2T)	TRAIN TO COMPETE (T2C)	TRAIN TO WIN (T2W)
AGE OR STAGE	**FEMALE 5-8 MALE 6-9**	**FEMALE 8 – ONSET OF PUBERTY MALE 9 – ONSET OF PUBERTY**	**PERIOD OF PUBERTY FEMALE AND MALE**	**PODIUM PATHWAY COMPETITIVE FOR LIFE**	**PODIUM PATHWAY COMPETITIVE FOR LIFE**
REGULATING EMOTIONS AND IMPULSE CONTROL	• Swimmer describes their emotions to others	• Swimmer predicts their own emotional response to common situations including sport, school, friends, family • Swimmer articulates link between emotions, self-talk, and physical feelings • Swimmer describes preferred emotions, self-talk, and physical feelings for training and competition	• Swimmer anticipates and identifies emotions likely to arise during training and competition • Swimmer demonstrates a strategy to manage emotions, self-talk, and physical responses that support or interfere with performance • Swimmer contributes to club atmosphere to create supportive training and competition environment	• Swimmer continues to refine the identification and management of emotions and appropriate self-talk that support or interfere with their performance • Swimmer practices and assesses effectiveness of emotion regulation before, during, and after training and competition	
RECOGNIZING EMOTIONS OF OTHERS	• Swimmer identifies feelings and emotions of others	• Swimmer describes feelings, emotions, and perspectives of others • Swimmer understands and respects the perspective of others who experience different or difficult situations, or who make difficult sporting decisions • Swimmer contributes to club approach to address emotion recognition and regulation	• Swimmer supports and models club-supported approach to help teammates identify and regulate emotions • Swimmer explains outcomes or impact of expressing emotions in various ways in different situations.	• Swimmer supports and models PTSO or Swimming Canada-supported approach to help teammates identify and regulate emotions	
ATTENTIONAL CONTROL (FOCUS) – Concentrating on those things that are important during training, competition, and recovery, being aware of the internal and external stimuli that are detected by the senses, effectively managing those stimuli that impact performance, enhancing concentration and focus.					
ATTENTION SPAN	• Swimmer demonstrates developmentally-appropriate executive function skills (working memory, cognitive flexibility, inhibitory control) • Swimmer demonstrates ability to remember a few tasks and the proper sequence • Swimmer is able to wait to take their turn • Swimmer displays appropriate attention and is able to work independently for short periods of time	• Swimmer begins to ignore irrelevant distractions or peripheral stimuli while focusing on task at hand • Swimmer demonstrates ability to remember individual tasks or cues and the proper sequence • Swimmer displays ability to monitor environment and react quickly to changing demands	• Swimmer builds length of attention and ignoring irrelevant stimuli from their environment • Swimmer identifies stimuli that distracts them in different situations	• Swimmer remembers multiple tasks, rules, and strategies that may vary by situation • Swimmer consistently demonstrates self-control, such as flexibly switching between a central focus (such as riding a bike or driving) and peripheral stimuli that may or may not need attention (road signs and pedestrians vs. billboards and passing houses)	

MENTAL SKILLS

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AGE OR STAGE	FEMALE 5-8 MALE 6-9	FEMALE 8 – ONSET OF PUBERTY MALE 9 – ONSET OF PUBERTY	PERIOD OF PUBERTY FEMALE AND MALE	PODIUM PATHWAY COMPETITIVE FOR LIFE	PODIUM PATHWAY COMPETITIVE FOR LIFE
NARROW FOCUSED ATTENTION	• Swimmer displays awareness of internal and external stimuli • Swimmer comprehends and responds to cues about their stroke	• Swimmer describes differences between internal, external, broad, and narrow attention • Swimmer describes the things they can do automatically and those things that require cognitive awareness	• Swimmers articulate the items on which they are attempting to focus during key moments in starts, turns, free swimming, and finishes • Swimmer, with support from the coach, identifies situations of poor focus and strategies to achieve desired focus	• Swimmer implements and refines (as needed) a strategy to achieve ideal focus under different conditions and when experiencing increased demands	
BROAD DISTRIBUTED FOCUS	• Swimmer displays awareness of internal and external stimuli • Swimmer comprehends and responds to information and cues from their environment	• Swimmer describes differences between internal, external, broad, and narrow attention • Swimmer reports number of strokes required per length of pool • Swimmer describes switch from internal focus to external focus near pool end	• Swimmer develops race protocol for their focus • Swimmer applies decision-making about when (or if) to monitor position with respect to other swimmers in race • Swimmer describes relationship between and flow of internal to external focus during race conditions	• Swimmer consistently applies race protocols for focus, and links focus protocol to race strategy • Swimmer refines strategy (as needed) and can respond to different conditions and when experiencing increased demands	
VISUALIZATION	• Swimmer participates in self- or peer-led imaginative play • Swimmer describes their experiences during imaginary play • Swimmer creates stories to explore various imaginary situations with their peers	• Swimmer describes with increasing detail, their visualization skills, including visual, auditory, olfactory, tactile, and kinesthetic experiences • Swimmer practices different visualization exercises and begins to develop a strategy for implementation	• Swimmer refines their visualization process and uses appropriate strategy for different training and competition conditions • Swimmer includes more details within their visualization practice regarding timing, frequency, duration, and purpose	• Swimmer self-initiates visualization process • Swimmer reflects and revises visualization process to best meet their needs for training and competition • Swimmer accurately visualizes specific strokes and race lengths • Swimmer effectively combines visualization with full inclusion of senses for different conditions and when experiencing increasing demands • Swimmer prepares contingency plans for event delays, equipment failures, or other problems	

MENTAL SKILLS

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AGE OR STAGE	FEMALE 5-8 MALE 6-9	FEMALE 8 – ONSET OF PUBERTY MALE 9 – ONSET OF PUBERTY	PERIOD OF PUBERTY FEMALE AND MALE	PODIUM PATHWAY COMPETITIVE FOR LIFE	PODIUM PATHWAY COMPETITIVE FOR LIFE
REDUCING ERRORS – Understanding ideal performance state, describe what a strong performance looks like and feels like, describing source of errors knowing that errors are likely a product of multiple factors, developing intentional and well-informed process to prepare for performance.					
ERROR CORRECTION	• Swimmer describes what they want to do • Swimmer identifies confusing tasks	• Swimmer continues to describe the tasks they want to do and have been asked to do • Swimmer can watch short video or demonstration to facilitate their learning • Swimmer begins to distinguish simple errors and necessary correction	• Swimmer displays comfort describing errors, and with help from coach, identifies strategies to correct or improve • Swimmer able to identify source of error • Swimmer seeks feedback from coach, peers, videos, or other supported learning formats • Swimmer develops a specific post-race routine of visualization of correctly performed skill, followed by targeted approach for next competition	• Swimmer values training routines to develop strong approach to error reduction • Swimmer, with support from IST, track errors where and when they are made during competition • Swimmer identifies error patterns and develops responsive strategies for elimination or reduction • Swimmer identifies different conditions or situations of increased demand that are associated with errors.	
ERROR AVOIDANCE	• Swimmer describes experiences and outcomes that arise from difficult or challenging activities – from school, sport, with friends, family • Swimmer describes observations of others that are struggling • Swimmer describes experience and outcome of trying new tasks or challenges	• Swimmer adopts perseverance mindset toward learning new and more challenging tasks • Swimmer employs “detective” mindset to explore source of error and ways of doing things differently	• Swimmer contributes to analysis of training and competition performance • Swimmer values feedback from coach, video, or other support sources	• Swimmer is competent and comfortable in regular assessment of training and competition performance, including error correction and error reduction • Swimmer competently discusses strategies to address error correction and error reduction -- includes seeking support from coach, video, IST, or other support sources	

MENTAL SKILLS

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AGE OR STAGE	FEMALE 5-8 MALE 6-9	FEMALE 8 – ONSET OF PUBERTY MALE 9 – ONSET OF PUBERTY	PERIOD OF PUBERTY FEMALE AND MALE	PODIUM PATHWAY COMPETITIVE FOR LIFE	PODIUM PATHWAY COMPETITIVE FOR LIFE
IDEAL PERFORMANCE STATE	• Swimmer describes situations that they prefer or avoid when playing with friends, when learning at school, when at home	• Swimmer identifies factors that can be managed to create ideal conditions for training and competition • Swimmer describes how they feel before, during, and after training and competition • Swimmer describes feelings when they have shown progress during training or competition	• Swimmers identifies factors that contribute to ideal performance state • Swimmer monitors these factors before, during, and after different situations (training, competition) • Swimmer, with support from coach, develops an ideal performance state profile and strategy • Swimmer practices this strategy and modifies as needed	• Swimmer continues to refine their ideal performance state under different conditions, situations of increased demand • Swimmer creates ideal performance state profile that responds to unexpected conditions or outcomes	
PERCEPTUAL COGNITION – Ability to identify and acquire environmental information for integration with existing knowledge such that appropriate responses can be selected and executed; knowing where and when to look while distinguishing relevant from irrelevant information.					
VISUAL PERCEPTION	• Swimmer tracks moving objects of various sizes, moving at different speeds and in different directions • Swimmer identifies distractions (what gets in their way of tracking and attending to object of focus)	• Swimmer expands ability to track moving objects, including when object is temporarily occluded • Swimmer knows and recognizes simple sport movement patterns and determines appropriate response • Swimmer begins to discriminate between relevant and irrelevant information	• Swimmer increases proficiency to recognize complex sport movement patterns combined with discriminating relevant from irrelevant information • Swimmer demonstrates increased speed and accuracy of decision-making • Swimmer tracks multiple moving objects and discerns cues to achieve desired performance	• Swimmer's speed and accuracy of decision-making improves despite visual and audible distractions • Swimmer develops robust protocol to ignore distractions and irrelevant stimuli	
SPORT-SPECIFIC DECISION-MAKING	• Swimmer verbalizes tracking activities, describes anticipated movement, identifies decision-making choice	• Swimmer describes environment, tracking of moving objects, distinguishes relevant factors to performance from those that are irrelevant with decision-making process	• Swimmer incorporates necessary physical, technical/tactical attributes into training and performance environment • Swimmer improves tracking and separation of relevant from irrelevant stimuli	• Swimmer demonstrates competency and execution of physical and technical/tactical skills while attending to relevant environmental cues and making appropriate decisions	

LIFE SKILLS

LTAD STAGE	FUNDAMENTALS (FUN)	LEARN TO TRAIN (L2T)	TRAIN TO TRAIN (T2T)	TRAIN TO COMPETE (T2C)	TRAIN TO WIN (T2W)
AGE OR STAGE	FEMALE 5-8 MALE 6-9	FEMALE 8 – ONSET OF PUBERTY MALE 9-ONSET OF PUBERTY	PERIOD OF PUBERTY FEMALE AND MALE	PODIUM PATHWAY COMPETITIVE FOR LIFE	PODIUM PATHWAY COMPETITIVE FOR LIFE
SOCIAL AND EMOTIONAL LEARNING (SEL) CORE COMPETENCIES – SELF-AWARENESS; SELF-MANAGEMENT; SOCIAL AWARENESS; RELATIONSHIP SKILLS; RESPONSIBLE DECISION-MAKING					
SELF-AWARENESS – Accurately recognizing one's own feelings and thoughts and their influence on behaviour; accurately assessing one's interests, strengths, and limitations and possessing a well-grounded sense of self-efficacy and optimism. The ability to accurately recognize one's own emotions, thoughts, and values and how they influence behavior. The ability to accurately assess one's strengths and limitations, with a well-grounded sense of confidence, optimism, and a "growth mindset." When the swimmer is presented developmentally-appropriate challenges combined with suitable supports, this is the foundation for resilience.					
AUTONOMY AND INDEPENDENCE	• Swimmers encouraged to express preferences for different physical activities, including swimming when given meaningful choices	• Swimmer knows time and location of swim practices and competitions • Swimmer arrives on time and ready to participate with the necessary equipment and clothing	• Swimmer given responsibility for leading specific parts of practices and completing between-practice requirements • Swimmer is motivated to set training and performance goals	• Swimmer takes responsibility for being full-time athlete and learns to integrate sport and non-sport demands • Swimmer is capable of setting realistic training and performance goals • Swimmer is learning to work with IST in decision-making	• Swimmer takes responsibility for being full-time athlete, continues to integrate sport and non-sport demands, and is partner with IST in decision-making
SELF-CONFIDENCE AND SELF-ESTEEM	• Swimmer demonstrates appreciation for physical competence and increased confidence in physical ability through learning to swim and trying other activities • Swimmer shows happiness and fulfillment when fully engaged in activity	• Swimmer successfully swims multiple strokes and competes in developmentally-appropriate competitions • Swimmer is willing to try new skills or new activities • Swimmer demonstrates comfort in their swimsuit	• Swimmer continues to increase performance capacity in swimming and other physical activities • Swimmer values effort and progress as opposed to competition results alone • Swimmer recognizes conditions of changing and increasing demand • Swimmer describes different swimsuits used for training and competition	• Swimmer displays strong swimming ability and results under pressure, on demand, and when being observed	• Swimmer produces results under pressure, on demand, and under intense scrutiny
IDENTIFYING EMOTIONS	• Swimmer recognizes and accurately labels emotions • Swimmer identifies situations that cause those emotions	• Swimmer describes a variety of emotions, and understands how emotions are linked to behaviours	• Swimmer distinguishes different levels of emotions and explains the physical reaction to various emotions (e.g. how bodies look and feel).	• Swimmer creates a plan for managing a variety of emotions, likely in partnership with the IST	
RECOGNIZING STRENGTHS	• Swimmer can differentiate between likes and dislikes • Swimmer can express what they are good at and what needs development	• Swimmer describes interests to pursue and skills to develop needed for the pursuit • Swimmer can experience challenge and (with support) develop strategies to re-engage	• Swimmer identifies personal strengths and the skills required to develop those strengths • Swimmer shows learning and continues to develop strategies in response to challenges	• Swimmer can analyze perceived limitations and create a plan leveraging strengths to address limitations	

LIFE SKILLS

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AGE OR STAGE	**FEMALE 5-8 MALE 6-9**	**FEMALE 8 – ONSET OF PUBERTY MALE 9-ONSET OF PUBERTY**	**PERIOD OF PUBERTY FEMALE AND MALE**	**PODIUM PATHWAY COMPETITIVE FOR LIFE**	**PODIUM PATHWAY COMPETITIVE FOR LIFE**
ACCURATE SELF-PERCEPTION	• Swimmer can identify when help is needed and seek help when appropriate	• Swimmer can describe an activity, skill, or task in which help is needed to be successful • Swimmer can distinguish discomfort from working hard and pain from acute or chronic injury	• Swimmer can distinguish between personal feelings and how one is expected to feel in a variety of situations	• Swimmer can advocate for oneself by creating 'I'-messages to present personal perspective	
SELF-MANAGEMENT – Regulating one's emotions, cognitions, and behaviours; setting and achieving personal goals; persevering in addressing challenges. The ability to successfully regulate one's emotions, thoughts, and behaviors in different situations – effectively managing stress, controlling impulses, and motivating oneself. The ability to set and work toward personal and academic goals.					
BUILDING COMMITMENT AND WORK ETHIC	• Swimmer shows delight, joy, and full engagement when involved in developmentally-appropriate activities	• Swimmer begins to describe personal goals beyond competitive success • Swimmer responds to frustration with alternate strategies developed with others • Swimmer can describe their effort and progress in addition to competitive outcome	• Swimmer continues to distinguish effort from outcome, both in and out of the pool • Swimmer appreciates non-swimming activities as elements of team building	• Swimmer demonstrates necessary skills and time management to progress goals both in and out of the water	
IMPULSE CONTROL	• Swimmer demonstrates self-control in a variety of settings (e.g. differentiates between needs and wants, follows club-wide behaviour expectations)	• Swimmer applies self-monitoring strategies to regulate emotions	• Swimmer explains possible outcomes of expressing emotions in various ways in different situations • Swimmer avoids inappropriate communication with coaches and peers	• Swimmer applies strategies to mitigate personal response to different levels of emotions • Swimmer perceives, adjusts, and controls internal physical signals such as fatigue and pain in physical activity settings (e.g., pacing through an endurance event)	
STRESS MANAGEMENT	• Swimmer defines stress – what does stress look like when I'm at the pool? In school? With my friends? At home?	• Swimmer identifies personal stressors in the different areas of their lives (school, home, friends, sport, other)	• Swimmer applies stress management strategies to the different areas of their life (school, home, friends, sport, other)	• Swimmer creates a long-term plan for stress management throughout the lifespan	
SELF-DISCIPLINE	• Swimmer identifies what it means to be responsible and lists personal responsibilities	• Swimmer displays consistent behaviours to meet personal responsibilities • Swimmer shows persistence • Swimmer is able to regulate or overcome anger or other emotions in order to participate	• Swimmer displays endurance when facing adversity for the purpose of personal growth • Swimmer is able to overcome nervousness to perform • Swimmer is able to stretch themselves, yet work within own physical limits	• Swimmer consistently applies strategies for working hard in challenging settings	

LIFE SKILLS

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AGE OR STAGE	FEMALE 5-8 MALE 6-9	FEMALE 8 – ONSET OF PUBERTY MALE 9-ONSET OF PUBERTY	PERIOD OF PUBERTY FEMALE AND MALE	PODIUM PATHWAY COMPETITIVE FOR LIFE	PODIUM PATHWAY COMPETITIVE FOR LIFE
SELF-MOTIVATION	• Swimmer shows eagerness to participate • Swimmer utilizes self-talk for the purpose of self-motivation	• Swimmer identifies internal and/or external motivating factors in a variety of situations • Swimmer can channel frustration into motivation	• Swimmer displays indicators of a growth mindset	• Swimmer applies strategies for developing and maintaining a growth mindset	
GOAL SETTING	• Swimmer identifies goals for success and expected behaviours in different settings (pool, school, family, friends, other)	• Swimmer applies a goal setting process to work toward goal achievement (e.g. SMART). • Swimmer responds positively to input and feedback	• Swimmer creates and monitors personal, academic, and athletic goals to meet identified needs	• Swimmer creates a plan for monitoring progress toward personal, academic, and athletic short- and long-term goal achievement	
ORGANIZATIONAL SKILLS	• Swimmer utilizes prescribed routines to understand physical and mental organizational strategies	• Swimmer identifies strategies for planning, prioritizing, and managing time	• Swimmer applies strategies for planning, prioritizing, and managing time	• Swimmer creates a plan for planning, prioritizing, and managing time independently to maximize efficiency	
SOCIAL AWARENESS – Taking the perspective of and empathizing with others; appreciating diversity; respecting others, persevering in addressing challenges; recognize community resources. The ability to take the perspective of and empathize with others, including those from diverse backgrounds and cultures. The ability to understand social and ethical norms for behavior and to recognize family, school, and community resources and supports.					
APPRECIATING DIVERSITY	• Swimmer understands that individual and group differences complement each other and make the world more interesting • Swimmers are able to express opinions when issues of fairness arise • Swimmer recognizes and acknowledges individual differences in others • Swimmer identifies reasons why they participate in sport – beyond time of finish – includes friends, fun, learning, and other reasons they provide	• Swimmer accepts individual differences in attitudes, beliefs, and behaviour • Swimmer values the contribution that diversity brings to their sport – swimmer resists stereotypes • Swimmer discusses the meaning of an inclusive, safe, and fair environment in which to participate – this may include issues around team selection or participation in team events • Despite differences, swimmer knows all people have similar needs, feelings, and wants	• Swimmer continues to build acceptance of differences including gender, ability, race, and sexual orientation • Swimmer can analyze how people from diverse peer groups can learn from each other • Swimmer helps to develop and model behavioural expectations around team or club acceptance of diversity • Swimmer helps to develop and model behavioural expectations for team members and officials to support interactions with other teams or cultures	• Swimmer accepts that overseas travel will introduce them to different cultures, laws, and attitudes towards diverse populations – particularly, laws and attitudes related to religious observation, clothing expectations, gender differences, and sexual orientation • Swimmer demonstrates strategies for expressing understanding towards those who hold different attitudes, beliefs, and behaviours	

LIFE SKILLS

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DEVELOPING LEADERSHIP SKILLS	• Swimmer understands that leadership comes in different forms and from different people – it comes from the self, it comes from teammates, friends, family, coaches, and others • Swimmer is able to follow instructions and is provided opportunity for small leadership tasks	• Swimmer identifies and describes different forms of leadership • Swimmer is given opportunities for small leadership tasks and is assisted if necessary • Swimmer exhibits leadership by intentionally leading one's own life • Swimmer exhibits leadership by working well with and encouraging the greatness in others—whether teammates, coaches, family, friends	• Swimmer assumes specific leadership roles under guidance of coach • Swimmer initiates some leadership roles • Swimmer demonstrates self-initiated leadership • Swimmer supports leadership roles and responsibilities to achieve individual and team goals	• Swimmer assumes responsibility for team leadership roles, both in and out of the pool • Swimmer is well-informed about swimming rules and regulations so that they can take an informed leadership role • Swimmer continues to support leadership roles and responsibilities to achieve individual and team goals	
PERSPECTIVE-TAKING / EMPATHY	• Swimmer identifies a trusted adult for help when needed • Swimmer identifies the feelings and perspectives of others	• Swimmer demonstrates appropriate strategies to ask for help in a variety of situations • Swimmer describes feelings and perspectives of others • Swimmer understands the perspective of others who experience different or difficult situations or who make difficult sporting decisions • Swimmer supports others who are excluded from group activities by peers	• Swimmer identifies support at the pool, club, home, school, and in the community • Swimmer demonstrates the ability to anticipate feelings and perspectives of others in a variety of situations	• Swimmer evaluates and utilizes available resources at the pool, club, home, school, and in the community • Swimmer analyzes the effect of personal behavior with reference to the feelings and perspectives of others and adjusts personal behavior accordingly	
RESPECT FOR OTHERS	• Swimmer describes positive qualities in others, including teammates, coaches, friends, and family	• Swimmer demonstrates strategies for working and playing effectively with others	• Swimmer evaluates strategies for being respectful of others and towards opposing stereotyping and prejudice	• Swimmer evaluates how society and cultural norms, morals, and values affect personal interactions	

LIFE SKILLS

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AGE OR STAGE	FEMALE 5-8 MALE 6-9	FEMALE 8 – ONSET OF PUBERTY MALE 9-ONSET OF PUBERTY	PERIOD OF PUBERTY FEMALE AND MALE	PODIUM PATHWAY COMPETITIVE FOR LIFE	PODIUM PATHWAY COMPETITIVE FOR LIFE
RESPONSIBLE DECISION MAKING – Making constructive choices. The ability to make constructive choices about personal behavior and social interactions based on ethical standards, safety concerns, and social norms. The realistic evaluation of consequences of various actions, and a consideration of the wellbeing of oneself and others.					
UNDERSTANDING RULES	• Swimmer begins to learn and obey rules of the sport and why rules are necessary (enjoyment, success, safety) • Swimmer appreciates that rules may be explicit, spoken, or unspoken	• Swimmer demonstrates understanding of rules and explains why they are necessary (enjoyment, success, safety) • Swimmer describes and demonstrates "Fair Play" and sportsmanship	• Swimmer describes the rules of the sport, including the informal culture of the application of the rules • Swimmer describes behaviours that violate "Fair Play" and sportsmanship (eg., doping) • Swimmer complies with rules governing swimsuits during competition	• Swimmer describes the concept of strict liability and takes full responsibility for all substances in their body • Swimmers engage in ethical sport	
LINKING ACTIONS & CONSEQUENCES	• Swimmer makes the connection between sport actions or choices and sport penalties, and knows the outcomes of their actions	• Swimmer knows both short-term and long-term consequences of actions or choices • Swimmer describes the impact of social pressure and peer group in making choices	• Swimmer connects training commitment to short- and long-term performance goals • Swimmer understands short-term planning supports long-term goal achievement in swimming, education, and other aspects of life • Swimmer clearly articulates consequences of their own choices and the choices of teammates, coaches, and officials on others	• Swimmer clearly articulates consequences that own actions will have on others and assesses different actions in light of anticipated consequences to self and others • Swimmer applies broad ethical principles to evaluating consequences of potential outcomes	
IDENTIFYING PROBLEMS	• Swimmer defines a problem or challenge that might occur in a variety of situations (pool, club, school, friends, home)	• Swimmer identifies problems and challenges in a variety of situations (pool, club, school, friends, home)	• Swimmer demonstrates the ability to acknowledge problems and challenges in a variety of situations (pool, club, school, friends, home)	• Swimmer demonstrates the ability to accurately anticipate problems and challenges in a variety of situations (pool, club, school, friends, home)	

LIFE SKILLS

LTAD STAGE	FUNDAMENTALS (FUN)	LEARN TO TRAIN (L2T)	TRAIN TO TRAIN (T2T)	TRAIN TO COMPETE (T2C)	TRAIN TO WIN (T2W)
AGE OR STAGE	FEMALE 5-8 MALE 6-9	FEMALE 8 – ONSET OF PUBERTY MALE 9-ONSET OF PUBERTY	PERIOD OF PUBERTY FEMALE AND MALE	PODIUM PATHWAY COMPETITIVE FOR LIFE	PODIUM PATHWAY COMPETITIVE FOR LIFE
ANALYZING SITUATIONS	• Swimmer analyzes potential consequences of choices • Swimmer begins to describe risk, risk-management, and safety	• Swimmer utilizes refusal skills • Swimmer behaves responsibly and does not endanger self or others • Swimmer acknowledges potential risks of activity and environment before participating	• Swimmer analyzes factual information surrounding situations in a variety of circumstances (pool, club, school, friends, home)	• Swimmer differentiates between emotional response and factual information surrounding situations in a variety of circumstances (pool, club, school, friends, home)	
SOLVING PROBLEMS	• Swimmer explains a problem-solving process, or how to tackle a challenge	• Swimmer applies strategies to appropriately solve problems or challenges	• Swimmer evaluates potential solutions to problems and challenges	• Swimmer creates a plan to apply the most appropriate solutions to problems and challenges	
EVALUATING & REFLECTING	• Swimmer explains the differences between safe and risky behaviors	• Swimmer compares and contrasts the potential outcomes of engaging in safe and risky behaviors	• Swimmer recognizes unsafe or high-risk situations and utilizes strategies to remove oneself	• Swimmer analyzes how current choices might impact their short-, medium-, and long-term goals and wellbeing	
ETHICAL RESPONSIBILITY	• Swimmer lists age appropriate responsibilities at the pool, club, home, school, and community • Swimmer defines what is right or wrong using “Fair Play” and sportsmanship	• Swimmer demonstrates personal responsibility for choices, decisions, and actions	• Swimmer evaluates how external influences such as media, peers, and/or cultural norms influence personal behavior • Swimmer defines the ethical issue in a problem, sees both sides of the issue, and articulates alternate solutions • Swimmer intervenes to prevent bullying and degrading initiations • Swimmer takes a clear, personal, and public stand on doping and other forms of cheating	• Swimmer applies moral, personal, and ethical standards when making decisions • Swimmer takes a clear, personal, and public stand on doping and other forms of cheating • Swimmer acts proactively through appropriate channels when they suspect others are doping, cheating, or being unethical	

LIFE SKILLS

LTAD STAGE	FUNDAMENTALS (FUN)	LEARN TO TRAIN (L2T)	TRAIN TO TRAIN (T2T)	TRAIN TO COMPETE (T2C)	TRAIN TO WIN (T2W)
AGE OR STAGE	FEMALE 5-8 MALE 6-9	FEMALE 8 – ONSET OF PUBERTY MALE 9-ONSET OF PUBERTY	PERIOD OF PUBERTY FEMALE AND MALE	PODIUM PATHWAY COMPETITIVE FOR LIFE	PODIUM PATHWAY COMPETITIVE FOR LIFE
RELATIONSHIP SKILLS – Establishing and maintaining healthy and rewarding relationships; communicating clearly; resisting inappropriate social pressure; negotiating conflict constructively; seeking and offering help when needed. The ability to establish and maintain healthy and rewarding relationships with diverse individuals and groups. The ability to communicate clearly, listen well, cooperate with others, resist inappropriate social pressure, negotiate conflict constructively, and seek and offer help when needed.					
MANAGING CONFLICT	• Swimmer describes the source or cause of conflict • Swimmer identifies conflict or friction in various situations (pool, club, friends, family, school, community)	• Swimmer articulates the other person's perspective in a conflict • Swimmer listens to perspectives of others • Swimmer differentiates between conflict and bullying • Swimmer contributes to the development of athlete and club strategies to address conflict and friction	• Swimmer is learning to recognize signs of developing conflict and, if necessary, approaches with club-supported strategies – these may include but not limited to discussing with teammate, asking for support from coaches or other club officials • When comfortable doing so, swimmer may intervene to reduce conflict or frictions between teammates • Swimmer applies conflict resolution strategies in a variety of situations (pool, club, friends, family, school, community)	• Swimmer anticipates and identifies early signs of conflict between team members and supports resolution • Swimmer develops communication skills to reduce on-deck and off-deck conflicts • Swimmer understands when conflicts are too protracted or intense for peer intervention, and brings conflict to the attention of coaches or other officials • Swimmer knows their own response to conflict and creates a plan for managing conflict	
RELATIONSHIPS WITH ADULTS	• Swimmer demonstrates comfort with a wide range of adults (parent, caregiver, coach, teacher and others) • Swimmer understands an appropriate child-adult relationship	• Swimmer articulates boundaries in athlete-coach relationships • Swimmer displays positive relationship with coach, or sport leader and other adults	• Swimmer knows club-supported process for reporting inappropriate physical, psychological, or sexual actions of teammates, coaches, or other sport personnel • Swimmer develops trusting relationship with a positive adult role model • Swimmer distinguishes personal from professional relationships and related boundaries for each	• Swimmer clearly separates personal from professional relationships and displays appropriate behaviours for each • Swimmer develops respectful relationships and displays positive interactions with other adults	

LIFE SKILLS

LTAD STAGE	FUNDAMENTALS (FUN)	LEARN TO TRAIN (L2T)	TRAIN TO TRAIN (T2T)	TRAIN TO COMPETE (T2C)	TRAIN TO WIN (T2W)
AGE OR STAGE	FEMALE 5-8 MALE 6-9	FEMALE 8 – ONSET OF PUBERTY MALE 9-ONSET OF PUBERTY	PERIOD OF PUBERTY FEMALE AND MALE	PODIUM PATHWAY COMPETITIVE FOR LIFE	PODIUM PATHWAY COMPETITIVE FOR LIFE
RELATIONSHIPS WITH TEAMMATES	• Swimmer knows the importance of positive relationships with teammates • Swimmer expresses their own needs and listens to the needs of others • Swimmer recognizes and identifies emotions of others and demonstrates empathy	• Swimmer develops strategies for supporting positive interactions • Swimmer recognizes negative interactions and attempts to reduce negative interactions between themselves and teammates	• Swimmer understands appropriate boundaries between teammates • Swimmer describes the possible positive and negative outcomes associated with romantic or sexual relationships with teammates • Swimmer knows club-supported process for reporting inappropriate physical, psychological, or sexual actions of teammates • Swimmer takes recommended steps for intervening to create safe and positive team environment • Swimmer works effectively with teammates they do not like or get along with	• Swimmer works effectively with teammates they like and those they do not like or get along with	
ROMANTIC OR SEXUAL RELATIONSHIPS	• Not applicable	• While not applicable, swimmer knows their body will undergo changes associated with puberty • Swimmer begins to learn about anatomy and basics of reproduction	• Swimmer knows the purpose of and how to use contraception and adopts safe sex choices • Swimmer develops personal ethical guidelines for sexual activity • Swimmer develops interpersonal skills and understands consent with respect to romantic or sexual relationships	• Swimmer integrates sport demands with the need to build a trusting long-term romantic or sexual relationship	
COMMUNICATION	• Swimmer demonstrates verbal etiquette to foster better communication (e.g. please, thank you, excuse me, etc.)	• Swimmer demonstrates non-verbal etiquette to foster better communication (e.g. looking and leaning, etc.)	• Swimmer demonstrates proper etiquette when communicating electronically	• Swimmer evaluates the verbal and nonverbal cues from others to create differentiated communication plans	

LIFE SKILLS

LTAD STAGE	FUNDAMENTALS (FUN)	LEARN TO TRAIN (L2T)	TRAIN TO TRAIN (T2T)	TRAIN TO COMPETE (T2C)	TRAIN TO WIN (T2W)
AGE OR STAGE	FEMALE 5-8 MALE 6-9	FEMALE 8 – ONSET OF PUBERTY MALE 9-ONSET OF PUBERTY	PERIOD OF PUBERTY FEMALE AND MALE	PODIUM PATHWAY COMPETITIVE FOR LIFE	PODIUM PATHWAY COMPETITIVE FOR LIFE
SOCIAL ENGAGEMENT	• Swimmer identifies opportunities for social participation at the pool, home, school, and in the community (e.g. family meal time, free play, extracurricular activities, diverse peer groups, etc.)	• Swimmer analyzes social situations at the pool, home, school, and in the community (e.g. family meal time, free play, extracurricular activities, dances, diverse peer groups, etc.)	• Swimmer demonstrates appropriate responses to social situations at the pool, home, school, and in the community (e.g. family meal time, free play, extracurricular activities, dances, diverse peer groups, volunteering, etc.)	• Swimmer evaluates personal engagement in social situations at the pool, home, school, and in the community and creates a plan for personal growth that aligns with their goals and wellbeing	
OVERALL RELATIONSHIP BUILDING	• Swimmer describes approaches for making and keeping friends	• Swimmer recognizes and responds to social cues in a manner that builds and maintains healthy relationships • Swimmer demonstrates behaviours such as sharing and developing trust and camaraderie	• Swimmer explains an approach to limit setting (e.g. ACT; Acknowledge feelings, Communicate the limit, Target alternative) • Swimmer demonstrates empathy and compassion	• Swimmer demonstrates a variety of strategies for collaborating with peers, adults, and others in the community • Swimmer shows awareness for the feelings, needs, and interests of others	
TEAMWORK	• Swimmer develops appropriate strategies for receiving feedback from others for self-improvement and to promote group cohesion • Swimmer contributes to the environment of providing and supporting for each other • Swimmer knows that swimming is usually an individual sport yet is also part of a team with responsibility to other team members and the training or performance environment	• Swimmer demonstrates appropriate strategies for providing and receiving feedback to promote group cohesion • Swimmer knows and respects senior team/club members • Swimmer articulates clear expectations of behaviour by team and team members • Swimmer wears team or club uniform worn with respect and pride	• Swimmer demonstrates cooperation and teamwork to promote group cohesion and identified team goals • Swimmer assists teammates when necessary • Swimmer demonstrates care and respect of their membership on the team • Swimmer helps all members feel included in team activities	• Swimmer applies appropriate limit setting strategies (e.g. ACT; Acknowledge Feelings, Communicate the limit, Target alternative) • Swimmer actively builds team cohesion in and out of the pool • Swimmer is supportive of team members and speaks respectfully to them and about their performances • Swimmer acts proactively, directly, and with appropriate strategies when they are experiencing negative attitudes or behaviours of others • Swimmer demonstrates care and respect of their membership on Team Canada	

LIFE SKILLS

LTAD STAGE	FUNDAMENTALS (FUN)	LEARN TO TRAIN (L2T)	TRAIN TO TRAIN (T2T)	TRAIN TO COMPETE (T2C)	TRAIN TO WIN (T2W)
AGE OR STAGE	FEMALE 5-8 MALE 6-9	FEMALE 8 – ONSET OF PUBERTY MALE 9-ONSET OF PUBERTY	PERIOD OF PUBERTY FEMALE AND MALE	PODIUM PATHWAY COMPETITIVE FOR LIFE	PODIUM PATHWAY COMPETITIVE FOR LIFE
CAREER IN SPORT AND ROLE TRANSITION – Understanding the different roles and responsibilities that athletes assume while participating; develop appropriate career planning and preparation skills while involved in swimming and preparing for transitions during and beyond this career.					
CAREER PLANNING	• While not directly applicable, swimmer discusses different roles that can be assumed and career options that may emerge	• Swimmer begins to verbalize a wide range of future career options – may be supported by role play • Swimmer explores requirements and necessary preparation for different roles and careers	• Swimmer integrates education with sport goals – first experience of dual career (student-athlete) • Swimmer identifies and accepts opportunities to develop their mentoring and leadership skills	• Swimmer identifies swimming career as primary focus while continuing to integrate other roles and responsibilities (academic, personal relationships, financial, parenthood, other) • Swimmer accesses appropriate support mentors, coaches, support staff, IST, peers or others • Swimmer plans and accepts support for swimming career to be primary goal knowing other roles and responsibilities are being cared for	• Swimmer creates and activates plans for transition from high performance career into other pre-defined careers and roles within and outside of sport
MENTORSHIP	• Swimmer identifies individuals who portray likeable and admirable attributes • Swimmer begins to build relationships in which they ask for advice, information, guidance, support, or opportunity	• Swimmer identifies key relationships that provide them with advice, information, guidance, support, or opportunity • Swimmer becomes aware of younger swimmers that might like to be provided advice, information, guidance, support, or opportunity • Swimmer recognizes their contributions and influence on younger swimmers		• Swimmer continues to learn from more experienced team members, coaches, or officials and actively seeks their advice, information, guidance, support, or opportunity when necessary • Swimmer provides advice, information, guidance, support, or opportunity when asked and is agreeable to both parties	• Swimmer refines their ability to ask for advice, information, guidance, support, or opportunity • Swimmer continues to mentor other team members
ROLE TRANSITION	• Swimmer describes role and responsibilities associated with swimming • Swimmer accepts changing responsibilities associated with swimming		• Swimmer describes favourable and unexpected outcomes associated with a high performance swimming career due to response to training, level of interest, durability and injury, financial support, academic desires, relationship or family responsibilities among others		• Swimmer discusses transition within swimming career with ease • Swimmer identifies “what’s next” following their high performance career

LIFE SKILLS

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AGE OR STAGE	FEMALE 5-8 MALE 6-9	FEMALE 8 – ONSET OF PUBERTY MALE 9-ONSET OF PUBERTY	PERIOD OF PUBERTY FEMALE AND MALE	PODIUM PATHWAY COMPETITIVE FOR LIFE	PODIUM PATHWAY COMPETITIVE FOR LIFE
TRAVEL KNOWLEDGE AND SAFETY – Gain travel knowledge and independence; acquire knowledge to maintain positive physical health habits while preventing infection and illness; develop cultural awareness, appreciate cultural diversity and its influence on customs, habits, and behaviours.					
TRAVEL SKILLS	• Swimmer describes route to and from pool, school, and other familiar destinations • Swimmer helps to prepare own equipment and snacks for practice, games, and competition	• Swimmer takes responsibility for preparing and packing their own equipment and food as needed • Swimmer assists with planning for travel to distant training and competitions • Swimmer facilitates timely departures for practices and competitions	• Swimmer travels independently to training and domestic events • Swimmer travels responsibly and confidently with chaperon and team for domestic and international events • Swimmer develops and uses process (e.g., checklist) to ensure they have packed all that has been asked of them and what they know they need for practice or competition • Swimmer demonstrates awareness and responsibility for acquiring necessary domestic or international travel documents, obtaining required vaccinations, and unexpected trip interruptions • Swimmer describes possible impact of and support for jet lag, alternative food choices, and diverse cultural experiences on their training and performance	• Swimmer travels responsibly and independently to international events • Swimmer assumes responsibility for valid travel documents and up-to-date vaccination or booster certificates – includes passport validation for at least 6 months beyond anticipated travel dates • Swimmer employs strategies to combat jet lag, alternative food choices, and diverse cultural experiences
VACCINATION & IMMUNIZATION	• Swimmers should be vaccinated in accordance with Provincial/National standards (exceptions to be supported by physician document)		• Swimmer complies with Government of Canada's Travel Vaccination recommendations for domestic and international travel • Swimmer ensures vaccinations are acquired in a timely fashion to meet travel deadlines	• Swimmer assumes responsibility for ensuring necessary domestic and international vaccinations are maintained and immunizations are up-to-date	

LIFE SKILLS

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AGE OR STAGE	FEMALE 5-8 MALE 6-9	FEMALE 8 – ONSET OF PUBERTY MALE 9-ONSET OF PUBERTY	PERIOD OF PUBERTY FEMALE AND MALE	PODIUM PATHWAY COMPETITIVE FOR LIFE	PODIUM PATHWAY COMPETITIVE FOR LIFE
INFECTION & ILLNESS PREVENTION	• Swimmer demonstrates appropriate personal hygiene including basic hand-washing • Swimmers with a disability ask for support and treatment of unnoticed or undetected areas of the body affected by a spinal cord injury		• Swimmer defines and lists communicable diseases • Swimmer develops personal skills to prevent and reduce the harmful effects of excess alcohol, risky sexual practices, use of illegal substances, or misuse of recreational or prescription drugs	• Swimmer assumes responsibility for ensuring necessary domestic and international vaccinations are maintained and immunizations are up-to-date • Swimmer employs safe sex practices	• Swimmer is aware of and prepared for alternative cultures that have different food or water choices that could cause gastro-intestinal or other performance-interfering symptoms
CULTURAL AWARENESS	• Swimmer displays curiosity about diverse cultures		• Swimmer respects and appreciates diverse cultures • Swimmer acquires knowledge about diverse cultures in places outside of Canada	• Swimmer describes cultural norms of host countries they travel to for training and competition • Swimmer identifies needed changes or adjustments to routine so that difficulties or challenges are avoided	
MEDIA – Learn about social media formats and their influence on athlete development and performance; learning how to positively engage the media.					
SOCIAL MEDIA EDUCATION	• Swimmer discusses the positive and negative aspects of social media use (pool, school, family, friends, community) • Swimmer discusses the positive and negative impact of screen time • Swimmer describes different types of social media • Swimmer describes the time spent with screens (i.e., mobile, computer, TV, other)	• Swimmer demonstrates appropriate social media etiquette – including posts or comments about sexual orientation, race, faith or other similar areas • Swimmer identifies elements of Swimming Canada's Safe Sport program (bullying, harassment, social media, etc.) • Swimmer contributes to club protocols, expected behaviours and outcomes associated with actions contrary to the Safe Sport program	• Swimmer participates in social media with respect and responsibility, including emails, tweets, Facebook posts, Instagram, and other social media formats • Swimmer develops and displays social medial skills to build support and positive media presence • Swimmer describes the effect of domestic and international success on social media presence	• Swimmer continues to participate in social media with respect and responsibility as domestic and international success is achieved • Swimmer asks for support around negative posts • Swimmer describes expected social media conduct as outlined by sponsor and those funding the sport • Swimmer knows social media policies from club, team, Swimming Canada, and FINA • Swimmer is aware of copyright or trademark issues of name, nicknames, distinguishing images, and quotes for later commercial use	• Swimmer, with support from Swimming Canada, monitors social media for inappropriate use of swimmer's photo, name, words and actions and responds accordingly • Swimmer, with support from Swimming Canada, develops "boilerplate" responses to emails and tweets about controversial issues
ELECTRONIC COMMUNICATION ENGAGEMENT	• Swimmer learns to communicate through electronic devices with appropriate language and messaging	• Swimmer contributes to development of club rules for appropriate use of electronic communication during training, competitions, and travel	• Swimmer models appropriate use of electronic communication during training, competitions, and travel	• Swimmer collaborates with team members and IST to develop and implement electronic communication guidelines for team travel – including times of use, time zone adjustments, and other areas that might impact performance, sleep and recovery	

LIFE SKILLS

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AGE OR STAGE	**FEMALE 5-8 MALE 6-9**	**FEMALE 8 – ONSET OF PUBERTY MALE 9-ONSET OF PUBERTY**	**PERIOD OF PUBERTY FEMALE AND MALE**	**PODIUM PATHWAY COMPETITIVE FOR LIFE**	**PODIUM PATHWAY COMPETITIVE FOR LIFE**
MEDIA ENGAGEMENT	• Swimmer identifies media stories or personalities that display likeable attributes	• Swimmer participates in role-play interviews during and after training or local events	• Swimmer continues to develop interview skill during and after training or local events • Swimmer develops statements for expected and unexpected questions (wins, losses, injury, personal performances, relationships, behaviours outside of swimming, other situations) • Swimmer practices interview exchange with Swimming Canada's media department	• Swimmer develops working relationships with local media • Swimmer continues to practice interview exchange with Swimming Canada's media department following training and competition • Swimmer anticipates and refines statements for expected and unexpected questions (wins, losses, injury, personal performances, relationships, behaviours outside of swimming, other situations)	• Swimmer cultivates positive working relationships with local, national, and international media and being available for comments • Swimmer develops well-articulated positions on major issues within swimming and sport in general (e.g., doping, safety, role transition) • Swimmer develops and practices response for declining to answer a question
NUTRITION/HYDRATION – Familiarization with the energetic and metabolic demands of training, competition and recovery; develop positive fueling practices to maximize adaptations to training and to support positive performance gains.					
NUTRITION BASICS	• While parents control provision of food, swimmer identifies healthy choices • Swimmer practices basic food safety and hygiene	• Swimmer brings a variety of healthy foods and fluids for each swim practice and competition • Swimmer identifies healthy choices • Swimmer knows their preferences and begins to plan positive fueling habits • Swimmer identifies unhealthy or unwise food and beverage choices • Swimmer continue to practice food safety and hygiene	• Swimmer monitors basic growth and development to support wise food choices for training, competition, and recovery • Swimmer identifies symptoms or conditions associated with unwise food and fluid choices (examples include poor sleep, prolonged recovery from illness or infection, unexplained drop in performance or response to training, nagging injury, absent menstrual cycle in girls) • Swimmer develops best-fuelling habits to support training, competition, and recovery • Swimmer questions the effectiveness and legality of supplements or non-food substances designed to improve performance and health • Swimmer participates in meal planning, grocery shopping and meal preparation at home • Swimmers ask for help with food choices when necessary	• Swimmer monitors and adjusts their fuelling practices to ensure optimal support for training adaptations, taper, race preparation, and recovery • Swimmer, with support from IST, engages in ongoing nutritional education regarding best practices for their progression as a competitor • Swimmer independently creates meal plans, grocery shops, and prepares meals at home • Swimmer identifies all supplements and non-food substances they introduce to their body • Swimmer employs continuous food safety and hygiene, particularly when travelling domestically and internationally	

LIFE SKILLS

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AGE OR STAGE	FEMALE 5-8 MALE 6-9	FEMALE 8 – ONSET OF PUBERTY MALE 9-ONSET OF PUBERTY	PERIOD OF PUBERTY FEMALE AND MALE	PODIUM PATHWAY COMPETITIVE FOR LIFE	PODIUM PATHWAY COMPETITIVE FOR LIFE
COMPETITION NUTRITION	• While parents control provision of food, swimmer identifies healthy choices for preparing for competition	• Swimmer employs proper timing and selection of food and fluid intake before competition	• Swimmer plans for and implements proper timing and selection of food and fluids before competition • Swimmer modifies fuel intake to adjust for unexpected changes to schedule, impact of results, or other distraction • Swimmer practices and records different fuelling strategies to determine what works well for them when under pressure	• Swimmer is confident in their competition nutrition planning and implementation • Swimmer employs optimum strategy for variety of demands associated with competition • Swimmers reflect and modify nutrition planning following competition as needed • Swimmer anticipates and prepares for available food choices when travelling to different domestic and international locations. • Swimmer adopts optimal nutritional plan to support competition demands and performance expectations • Swimmer is vigilant about food safety and hygiene, particularly during travel • Swimmer with moderate to severe impairment may require external support to ensure optimal consumption	
NUTRITION FOR RECOVERY	• While parents control provision of food, swimmer identifies healthy choices for recovery from training and competition. • Swimmer employs proper timing and selection of food and fluid intake after training and competition		• Swimmer describes impact of training and competition on body and mind and the need for suitable nutritional recovery support • Swimmer identifies appropriate timing and selection of food and fluid to maximize recover from training or competition	• Swimmer employs a tested and trialed nutritional recovery plan for training and competition • Swimmer modifies nutritional recovery plan as needed to adjust to travel demands, competition schedule, or other goals associated with performance	
HYDRATION	• While parents control provision of food and fluids, swimmer identifies healthy hydration choices • Swimmer employs proper timing and selection of fluid intake after training and competition	• Swimmer is responsible for wise fluid choices – this includes type and timing of fluid • Swimmer describes differences and suitability of fluid choices – knowing difference between water, energy drinks, caffeine, alcohol	• Swimmer employs hydration monitoring techniques through monitoring urine colour or other IST-approved method • Swimmer adjusts hydration habits to support training, competition, and recovery	• Swimmer is confident in monitoring hydration status - using validated and IST-approved methods • Swimmer anticipates and adjusts hydration habits to support optimal performance to account for changing environmental conditions	

LIFE SKILLS

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AGE OR STAGE	FEMALE 5-8 MALE 6-9	FEMALE 8 – ONSET OF PUBERTY MALE 9-ONSET OF PUBERTY	PERIOD OF PUBERTY FEMALE AND MALE	PODIUM PATHWAY COMPETITIVE FOR LIFE	PODIUM PATHWAY COMPETITIVE FOR LIFE
NUTRITION SUPPLEMENTS	• Swimmer describes the use of supplements as a strategy to improve performance and wellbeing	• Swimmer knows that supplement use is not recommended or appropriate unless medically demonstrated deficit • Swimmer identifies suitable exceptions to supplement use such as Vitamin D (during winter months) and iron supplementation (menstruating females)	• Swimmers know the risks and consequences associated with supplement use, their unregulated ingredients, and inadvertent consumption of banned substances • Swimmers ask IST for support in decisions around supplement use	• Swimmer knows the risks of a doping infraction with use of supplements • Swimmer knows the current Canadian Anti-Doping Program (CADP) and World Anti-Doping Agency (WADA) codes • Swimmer has completed the CCES anti-doping program • Swimmer is responsible for the decisions they make regarding supplement use • Swimmer, with the support from IST, uses evidence-based, individualized, health training and competition supplement plan that has been well trialed and is well tolerated (See for example: www.ausport.gov.au/ais/nutrition/supplements)	
OTHER ISSUES – Acquire knowledge about anti-doping rules and regulations, doping control practices; for athletes with an impairment, learn the classification and eligibility rules for participation.					
DOPING CONTROL	• Swimmer describes different forms of cheating and fairness in sport	• Swimmer is familiar with anti-doping practices and their contribution to “Fair Play”	• Swimmer knows the obligations and rights associated with doping control procedures for all competitions • Swimmer reports all prescription and non-prescription drug use to appropriate medical team to ensure compliance with Canadian Centre for Ethics in Sport (CCES) regulations • If necessary, swimmer completes and submits the Therapeutic Use Exemption (TUE)	• Swimmer knows the obligations and rights associated with doping control procedures for in and out of competition testing • Swimmer complies with all anti-doping requirements, at the same time vigorously defending their own and teammates’ rights • Swimmer does NOT sign off on improperly collected samples	
CLASSIFICATION (ATHLETES WITH AN IMPAIRMENT ONLY)	• Swimmer develops awareness of potential classification and eligibility to compete in swimming at Paralympics	• Swimmer obtains temporary classification for swimming	• Swimmer obtains permanent classification for swimming	• Swimmer is fully aware of classification criteria and alerts coaching staff to potential miss-classification of self or opponents	

PHYSICAL CAPACITY DEVELOPMENT

CONSIDERATIONS FOR THE COACH

Coaches working with young athletes should consider the following within their programs:

- Measure and monitor the key reference points of growth from the onset of the growth spurt to adulthood for each athlete;
- Note biological markers to help with the decision-making process;
- Respond to biological marker data by monitoring and adjusting training programs according to the tempo of athletes' growth;
- Design an appropriate program for each athlete that takes advantage of the windows of trainability. Each program should be based on individual and sport-specific needs;
- Keep in mind that stamina, strength, speed, skill, and suppleness are always trainable; however, the rate of improvement is influenced by the sensitive periods of trainability and maturation levels;
- Remember that two windows of trainability are based on chronological age: speed and suppleness (all research is based on chronological age);
- Keep in mind that three windows are based on the athlete's tempo of growth and biological maturity: stamina, strength, and skill;
- To monitor growth, use these biological markers: the onset of the growth spurt, peak of growth (after the peak growth decelerates), and the onset of menarche.

POSTURE CONSIDERATIONS

The goal of any swim coach, and/or support specialist is to optimize the movement ability of a swimmer through the water. A wide range of techniques are employed to help achieve this primary goal - resistance training to encourage strength development, speed training to target acceleration, and flexibility programs to enhance range of motion (ROM).

Perhaps most importantly when attempting to improve swimming performance is the positioning of the musculo-skeletal-fascial system that has greatest significance and impact on movement. In terms of developing physical capacity, specifically in relation to a swimmer's movement through the water, posture is key. There is a 'definite correlative nature' between posture and optimum movement of the body through the water. Whenever a swimmer performs an action from a position that is less than ideal, there is a clear and observable decrease in stroke efficiency and an associated increase in stress on certain structures of the body.

Typically, postural dysfunctions do not improve without direct intervention. If not addressed, postural dysfunctions are likely to worsen as compromised (pattern overload) and compensatory (synergist dominance) movement patterns become ingrained in the swimmer. This 'cause & effect' relationship is often a major contributor to decreased performance and increased pain.

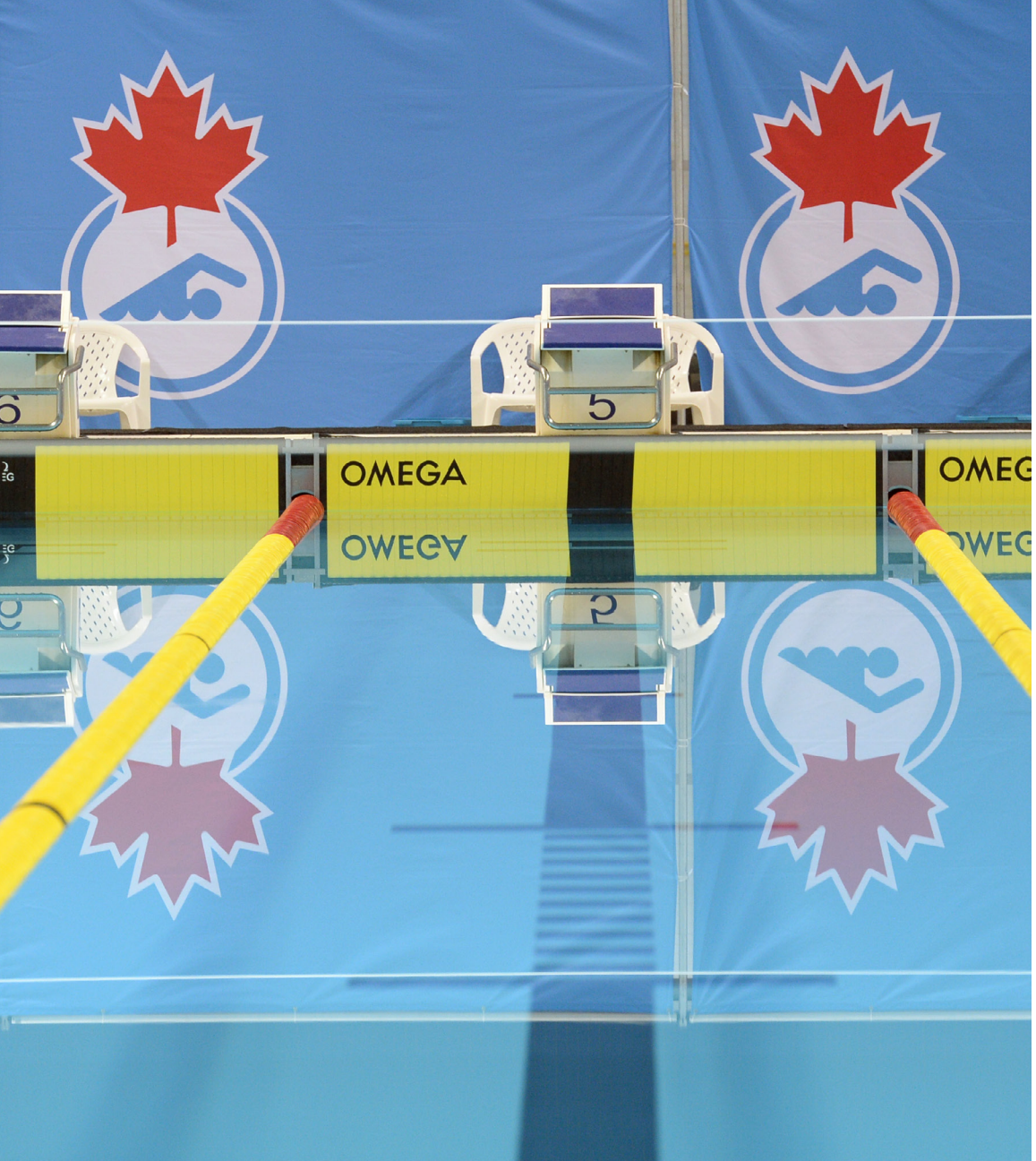
It is imperative, therefore, that postural alterations be discovered (through a detailed postural assessment) and treated at the earliest opportunity - particularly, prior to initiating any strengthening or sports conditioning program. By recognizing and correcting deficiencies or dysfunction, the process of re-establishing normal motor patterns can begin.

Focusing on the correct positioning of the kinetic chain is the first stage of this - and key to remedying movement patterns. Beyond that, a corrective program incorporating 'multi-planar movements', 'integrated movement patterns' and 'pro prioceptively enriched' activities should be established.

STRENGTH CONSIDERATIONS

The inclusion of strength and power training - as a component of swimming training - is an essential element in enhancing both health and performance, and the general development of all young swimmers. Once believed to be ineffective for developing strength in the young swimmer and unsafe due to a high risk of injury, it is now widely accepted that resistance training (including weightlifting training) improves strength, and strength related variables, throughout the levels on the LTAD framework. Evidence also shows that gains in strength can positively enhance skill-related variables in children and adolescents.

Successful strength and power training interventions must consider body type, age (chronological), stage of physical development (biological), sensitive periods of development, level of performance/ aptitude, and prior/current training status (training age).



Key Guidelines:

- All programs should be designed to ensure improvement occurs over a period of years and follow a series of specific stages (referred to as the developmental sequence) - general strength exercises (those that promote all-around athletic development), directed strength exercises (focusing on smaller muscle groups utilized in swimming), and special strength exercises (performed through same ROM, and at similar speed, to that required in swimming).
- Initial stages of training should incorporate elements of strength, speed, flexibility, coordination, dexterity, and relaxation - known as general physical preparation (GPP) activity. Research suggests 3 years of GPP is required prior to performing strength-specific exercises. Indeed, even in young swimmers (12-14 year olds) who choose to specialize in their sport, 80% of their total training time should consist of GPP activity. 14-17 year-olds should ensure 50% of training should consist of GPP activity while even 17-21 year-olds are recommended to commit around a third of training (35%) to this type of activity.
- Bodyweight should be used as resistance before adding external loads. In cases where bodyweight is too great a resistance to overcome, it is advisable to use assisted or adapted forms of basic exercises (inclined pushups, horizontal pull-ups, assisted squats, etc.).
- Strength development of the larger postural musculature (hips, back, upper leg, and core muscles) should be prioritized.
- Once good technique has been established in the young swimmer, repetitive methods should be used to help develop strength - “master the pattern first, then to make sure that it is consistent.”
- Concentric contractions should be prioritized over eccentric contractions in prepubescent swimmers. The optimal period to initiate eccentric loading would be during the Train to Train (T2T) stage of the LTAD framework (11-13-year-old girls, 13-15-year-old males).
- Always alternate the body part being exercised to avoid fatigue and to help maintain technique.
- Always emphasize technique and increase loads in small increments. Provide sufficient rest and recovery (for injury prevention and adaptation).

Prepubescent Strength Training – Learn to Train Stage of LTAD Model

- Initial training loads may extend from zero external loads to 50-60% 1 RM. Performance may be enhanced using loads as low as 20% of 1 RM.
- 2-3 training sessions per week (1-3 sets of 6-10 exercises).
- To progress, prepubescent swimmers should be able to perform two to three sets of fifteen repetitions for exercises in three consecutive training sessions before weight is increased.
- Increases in load should be as little as 0.5-1.5 kg. The general rule is to perform exercises with the minimal load required to produce a training effect.
- Typical activities may include sprinting, jumping, crawling, climbing, pushup variations, hanging, and pull-ups. Generally, strength exercises are performed more slowly and with more control than the specific speeds associated with swimming.
- Multi-joint exercises (squat variations and presses), and complex exercise variations, such as Olympic weightlifting, should be introduced individually (with very light weights) as each young swimmer demonstrates proficiency of technique.

Adolescent Strength Development – Train to Train, Train to Compete, and Train to Win Stages of the LTAD Model

- Goal of early adolescent training (T2T) is to continue building on the foundations of speed, strength, and endurance - in readiness for future sport specialization/specificity.
- Specialized strength training should make up around 20% of entire training program (emphasis on technique).
- Loads in the early adolescent stage of training are only slightly higher than those from the prepubescent period. May be progressed as swimmer demonstrates good technique and consistency of good technique.
- Strength training should be performed 2-3 times per week (alternate days - at least one day of recovery).
- As the adolescent stage progresses (T2C), evidence has shown that loads of 70% 1 RM will likely produce the greatest rate of development.
- Exercises should be performed 3 times per week - limited to one exercise per body part (3-4 sets/8-12 reps). Loads can be progressed when the young swimmer can perform sets of 12 reps with good technique in consecutive workouts.
- In the latter stages of the adolescent period (T2W), loads of 50-80% of 1 RM can be used - 3 times per week, 2 exercises per body part, 4-6 sets/10 reps. Loads can be increased when the swimmer can perform 4 sets/10 reps with good technique in consecutive workouts.
- Loads up to 90% 1 RM have been shown to produce the greatest rate of development in the squat and strength-speed type exercises (70% of 1 RM loads are ideal for increasing speed-strength).
- For 16-18 year-old swimmers, training at 90% of 1 RM should only be performed once per week, 1-2 reps per set (maximum 2 sets).
- As the swimmer progresses through the later stages of the LTAD framework, training programs can combine both general (high intensity) strength exercises and ‘directed’ strength training exercises - those that mimic more closely the dynamic components of swimming. These exercises can include explosive lifts and squats, in addition to various jumps and throws. Beyond this, special exercises that approximate the same speed, ROM, and temporal dynamics of swimming can be incorporated.

PHYSICAL CAPACITY

AAD STAGE	FUNDAMENTALS (FUN)	LEARN TO TRAIN (L2T)	TRAIN TO TRAIN (T2T)	TRAIN TO COMPETE (T2C)	TRAIN TO WIN (T2W)
AGE OR STAGE	FEMALE 5-8 MALE 6-9	FEMALE 8 – ONSET OF PUBERTY (~11) MALE 9 – ONSET OF PUBERTY (~12)	PERIOD OF PUBERTY FEMALE AND MALE	PODIUM PATHWAY COMPETITIVE FOR LIFE	PODIUM PATHWAY COMPETITIVE FOR LIFE
DEVELOPMENTAL AGE	• Congenital impairments will have a developmental age that is similar to non-neurological impairments • Congenital impairments that are neurological in nature will have a developmental age that is delayed based on years in sport • Acquired impairments will have a developmental age that is years from onset • Athletes with more than minimal impairment may have no correlation between chronological and developmental age • Assessing an athlete's appropriate LTAD Stage requires significant care and attention				
GROWTH & DEVELOPMENT CONSIDERATIONS	• Emphasis on development of skills • PSpV1 - 1st Speed Window – training the central nervous system (agility/quickness/segmental speed)	• Continued emphasis on skill development • Focus on repetition of skills towards mastery before onset of growth spurt • Peak time to develop motor coordination • Build endurance by improving economy of movement • Relative strength introduced (own body weight) • Strength gains occur through motor learning, improvements in motor coordination, and morphological and neurological adaptation • Prepubescent athletes cannot maintain strength gains with one session per microcycle, therefore training should take place two or three times per week (1-3 sets, 6-10 exercises), and should not exceed 30 minutes	• Emphasis and prioritization of aerobic system development during the growth spurt (PHV) • Onset of growth spurt indicates the body's readiness for accelerated adaptation to aerobic training • 1st Strength Window for females is immediately after Peak Height Velocity (PHV) • Peak Strength Velocity (PSV) for males is 12-18 months following PHV • PSpV2 - 2nd Speed Window (alactic) Note: The onset of the growth spurt until reaching peak height velocity is a critical window in development	• Individualization of physical training approach – based on post PHV assessment • 2nd Strength Window for females is at the onset of menarche • Peak Strength Velocity (PSV) for males is 12-18 months following PHV	• Improvement of physical capacities • (stamina, strength, speed, skill, and suppleness)
	• Growth in some impairments may cause an increase in the impairment, however the steps will not change (growth is not necessarily good for all)				

PHYSICAL CAPACITY

AAD STAGE	FUNDAMENTALS (FUN)	LEARN TO TRAIN (L2T)	TRAIN TO TRAIN (T2T)	TRAIN TO COMPETE (T2C)	TRAIN TO WIN (T2W)
AGE OR STAGE	**FEMALE 5-8 MALE 6-9**	**FEMALE 8 – ONSET OF PUBERTY (~11) MALE 9 – ONSET OF PUBERTY (~12)**	**PERIOD OF PUBERTY FEMALE AND MALE**	**PODIUM PATHWAY COMPETITIVE FOR LIFE**	**PODIUM PATHWAY COMPETITIVE FOR LIFE**
SUPPLENESS					
SUPPLENESS/ FLEXIBILITY	• Developed through active play with focus on basic movement & coordination activities (including some stretching/ reaching activities)	• Develop active range of motion through general activities (ROM) • Develop understanding and application of general static & dynamic stretching type activity (particularly AIS)	• Critical time to maintain & enhance ROM through dynamic mobility activity primarily (onset of growth spurt associated with increased muscle tightness). AIS advised. • Static stretching to be employed post activity	• Maintain ROM and develop sport-specific flexibility (focusing specifically around shoulder & hips) • Introduce 2-3 flexibility (AIS) sessions per week (+ yoga) and incorporate relevant dynamic/static stretching activity into pre-post pool workouts respectively • Monitoring & testing of mobility & flexibility (contra-lateral differences)	
	• Range of motion programs must be designed with clear understanding of the differences between an athlete's physical capacity and their limitations due to impairment				
		• Programming may need to address impairment related to medical interventions during this stage	• Programming may need to address impairment related to medical interventions during this stage		
STRENGTH					
STRENGTH & CONDITIONING	• Participation in active play, sport, and physical activity	• Medicine ball, Swiss ball, and own body exercises for strength • Participation in complimentary sports (similar energy system and movement patterns)	• Emphasis on aerobic conditioning • Participation in complimentary sports (similar energy system and movement patterns)	• Sport and individual specific physical conditioning	• All aspects of training individualized
	• Physical literacy • Addition of activities that include the body and limbs being extended while doing the activity. (Athletes are often in a flexed position in their daily living environment and need to work on strength and flexibility in extension) • Development of posture advantages for sport and physical well- being	• Physical literacy • Proper postural development • Development of posture advantages for sport and physical well-being	• Proper postural development • Development of posture advantages for sport and physical well-being	• Proper postural development • Development of posture advantages for sport and physical well-being	• Proper postural development • Development of posture advantages for sport and physical well-being
	• Range of motion programs must be designed with clear understanding of the differences between an athlete's developed physical capacity and their limitations due to impairment				
		• Programming may need to address impairment related to medical interventions during this stage	• Programming may need to address impairment related to medical interventions during this stage		

PHYSICAL CAPACITY

AAD STAGE	FUNDAMENTALS (FUN)	LEARN TO TRAIN (L2T)	TRAIN TO TRAIN (T2T)	TRAIN TO COMPETE (T2C)	TRAIN TO WIN (T2W)
AGE OR STAGE	FEMALE 5-8 MALE 6-9	FEMALE 8 – ONSET OF PUBERTY (~11) MALE 9 – ONSET OF PUBERTY (~12)	PERIOD OF PUBERTY FEMALE AND MALE	PODIUM PATHWAY COMPETITIVE FOR LIFE	PODIUM PATHWAY COMPETITIVE FOR LIFE
USING BODY WEIGHT	• Informally developed through play and habits of activity, particularly climbing and hanging activities	• Introduce activities/drills in which body weight is supported by arms and legs • Encourage explosive pushes (burpees)	• Systematic activities that stress arms, legs, and trunk • Increase duration of static exercises and repetitions of dynamic exercises • Incorporate plyometrics	• Focus on explosive movements that simulate sport/event requirements • Alter body composition as appropriate to facilitate forward propulsion while minimizing drag whereby ideal physique is highly individual. Each swimmer will have a desirable weight range where they maintain good health while training and performing well • High intensity plyometrics	
	• Creative use of fractional body weight, particularly for athletes with asymmetry	• Creative use of fractional body weight, particularly for athletes with asymmetry	• Creative use of fractional body weight particularly for athletes with asymmetry		
MAXIMUM STRENGTH	• Any strength activity should focus on developing excellent technique • Focus on even and all-around development	• Introduce systematic resistance training with focus on using body weight, and on excellent technique • Introduce measurement and record keeping	• Systematic evaluation based resistance training with higher weights and lower repetitions • Focus on technique before peak height velocity, on increased weight (with good technique) after PHV • Greater sport specificity of exercises near end of stage	• Maintain individualized all-round strength development, with increasing focus on sport-specific movement patterns • Rigorous individualized testing, exercise prescription, and performance monitoring to meet or exceed world class standards • Focus on strength gains during off-season with maintenance during on-season	
STRENGTH ENDURANCE	• Developed through active play with focus on weight bearing activities	• Introduce resistance training with good technique; use of medicine and stability ball encouraged • Introduce record keeping and ongoing testing and evaluation • Introduce resistance training with good technique: maintain functional balance and best coordination	• Systematic test—based resistance training with lower weights and higher repetitions towards the end of the growth spurt • Focus on technique and increasing the number of reps • Greater sport specificity of exercises near end of stage	• Maintain individualized all-round strength endurance development with increasing focus on sport-specific movement patterns, lower weights and higher repetitions • Rigorous individualized testing, exercise prescription, and monitoring to meet or exceed world class standards	
CORE STRENGTH	• Developed through active play with focus on weight bearing activities	• Introduce deep core breathing/activation & core strength activities, stressing good technique	• Develop systematic deep core breathing/activation & core strength training based on individual assessment • Introduce self-monitoring and personal record keeping	• Maintain systematic deep core breathing/activation & core strength training based on rigorous testing, exercise prescription, and monitoring to meet or exceed world class standards • Reinforce self-monitoring and personal record keeping	
	• Recruitment of core strength can be developed through practice of floating and rotation skills	• Floating, and movement while floating (i.e., rotating on axis front to back while floating)	• Optimal core strength should prioritize best performance, not best symmetry		

PHYSICAL CAPACITY

AAD STAGE	FUNDAMENTALS (FUN)	LEARN TO TRAIN (L2T)	TRAIN TO TRAIN (T2T)	TRAIN TO COMPETE (T2C)	TRAIN TO WIN (T2W)
AGE OR STAGE	**FEMALE 5-8 MALE 6-9**	**FEMALE 8 – ONSET OF PUBERTY (~11) MALE 9 – ONSET OF PUBERTY (~12)**	**PERIOD OF PUBERTY FEMALE AND MALE**	**PODIUM PATHWAY COMPETITIVE FOR LIFE**	**PODIUM PATHWAY COMPETITIVE FOR LIFE**
POWER	• Developed through active play with focus on explosive activities with many changes in direction or level (low, medium, high)	• Introduce power activities using body weight • Stress good technique and speed of movement • Introduce hopping and bounding activities	• Develop systematic power training based on individual assessment and demands of sport • Focus on speed before PHV and strength plus speed after • Introduce plyometrics • Introduce self-monitoring and personal record keeping	• Maintain systematic power training based on demands of the sport rigorous testing, exercise prescription, and monitoring to meet or exceed world class standards • Reinforce self-monitoring and personal record keeping	
STAMINA (ENDURANCE)					
AEROBIC CAPACITY	• Informally developed through play and habits of regular activity	• Extending duration of activity at elevated heart rate in a variety of different activities	• Exercise at targeted heart rate for timed duration. Long-slow distance to higher intensity intermittent workouts related to demands of sport • Key differences between weight bearing and non-weight bearing sports	• Individualized training of aerobic capacity based on systematic testing of athletes • Focus on workout using predominantly same muscle groups as in the sport	• Individualized training based on test results and competition demands • Focus on optimization of aerobic capacity and peaking for important events
	• Athletes with more than minimal physical impairment may already have elevated aerobic demands through activities of daily living				
AEROBIC POWER	• Developed through play		• Interval training introduced towards the end of this stage	• Interval training of increasing intensity • Increasing focus on sport, or event specificity of exercise	
ANAEROBIC LACTIC CAPACITY	• Developed through play		• Progressive increase in duration (up to 2 minutes) of high intensity exercise – with sufficient rest between sets	• Progressive increase in duration of high intensity exercise – with sufficient rest between events • Increasing specificity of exercise to sport • Individualized training based on systematic testing and evaluation	
ANAEROBIC LACTIC POWER	• Developed through play		• Focus on exercise intensity with longer rest between sets	• Focus on exercise intensity with longer rest between sets • Increasing sport specificity • Individualized training based on systematic testing and evaluation	
SPEED					
SEGMENT SPEED	• Developed through active play	• Period of maximum focus on segment speed; arm/hand speed, foot/leg speed	• Maintain segment speed as appropriate to the athlete and sport		

PHYSICAL CAPACITY

AAD STAGE	FUNDAMENTALS (FUN)	LEARN TO TRAIN (L2T)	TRAIN TO TRAIN (T2T)	TRAIN TO COMPETE (T2C)	TRAIN TO WIN (T2W)
AGE OR STAGE	**FEMALE 5-8 MALE 6-9**	**FEMALE 8 – ONSET OF PUBERTY (~11) MALE 9 – ONSET OF PUBERTY (~12)**	**PERIOD OF PUBERTY FEMALE AND MALE**	**PODIUM PATHWAY COMPETITIVE FOR LIFE**	**PODIUM PATHWAY COMPETITIVE FOR LIFE**
WHOLE BODY SPEED	• Developed through active play		• Focus on linear and lateral speed for males throughout this stage and for females after PHV	• Maintain whole body linear and lateral speed as appropriate to the athlete and the sport	
ANAEROBIC ALACTIC CAPACITY [AAC]	• Developed through active play, with focus on high intensity and very short duration bursts of speed	• Multiple bursts of 15-20 second activity towards the end of warm-up	• Evaluation and monitoring of anaerobic alactic capacity • Specific training of short duration, very high intensity (under 10-15 seconds) activity with adequate rest between sets	• Systematic test-based, individualized anaerobic alactic training and monitoring of progress • Focus on full recovery between exercise bouts • Increase sport specificity of exercises	• Systematic test-based, individualized anaerobic alactic training and monitoring of progress against world class performance levels • Predominantly sport-specific exercises and management of training to peak at major events
ANAEROBIC ALACTIC POWER [AAP]	• Developed through active play with a focus on high intensity very short duration bursts of speed	• Multiple bursts of 5-10 second activity during warm-up	• Specific training of short duration, very high intensity (under 10-15 seconds) activity with adequate rest between bouts • As training progresses, duration of exercise decreased and intensity increased	• Systematic test-based, individualized, anaerobic alactic power training and monitoring of progress • As training progresses, intensity of exercise is maximized and duration of maximum exertion increased	
	• All of the activities used to develop AAC/ AAP are constrained by development of coordination reliability. Activities of daily living may significantly impact the ability of developing AAC/AAP.				
NUTRITION AND HYDRATION					
NUTRITION BASICS	• Parents control nutrition and are responsible for the foods made available, but not responsible for what the children eat. • Parents should be encouraged to provide both healthy meals and healthy snacks so that children associate healthy snacks with activities. • Children learn basic kitchen safety and hygiene	• Provide a variety of healthy snacks at the end of each swim practice/game • Teach basic nutrition / food groups • Encourage fruit and vegetable consumption • Do NOT encourage sport drink and performance supplement use • Continue to encourage food hygiene and hand washing	• Educate swimmers and parents about the nutrition needs for teen athletes and the importance of being adjusted (in particular carbohydrates and energy) with the demands of training and/or competition • Educate about the need for high quality food based protein sources to be eaten at all meals and snacks • Encourage athletes to become more involved in meal preparation at home • Encourage adequate iron intake for all athletes, but in particular for female athletes • Athletes keep basic food consumption log	• Monitor and adjust as needed a swimmer's daily training nutrition planning and implementation to ensure optimum strategies for the demands of the training (rest days, taper, endurance, race preparation) • Ongoing education regarding nutrition periodization adjusted for the nutrition needs specific to each training session – in particular carbohydrates and energy adjustments according to fluctuations in training to prevent energy and carbohydrate mismatch and low energy availability • Ensure female athletes are regularly menstruating • Athletes continue to be involved in meal preparation at home • Continue to encourage adequate iron intake for all athletes, but in particular for female athletes • Continue to encourage food hygiene and handwashing in particular in preparation for travel/competition	

PHYSICAL CAPACITY

AAD STAGE	FUNDAMENTALS (FUN)	LEARN TO TRAIN (L2T)	TRAIN TO TRAIN (T2T)	TRAIN TO COMPETE (T2C)	TRAIN TO WIN (T2W)
AGE OR STAGE	FEMALE 5-8 MALE 6-9	FEMALE 8 – ONSET OF PUBERTY (~11) MALE 9 – ONSET OF PUBERTY (~12)	PERIOD OF PUBERTY FEMALE AND MALE	PODIUM PATHWAY COMPETITIVE FOR LIFE	PODIUM PATHWAY COMPETITIVE FOR LIFE
COMPETITION NUTRITION	• Encourage parents to feed and provide fluids (good nutrition) as the swimmer tolerates before (1-3 hours) and immediately after physical activity	• Encourage children to eat and drink (good nutrition) as the swimmer tolerates before (one to three hours) and immediately after physical activity • Easy to digest top up nutrition may be needed in the hour before racing	• Equip swimmers with a plan for adequate nutrition prior to and during competition, especially for competitions that last over an extended period of time • Ensure swimmers understand the practical issues associated with the competition environment, including the need for lowered food intakes in the taper, as well as risks of boredom or excitement eating or poor appetite due to race anxiety • Trial and record nutritional strategies to determine what works well for them • Ensure that swimmers are adequately fueled for competition and can manage gastrointestinal (GI) tolerance	• Monitor swimmer's competition nutrition planning and implementation to determine optimum strategy for both short duration (events) and longer duration (multi-day competitions). Trial until the swimmer is 100% confident in his/her race nutrition plan (adjust depending on the competition schedule). • Swimmers have well trialed strategies in place for travel nutrition developed with support from a Sport Dietitian, if required • Investigates what staple foods are available at target destinations, and if necessary, arrange for required foods to be shipped to sites of international competitions • Ensure swimmers understand the practical issues associated with the competition environment, including the need for lowered food intakes in the taper, as well as risks of boredom or excitement eating or poor appetite due to race anxiety • Ensure swimmers are particularly conscientious of food hygiene and handwashing during travel and competition • Works with Integrated Support Team (IST) dietitian • Athletes with moderate to severe impairment may require external support to ensure optimal consumption	
NUTRITION FOR RECOVERY	• Encourage high quality meals or snacks at the end of physical activity. • Focus should be on carbohydrates, proteins, colourful vegetables, and fruits		• Introduce concept of recovery nutrition post-training or competition • Focus on timing of meals/snacks around training and competition, and goals for nutrient composition of each meal/snack	• All athletes have a well tested and trialed nutrition recovery plan which they adjust depending on individual energy needs, body composition goals, as well as the demands of travel, training, and competition • Works with Integrated Support Team (IST) dietitian	
HYDRATION	• Ensure that children engaged in physical activity are adequately hydrated	• Ensure adequate hydration for athletes by encouraging sipping water throughout the day and with meals and snacks • Introduce basic hydration concepts • Teach importance of appropriate fluid choices (i.e., sports and energy drinks unnecessary vs. water which is, etc.)	• Introduce hydration monitoring techniques through monitoring urine colour (lemonade-coloured urine)	• Swimmers are confident in monitoring hydration status - using USG, pre- and post-weight changes, and measured fluid consumption • Well tested hydration plan for training and competition in place with athlete's ability to quickly adjust hydration for optimal performance and account for changing environmental conditions • Works with Integrated Support Team (IST) dietitian	

PHYSICAL CAPACITY

AAD STAGE	FUNDAMENTALS (FUN)	LEARN TO TRAIN (L2T)	TRAIN TO TRAIN (T2T)	TRAIN TO COMPETE (T2C)	TRAIN TO WIN (T2W)
AGE OR STAGE	**FEMALE 5-8 MALE 6-9**	**FEMALE 8 – ONSET OF PUBERTY (~11) MALE 9 – ONSET OF PUBERTY (~12)**	**PERIOD OF PUBERTY FEMALE AND MALE**	**PODIUM PATHWAY COMPETITIVE FOR LIFE**	**PODIUM PATHWAY COMPETITIVE FOR LIFE**
NUTRITION SUPPLEMENTS	• Supplements not appropriate unless health supplements prescribed to combat known medical condition. The exception is Vitamin D – required throughout the lifespan during the months of October to May	• Supplements not appropriate unless health supplements prescribed to combat known medical condition. The exception is Vitamin D – required throughout the lifespan during the months of October to May	• Teach swimmers that supplements are not a shortcut to performance • Educate on dangers of inadvertent doping through use of unapproved supplements, and in particular the risks associated with high risk sports supplements and supplemental contamination	• Swimmers understand the risks of a doping infraction with use of untested supplements, and that even with tested supplements there is never a 100% guarantee a supplement will be free of banned substances • Swimmers are educated on Canadian Anti-Doping Program (CADP) and World Anti-Doping Agency (WADA) codes and have completed the CCES anti-doping program • Understand that they are strictly liable • Uses only an evidence-based, individualized, health, training, and competition supplement plan that has been well trialed and is well tolerated • Link requires a password - (See for example: www.ausport.gov.au/ais/nutrition/supplements) • Works with Integrated Support Team (IST) in the selection and use of both health and performance supplements if they are used	
REST AND REGENERATION					
REST AND REGENERATION (Cold water immersion)	• Not applicable		• May be prescribed by IST on an individual basis		
REST AND REGENERATION (Compression)	• Not applicable		• Individualized response to use of compression garments with no known negative impact • Evidence for athlete perception of benefit, and therefore may be used at discretion of athlete	• Post-training rest and regeneration protocols individualized, and well-trialed under supervision of IST	

PHYSICAL CAPACITY

AAD STAGE	FUNDAMENTALS (FUN)	LEARN TO TRAIN (L2T)	TRAIN TO TRAIN (T2T)	TRAIN TO COMPETE (T2C)	TRAIN TO WIN (T2W)
AGE OR STAGE	FEMALE 5-8 MALE 6-9	FEMALE 8 – ONSET OF PUBERTY (~11) MALE 9 – ONSET OF PUBERTY (~12)	PERIOD OF PUBERTY FEMALE AND MALE	PODIUM PATHWAY COMPETITIVE FOR LIFE	PODIUM PATHWAY COMPETITIVE FOR LIFE
SLEEP RECOMMENDATIONS (CS4L document – Sleep, Recovery, and Human Performance)	**DURATION** • 10-11 + 30 minutes nap between 2-4pm **QUALITY** • Maintain a regular sleep/nap routine • Ensure a comfortable sleep environment • Establish independent sleep initiating behaviors • Observe sleep for sleep disorders **PHASE** • Establish a neutral sleep pattern between 9pm and 8am • Encourage predictable afternoon nap/rest • Establish reliable meal routines (breakfast is the most important meal of the day) **KEY POINTS** • Reinforce 15-30 minutes bedtime routine • Avoid stimulation 1-2 hours before bed, control “screen time” • Good nutrition and meal routines reinforce sleep routines	**DURATION** • 9.5-10 + 30 minutes nap between 2-4pm **QUALITY** • Maintain a regular sleep/nap routine • Ensure a comfortable sleep environment • Observe sleep for sleep disorders **PHASE** • Maintain neutral sleep pattern • Get early morning light exposure for 30 minutes daily • Maintain reliable nutrition routines (breakfast is the most important meal of the day) **KEY POINTS** • Maintain 15-30 minutes bedtime routine • Monitor and control “screen time” • Monitor caffeine intake	**DURATION** • 9 + 30 minutes nap between 2-4pm **QUALITY** • Ensure a comfortable sleep environment • Initiate regular napping strategy • Monitor for excessive sleepiness and fatigue • Observe sleep for sleep disorders **PHASE** • Ensure a comfortable sleep environment • Initiate regular napping strategy • Monitor for excessive sleepiness and fatigue • Observe sleep for sleep disorders **KEY POINTS** • Reinforce the importance of sleep routine • Monitor for cumulative sleep debt (<9 hours/night or <56 hours/week) • Monitor caffeine intake • Do not train on an unrested body	**DURATION** • 8-10 + 30 minutes nap between 2-4pm **QUALITY** • Ensure a comfortable sleep environment when travelling and competing • Monitor for competition stress and anxiety which leads to insomnia • Monitor for excessive sleepiness and fatigue • Observe sleep for sleep disorders **PHASE** • Maintain regular sleep/nap routine • Monitor for a delayed sleep phase (difficulty falling asleep and waking up for school) • Get early morning light exposure for 30 minutes daily • Maintain reliable nutrition routines (breakfast is the most important meal of the day) **KEY POINTS** • Focus on reducing sleep debt. Get 56-70 hours of sleep/week • Do not train if unrested and sleep deprived • Avoid technology (screen time) before bed • If your sleep is poor, seek help	**DURATION** • 8-10 + 30 minutes nap between 2-4pm **QUALITY** • Ensure a comfortable sleep environment when travelling and competing • Monitor for competition stress & anxiety which leads to insomnia • Observe sleep for sleep disorders **PHASE** • Maintain regular sleep/nap routine • Monitor for a delayed sleep phase (difficulty falling asleep and waking up for school) • Get early morning light exposure for 30 minutes daily • Maintain reliable nutrition routines (breakfast is the most important meal of the day) **KEY POINTS** • Focus on reducing sleep debt • Get 56-70 hours of sleep/week • Do not train if unrested and sleep deprived • Avoid technology (screen time) before bed • If your sleep is poor, get help

TECHNICAL | TACTICAL | STRATEGIC DEVELOPMENT

CONSIDERATIONS FOR THE COACH

Coaches working with young athletes should consider the following within their programs:

- Competition Improvement Plan – National Events – introduced in June 2016;
- Competition Improvement Plan – Recommendations – Provincial and Developmental Events – introduced June 2018;
- Appropriate periodization based on stage of development that includes appropriate training blocks and competition opportunities;
- Coaches and clubs should have developed stroke models. It is important to understand the stroke endpoint and be able to dissect the important components for development;
- Coaches need to first recognize the stage of development the swimmer is in and then introduce stage appropriate drills to develop swimming skills:
  - Drills must all connect to a bigger plan around skill and stroke development;
  - Drills must be used purposefully to develop a skill and not as “filler” in a workout;
  - Drills should not only be used for stroke development, but also for the development of overall physical literacy in the water.
- Swimmers need to be able to repeat and maintain basic physical literacy skills before new skills are built upon them. Coaches should go back and review the basic skills in order to ensure that swimmers can reliably perform them.

NOTE: The swimming ADM will focus on the swimming technical / tactical / strategic skills in the Fundamental – Train to Win stage of athlete development; however, this table will share some of the basic movement skills that are integral in building a well-balanced athlete. You can find these listed below.

TECHNICAL SKILLS

LTAD STAGE	ACTIVE START	FUNDAMENTALS (FUN)	LEARN TO TRAIN (L2T)
AGE OR STAGE	FEMALE AND MALE 0-6	FEMALE 5-8 MALE 6-9	FEMALE 8 – ONSET OF PUBERTY (~11) MALE 9 – ONSET OF PUBERTY (~12)

MOVEMENT COMPETENCY	• Master basic movement skills
	  • Body control skills
	  • Body movement (locomotor) skills
	  • Object manipulation skills
		• Master fundamental movement skills	• Master foundational sport skills

AGILITY	• Walk, run, stop, start and change direction	• Rapid stop-start, change of direction and rapid direction changes using different modes of movement in different environments	• Rapid stop-start and change of direction in multiple environments within a wide range of sport disciplines
	• Walk, run, wheel, move, stop, start and change direction • Finding the end points of movement as impacted by impairment, and working skills in extension and at end of range	• Rapid stop-start, change of direction and rapid direction changes using different modes of intentional movement in different environments	• Resilient maintenance and-or development of agility in the face of progressive impairment, surgical intervention and impairment presentation
BALANCE	• Static and dynamic balance on ground-level high friction base	• Static and dynamic balance on raised surfaces and multiple different surfaces • Balance on different body parts	• Multiple sport-specific static and dynamic balance at different heights and on multiple sport surfaces • Balance on different body parts as required by sport
	• Developing posture with (active, not static) dynamic movement	• Body position builds on posture development in a dynamic setting • Balance learning recovery and rotation in a controlled dynamic position **Note:** water provides a child with an impairment a safe environment to work the end of skill ranges	• Static and dynamic balance on the surface, under the surface, rolling through multiple axes, weight transfer, off the wall, off the block
COORDINATION	• Basic hand-eye and foot-eye coordination • Efficient use of different body parts in execution of basic human movements • Basic use of implements to strike stationary and slowly moving large objects • Ability to hold crayon/pencil and print	• Efficient hand-eye and foot-eye coordination when stationary and moving • Efficient integration of body segments in execution of fundamental movement skills while both stationary and moving • Efficient use of bats, sticks, racquets and other implements in striking smaller objects moving at increasing speeds	• Efficient sport based hand-eye and foot-eye coordination when stationary and moving • Efficient integration of body segments in execution of foundational sport skills while both stationary and moving • Efficient use of sport-specific bats, sticks, racquets, etc. in striking smaller, moving objects and at increasing speeds
	• Exploration of risk and limits of ability through exposure to failure in safe (fun) play	• Efficient integration of body segments in execution of fundamental movement skills in the water	• Repeatability of movements at speed/increased rate of the skill and not sacrificing the skill when speed or rate is added, linked to the appropriateness of speed level to allow for movement at speed with precision

TECHNICAL SKILLS

LTAD STAGE	ACTIVE START	FUNDAMENTALS (FUN)	LEARN TO TRAIN (L2T)
AGE OR STAGE	FEMALE AND MALE 0-6	FEMALE 5-8 MALE 6-9	FEMALE 8 – ONSET OF PUBERTY (~11) MALE 9 – ONSET OF PUBERTY (~12)
ORIENTATION	• Comfortable with upright body orientation and location of limbs when upright • Experiences different body orientations (upside down, rolling, somersault, etc.)	• Comfortable with body orientation when upright or perpendicular, and can move hands and feet to target when in either orientation • Does not get easily disoriented when rotating slowly around any of three axes	• Comfortable with body orientations required for effective sport participation
	• Comfortable with upright body orientation and location of limbs when upright • Experiences different body orientations (upside down, rolling, somersault, etc.)	• Comfortable with body orientation when upright or perpendicular, and can move hands and feet to target when in either orientation • Does not get easily disoriented when rotating slowly around any of three axes • Comfortable managing asymmetry to achieve desired orientation	• Comfortable acquiring, maintaining and/or reacquiring physical orientation
SPEED	• Play games that involve running and following others	• Games involving running, rapid direction changes, and sudden stop-start • Games that encourage hand and foot speed development and coordination such as skipping	• Focus on games and activities that require segment (arm-hand/leg-foot) speed and coordination such as rope jumping
	• Purposeful games involving speed	• Games involving control start-stop, and intentional change of speed	• Use of rhythm for the development of cyclical skills prior to stroke development • Use of tempo to be integrated with cyclical movement to develop whole and partial body use • Development of skill from motor planning of the skill without need for focus linked to reliability of skill
SUPPLEMENTAL	• Learning breath control including proper diaphragmatic breathing in, breathing out, holding the empty breath	• Purposeful games – development of physical literacy and physical skills	• Acquiring, maintaining and/or reacquiring of physical literacy and physical skills

TECHNICAL | TACTICAL | STRATEGIC

LTAD STAGE	FUNDAMENTALS (FUN)	LEARN TO TRAIN (L2T)	TRAIN TO TRAIN (T2T)	TRAIN TO COMPETE (T2C)	TRAIN TO WIN (T2W)
AGE OR STAGE	**FEMALE 5-8 MALE 6-9**	**FEMALE 8 – ONSET OF PUBERTY (~11) MALE 9 – ONSET OF PUBERTY (~12)**	**PERIOD OF PUBERTY FEMALE AND MALE**	**PERFORMANCE PATHWAY COMPETITIVE FOR LIFE**	**PERFORMANCE PATHWAY COMPETITIVE FOR LIFE**
GENERAL SWIMMING SKILLS	• Basic swimming skills – all strokes, turns, starts • Provide knowledge of the basic use of swimming equipment • General, overall development • FUN and participation • Physical literacy • Speed, power, and endurance through FUN and games • Introduction of kicking in all 4 strokes	• Further development and consistent demonstration of all swimming skills • Progressively refined swimming skills – strokes, turns, starts, underwater skills • Sculling and "feel for water" • Proficient kicking in all 4 strokes, including underwater fly (dolphin kick) • Development of all 4 strokes (200 IM)	• Further development and mastery of sport skills • Development of aerobic base, plus all 4 strokes (200 IM) • Continue kick development	• Continue to compete in wide range of events based on strokes and distance • Continue kick development • Sighting buoys • Drafting • Starts and finishes • Experience different distances	• Specialize in an event(s) • Model all possible aspects of performance in training • Develop race strategies
FEEL FOR WATER (CS4L Document)	• Is comfortable in water, can orient themselves in water around all three axes, and can feel water pushing back against body movements	• Develops a feel for water pushing back against hand, arms and legs during stroke pattern • Can identify when body is not properly aligned to reduce drag	• Refines feel for water during strokes, starts, turns and finishes • Can identify when body is optimally aligned for lowest drag	• Further refines feel for water during strokes, starts, turns and finishes • Can identify when body is optimally aligned for lowest drag, including when breathing	

TECHNICAL | TACTICAL | STRATEGIC

LTAD STAGE	FUNDAMENTALS (FUN)	LEARN TO TRAIN (L2T)	TRAIN TO TRAIN (T2T)	TRAIN TO COMPETE (T2C)	TRAIN TO WIN (T2W)
AGE OR STAGE	FEMALE 5-8 MALE 6-9	FEMALE 8 – ONSET OF PUBERTY (~11) MALE 9 – ONSET OF PUBERTY (~12)	PERIOD OF PUBERTY FEMALE AND MALE	PERFORMANCE PATHWAY COMPETITIVE FOR LIFE	PERFORMANCE PATHWAY COMPETITIVE FOR LIFE
PROPULSION					
PROPULSION: ARM stroke pattern (CS4L Document)	• Basic arm movements for strokes	• Swimmer develops and swims all strokes • Path of hand and arm through the water is consistent with stroke rules and sound basic technique • Variation in technique seen from stroke-cycle to stroke-cycle, and deterioration of stroke mechanics seen with fatigue • Adequate stroke symmetry	• Stroke symmetry good and stroke mechanics maintained with moderate fatigue • Stroke mechanics increase forward propulsion and reduce unnecessary lateral and vertical forces • Stroke length and propulsion force modified to optimize impulse (force x time) per stroke cycle • Speed of hand though water adjusted to increase propulsion At the end of this stage… • Stroke symmetry very good and stroke mechanics virtually unchanged with fatigue • Stroke mechanics maximize forward propulsion and minimize lateral and vertical forces • Stroke length and propulsion force optimized to increase impulse (force x time) per stroke cycle and maximize work rate (sprints) and maximize efficiency (distance)	• Stroke symmetry excellent and stroke mechanics unchanged with fatigue • Stroke mechanics maximize forward propulsion and minimize lateral and vertical forces • Stroke length and propulsion force optimized to maximize impulse per stroke cycle and maximize work rate (sprints) and maximize efficiency (distance) • Speed of hand though water optimized to maximize propulsion	
PROPULSION: ARM area creating propulsion (CS4L Document)	• Uses flat of hand	• Hand and arm orientation generates propulsive force	• Hand and arm orientation generally perpendicular to force production to greatest degree possible, and hand shape/finger spread increases propulsion At the end of this stage… • Hand and arm orientation optimized for force production, and hand shape/finger spread optimized for force production	• Hand and arm orientation optimized for force production, and hand shape/finger spread maximizes force production	

TECHNICAL | TACTICAL | STRATEGIC

LTAD STAGE	FUNDAMENTALS (FUN)	LEARN TO TRAIN (L2T)	TRAIN TO TRAIN (T2T)	TRAIN TO COMPETE (T2C)	TRAIN TO WIN (T2W)
AGE OR STAGE	FEMALE 5-8 MALE 6-9	FEMALE 8 – ONSET OF PUBERTY (~11) MALE 9 – ONSET OF PUBERTY (~12)	PERIOD OF PUBERTY FEMALE AND MALE	PERFORMANCE PATHWAY COMPETITIVE FOR LIFE	PERFORMANCE PATHWAY COMPETITIVE FOR LIFE
PROPULSION: ARM (CS4L Document)	• Use hands and arms effectively	• If asymmetric arm function due to disability, develop asymmetric arm action to reduce overall lateral force development (zig-zagging), and generate forward force	• Develop asymmetric arm action, if necessary, to reduce lateral force development, increase forward force production and reduce unwanted drag forces At the end of this stage… • Build asymmetric arm action to eliminate unwanted lateral force development, optimize forward force production and reduce unwanted drag and vertical forces	• Refine asymmetric arm action to eliminate unwanted lateral force development, optimize forward force production and eliminate unwanted drag and vertical forces	
PROPULSION: LEGS freestyle and backstroke (CS4L Document)	• Keep legs near surface of the water	• Generate sufficient vertical force to stop legs dropping and increasing drag • Generate forward propulsion	• Generate sufficient vertical force to stop legs dropping • Generate efficient forward propulsion • Adjust leg action as necessary to accommodate breathing in freestyle At the end of this stage… • Generate forward propulsion with legs at level appropriate to length of race and utilization of energy systems • Adjust leg action as necessary to accommodate breathing in freestyle	• Optimize forward propulsion with legs at level appropriate to length of race and utilization of energy systems • Adjust leg action as necessary to accommodate breathing in freestyle	
PROPULSION: LEGS breaststroke and butterfly (CS4L Document)	• Keep legs near water surface	• Generate sufficient vertical force to stop legs dropping and increasing drag • Generate forward propulsion • Time leg action to correct phase of arm action and breathing	• Generate sufficient vertical force to stop legs dropping • Generate efficient forward propulsion • Time leg action to correct phase of arm action and breathing At the end of this stage… • Generate forward propulsion with legs at level appropriate to length of race and utilization of energy systems • Time leg action to correct phase of arm action and breathing	• Optimize forward propulsion with legs at level appropriate to length of race and utilization of energy systems • Time leg action to correct phase of arm action and breathing	

TECHNICAL | TACTICAL | STRATEGIC

LTAD STAGE	FUNDAMENTALS (FUN)	LEARN TO TRAIN (L2T)	TRAIN TO TRAIN (T2T)	TRAIN TO COMPETE (T2C)	TRAIN TO WIN (T2W)
AGE OR STAGE	FEMALE 5-8 MALE 6-9	FEMALE 8 – ONSET OF PUBERTY (~11) MALE 9 – ONSET OF PUBERTY (~12)	PERIOD OF PUBERTY FEMALE AND MALE	PERFORMANCE PATHWAY COMPETITIVE FOR LIFE	PERFORMANCE PATHWAY COMPETITIVE FOR LIFE
PROPULSION: LEGS (CS4L Document)	• Keep legs near water surface	• With asymmetric leg function due to disability, develop asymmetric leg action to reduce overall lateral force development (zig-zagging), and generate some vertical and forward force	• Develop asymmetric leg action, if necessary, to reduce lateral force development, increase forward force production and optimize vertical force production to prevent legs dropping At the end of this stage… • Build asymmetric leg action to eliminate unwanted lateral force development, optimize forward force production and optimize vertical forces	• Refine asymmetric leg action to eliminate unwanted lateral force development, maximize forward force production, and optimize vertical forces	
LEG PROPULSION: FORCE (turns) (CS4L Document)	• Develop strong push off from wall	• Within rules, develop dolphin kick underwater at start, and out of turns	• Within rules, effectively use dolphin kick underwater at start and out of turns At the end of this stage… • Within rules, refine use of dolphin kick underwater at start and turns	• Within rules, maximize use of dolphin (or other) kick underwater at start and turns	
LEG PROPULSION DIRECTION: STARTS (CS4L Document)	• Push perpendicular to wall	• Push up and out from starting blocks (or wall in backstroke) to achieve clean entry to water	• Push with high force at appropriate angle to cover distance in air while making clean entry (dive starts) At the end of this stage… • Push with maximum force at correct angle to cover optimum distance in air while making clean entry at appropriate angle to achieve desired depth	• Push with maximum force at optimum angle to cover optimum distance in air with optimal entry angle to achieve desired depth and minimize time to 15m mark	
TURN PROPULSION: TURNS (timing) (CS4L Document)	• Can turn in water and push from wall	• Turn starts at right distance from wall to make legal turn with legs bent on foot contact with wall to enable strong push perpendicular to wall	• Turn starts at right distance from wall to make legal turn with legs bent on foot contact with wall to enable strong push at correct angle to achieve desired depth for dolphin kick out from wall	• Turn starts at optimum distance from wall to make legal turn with legs bent on foot contact with wall to enable maximum push at correct angle to achieve desired depth for dolphin kick out from wall	

TECHNICAL | TACTICAL | STRATEGIC

LTAD STAGE	FUNDAMENTALS (FUN)	LEARN TO TRAIN (L2T)	TRAIN TO TRAIN (T2T)	TRAIN TO COMPETE (T2C)	TRAIN TO WIN (T2W)
AGE OR STAGE	**FEMALE 5-8 MALE 6-9**	**FEMALE 8 – ONSET OF PUBERTY (~11) MALE 9 – ONSET OF PUBERTY (~12)**	**PERIOD OF PUBERTY FEMALE AND MALE**	**PERFORMANCE PATHWAY COMPETITIVE FOR LIFE**	**PERFORMANCE PATHWAY COMPETITIVE FOR LIFE**
STROKE UNDERSTANDING (CS4L Document)	• Can count number of strokes	• Counts stokes per pool length and develops consistency	• Understands the relationship between stroke rate, stroke length, swimming speed and energy expenditure At the end of this stage… • Can adjust stroke rate, distance per stroke and swimming speed • Uses stoke count per pool length at a given speed as a measure of stroke efficiency	• Controls Stroke rate, Distance per stroke and energy expenditure to meet the demands of race situation	• Controls with accuracy Stroke rate, Distance per stroke and energy expenditure to meet the demands of race situation
DRAG REDUCTION					
FORM DRAG (CS4L Document)	• Gets legs near surface of water during swimming	• Horizontal body position, with body straight. No bend at hips, and feet in line with head • Head in line with torso	• Horizontal body position, with body straight, no bend at hips, and feet in line with head • Head in line with torso with only small increase in frontal area with breathing • Leg action completed with no unnecessary increase in frontal area At the end of this stage… • Horizontal body position, with body straight, no bend at hips, and feet in line with head. Head in line with torso with only small increase in frontal area with breathing • Leg action considers the relative increase in propulsion and the increased drag that comes from a “bigger” kick • Kick adjusted for race duration	• Optimized body position with minimal increase in frontal area with breathing • Select suits to optimize compression of body with rule limits • Leg action optimized for the relative increase in propulsion and the increased drag that comes from a “bigger” kick, and swimmer able to adjust as required based on available energy expenditure	
FORM DRAG (buoyancy) (CS4L Document)	• Learn to float	• Ability to adjust body orientation by aligning center of gravity and center of buoyancy	• Ability to adjust buoyancy through body position and control of lung inflation	• Ability to optimize buoyancy through body position and control of lung inflation	

TECHNICAL | TACTICAL | STRATEGIC

LTAD STAGE	FUNDAMENTALS (FUN)	LEARN TO TRAIN (L2T)	TRAIN TO TRAIN (T2T)	TRAIN TO COMPETE (T2C)	TRAIN TO WIN (T2W)
AGE OR STAGE	FEMALE 5-8 MALE 6-9	FEMALE 8 – ONSET OF PUBERTY (~11) MALE 9 – ONSET OF PUBERTY (~12)	PERIOD OF PUBERTY FEMALE AND MALE	PERFORMANCE PATHWAY COMPETITIVE FOR LIFE	PERFORMANCE PATHWAY COMPETITIVE FOR LIFE
FORM DRAG (start) (CS4L Document)	• Not a consideration at this stage	• Basic dive entry into water, arms in line with body	• Smooth entry, with good body alignment At the end of this stage… • Smooth entry, with good body alignment • Good body position during underwater glide phase • Initiation of dolphin kick when glide speed drops to maximum kick speed	Based on empirical evidence: • Smooth entry, with optimum body alignment. Optimized body position during underwater glide phase • Initiation of dolphin kick when glide speed drops to maximum kick speed • Magnitude of dolphin kick optimized for net propulsion (propulsion minus drag)	
FORM DRAG (turns) (CS4L Document)	• Not a consideration at this stage	• Basic turn push off from wall with arms in line with body during glide phase	• Good body alignment during push off • Good timing of initiation of dolphin kick At the end of this stage… • Excellent body alignment during push off • Excellent body position during underwater glide phase • Initiation of dolphin kick when glide speed drops to maximum kick speed	Based on empirical evidence: • Optimized body alignment during push off • Optimized body position during underwater glide phase • Initiation of dolphin kick when glide speed drops to maximum kick speed • Magnitude of dolphin kick optimized for net propulsion (propulsion minus drag)	
FORM DRAG (breathing) (CS4L Document)	• Breathes without interrupting stroke	• Breathing at correct time in stroke cycle • Head kept in line with body when head in water • In freestyle, head rotated not lifted • Quality of breathing movement deteriorates with fatigue	• Breathing causes minimal increase in form drag	• Breathing action optimized with no deterioration of form with fatigue	• Breathing action optimized with no deterioration of form with fatigue

TECHNICAL | TACTICAL | STRATEGIC

LTAD STAGE	FUNDAMENTALS (FUN)	LEARN TO TRAIN (L2T)	TRAIN TO TRAIN (T2T)	TRAIN TO COMPETE (T2C)	TRAIN TO WIN (T2W)
AGE OR STAGE	**FEMALE 5-8 MALE 6-9**	**FEMALE 8 – ONSET OF PUBERTY (~11) MALE 9 – ONSET OF PUBERTY (~12)**	**PERIOD OF PUBERTY FEMALE AND MALE**	**PERFORMANCE PATHWAY COMPETITIVE FOR LIFE**	**PERFORMANCE PATHWAY COMPETITIVE FOR LIFE**
SURFACE DRAG (CS4L Document)	• Not a consideration at this stage	• Not a consideration at this stage	• Reduce surface drag through removal of body hair, and use of swim cap for major competitions At the end of this stage… • Reduce surface drag through removal of body hair (shave), and/or use of swim cap for major competitions • Reduce surface drag through use of suit with optimal drag materials	• Reduce surface drag through removal of body hair (shave), and/or use of swim cap for major competitions • Reduce surface drag through use of suit with optimal drag materials • Base decisions on empirical drag data	• Minimize surface drag through removal of body hair (shave), and/or use of swim cap for major competitions • Minimize surface drag through use of legal suits that minimize drag • Base decisions on empirical drag data
WAVE DRAG (stroke mechanics) (CS4L Document)	• Not a consideration at this stage	• Reduce unnecessary splashing	• Orientate body to reduce wave production • Maximize distance underwater (consistent with rules) at start and turns At the end of this stage… • Orientate body to reduce wave production • Optimize stoke action for net increase in propulsion with minimal increase in wave drag • Reduce splash on start entry and at turns • Maximize distance underwater (consistent with rules) at start and turns	• Optimize body orientation to reduce wave production, particularly during breathing, starts, and turns • Maximize distance underwater (consistent with rules) at start and turns • Base body orientation and stroke decisions on empirical data	
WAVE DRAG (breathing) (CS4L Document)	• Not a consideration at this stage	• Reduce unnecessary wave production when taking a breath	• **Freestyle:** Optimized head orientation during breathing to create minimum wave trough in which to breath	• **Freestyle:** Optimized head orientation during breathing to create minimum wave trough in which to breath • Ability to breath on non-preferred side without increased wave production when this is tactically necessary	

TECHNICAL | TACTICAL | STRATEGIC

LTAD STAGE	FUNDAMENTALS (FUN)	LEARN TO TRAIN (L2T)	TRAIN TO TRAIN (T2T)	TRAIN TO COMPETE (T2C)	TRAIN TO WIN (T2W)
AGE OR STAGE	FEMALE 5-8 MALE 6-9	FEMALE 8 – ONSET OF PUBERTY (~11) MALE 9 – ONSET OF PUBERTY (~12)	PERIOD OF PUBERTY FEMALE AND MALE	PERFORMANCE PATHWAY COMPETITIVE FOR LIFE	PERFORMANCE PATHWAY COMPETITIVE FOR LIFE
TRAINING SPECIFICITIES					
SEASONAL OVERVIEW			• 48 weeks	• 48 weeks	• 48 weeks
WEEKLY TRAINING VOLUME	• Skill acquisition	• Pool volume: 8-24 km/week	• At the start of T2T: 24-32 km/week • Work towards trainability volumes (44-52+ km/week over 48 weeks) at maturation (13/14/15 years)	• Work towards trainability volumes (44-52+ km/week over 48 weeks) at maturation (13/14/15 years)	• Depends on specialization and event distances • 60-100 km / week • Depends on specialization and event distances
				• **Sport Class (SC) 1:** 3-4 km/week • **SC 2:** 5-6 km/week • **SC 3:** 7.5-10 km/week • **SC 4:** 7.5-12 km/week • **SC 5:** 10-21 km/week • **SC 6:** 12.5-24 km/week • **SC 7:** 18-28 km/week • **SC 8:** 22-32 km/week • **SC 9:** 24-36 km/week • **SC 10, 12-14:** 24-40 km/week • **SC 11:** 15-28 km/week	• **SC 1:** 4-6 km/week • **SC 2:** 5-10 km/week • **SC 3:** 10-17.5 km/week • **SC 4:** 12.5-21 km/week • **SC 5:** 18-32 km/week • **SC 6:** 21-32 km/week • **SC 7:** 25-40 km/week • **SC 8:** 28-45 km/week • **SC 9:** 32-50 km/week • **SC 10, 12-14:** 36-55 km/week • **SC 11:** 25-40 km/week

TECHNICAL | TACTICAL | STRATEGIC

LTAD STAGE	FUNDAMENTALS (FUN)	LEARN TO TRAIN (L2T)	TRAIN TO TRAIN (T2T)	TRAIN TO COMPETE (T2C)	TRAIN TO WIN (T2W)
AGE OR STAGE	**FEMALE 5-8 MALE 6-9**	**FEMALE 8 – ONSET OF PUBERTY (~11) MALE 9 – ONSET OF PUBERTY (~12)**	**PERIOD OF PUBERTY FEMALE AND MALE**	**PERFORMANCE PATHWAY COMPETITIVE FOR LIFE**	**PERFORMANCE PATHWAY COMPETITIVE FOR LIFE**
WEEKLY TRAINING HOURS	• Pool time: 30 min-3 hours rising to 1.5-6 hours	• Pool time: 4-12 hours • Dryland: 1-2 hours	• Pool time: 12-20 hours • Dryland: 2-3 hours	• Pool time: 16-24 hours • Dryland: 3-4 hours	• Pool time: 20-24 hours • Dryland: 3-6 hours
SESSION PARAMETERS	• 30-60 minute sessions 1-3 times per week rising to 4-6 sessions per week • General sport participation 5-6 times per week including land work and multisport activity	• 90+ minute swimming-specific training 4-6 times per week, plus participation in other sports	• 90-120 minute swimming-specific training 8-10 times per week	• 90-180-minute training sessions 8-12 times per week • 90 to 150-minute sessions 8-12 times per week	• 90-180 minute training sessions 10-15 times per week • 90 to 180-minute sessions 10-15 times per week
	• 30-60 minute sessions 1-3 times per week plus participation in other activities	• 90+ minute swimming-specific training 3-6 times per week plus participation in other activities	• **SC 1-2:** 45-60 minute sessions 3-5 times per week • **SC 3-4:** 60-75 minute sessions 3-5 times per week • **SC 6-7:** 60-90 minute sessions 6-8 times per week • **SC 8, 9, 11:** 75-90 minute sessions 6-8 times per week • **SC 10, 12, 13, 14:** 60-120 minute sessions 6-8 times per week	• **SC 1-4:** 60-75 minute sessions 3-5 times per week • **SC 5-6:** 60-90 minute sessions 3-9 times per week • **SC 7:** 60-105 minute sessions 6-9 times per week • **SC 8-14:** 90-120 minute sessions 7-9 times per week	• **SC 1-4:** 60-75 minute sessions 4-6 times per week • **SC 5-6:** 60-90 minute sessions 4-9 times per week • **SC 7:** 60-105 minute sessions 7-9 times per week • **SC 8-14:** 90-150 minute sessions 8-10 times per week

TECHNICAL | TACTICAL | STRATEGIC

LTAD STAGE	FUNDAMENTALS (FUN)	LEARN TO TRAIN (L2T)	TRAIN TO TRAIN (T2T)	TRAIN TO COMPETE (T2C)	TRAIN TO WIN (T2W)
AGE OR STAGE	FEMALE 5-8 MALE 6-9	FEMALE 8 – ONSET OF PUBERTY (~11) MALE 9 – ONSET OF PUBERTY (~12)	PERIOD OF PUBERTY FEMALE AND MALE	PERFORMANCE PATHWAY COMPETITIVE FOR LIFE	PERFORMANCE PATHWAY COMPETITIVE FOR LIFE
YEARLY TRAINING PLANS - COMPETITIONS					
PERIODIZATION	• No periodization • Regularly-monitored, well-structured programs with proper progressions	• Regularly-monitored, well-structured programs with proper progressions, which may include: school time programming, 10-week blocks (Sept-Dec; Jan-March break; March-June), sessional programming	• Double periodization For example: Double (2 x 24 week macro-cycles / 3 x 16 week macro-cycles)	• Single, double periodization For example: Double (2 x 24 week macro-cycles / 3 x 16 week macro-cycles)	• Single, double, or multiple periodization (dictated by international calendar of events) Double (distance) Multiple (sprinters)
			• Para swimming double periodization	• Para swimming double periodization	• Para swimming double periodization
SEASONAL OVERVIEW / LENGTH		• Sept/Oct - May/June	• 48 weeks	• 48 weeks	• 48 weeks
PREPARATION FOR COMPETITION	• Not appropriate • 2 rest and preparation competitions per year		• Introduce preparation phase for competition that aligns with peak performance windows • When preparation is introduced, it should only occur for 2-3 days in peak performance windows (March-April and July-August)	• Increase importance of preparation at this stage • Preparation should be developed and optimized • Athletes begin to specialize	• Preparation for competition refined, individualized, and modeled
			• 2 rest and preparation competitions per year	• 2 rest and preparation competitions per year	• 2 rest and preparation competitions per year
NUMBER OF COMPETITIONS	• Club-based, non-traditional competition	• 12-18 single session meets (i.e., 2-4-hour club meet); towards end of this stage multi-day weekend competitions may be introduced	• 12-18 competitions per season, which will include: single-sessions, weekend, 4-day and 6-day competitions (variety of different types of competitions) • No limit, but as a swimmer moves towards recommended training volumes (see above), the number of competitions is likely to reduce significantly towards a maximum of 12 competitions per year	• Maximum of 12 competitions per year	• Advanced competition schedules • Maximum of 12 competitions per year
				• 2 end-of-cycle peak competitions	• 2 end-of-cycle peak competitions

TECHNICAL | TACTICAL | STRATEGIC

LTAD STAGE	FUNDAMENTALS (FUN)	LEARN TO TRAIN (L2T)	TRAIN TO TRAIN (T2T)	TRAIN TO COMPETE (T2C)	TRAIN TO WIN (T2W)
AGE OR STAGE	**FEMALE 5-8 MALE 6-9**	**FEMALE 8 – ONSET OF PUBERTY (~11) MALE 9 – ONSET OF PUBERTY (~12)**	**PERIOD OF PUBERTY FEMALE AND MALE**	**PERFORMANCE PATHWAY COMPETITIVE FOR LIFE**	**PERFORMANCE PATHWAY COMPETITIVE FOR LIFE**
COMPETITION TYPES	• Participation in introductory, club-based, competitive events with introduction to rules, ethics, and fair play • Recognition and design of safe environments for all participants • Formal competition not necessary • FUN, non-traditional competitions that focus on skill development (e.g., weekly racing/competitive exposure within club) • SCM or SCY only; also non-traditional, width swimming • Recognition and design of safe environments for all participants – i.e., totally blind and safety for touch, double arm amputees and safe touch	• Club, interclub, regional meets that focus on skill development – multi-stroke, distances, and introduction of relays • Timed finals with an introduction of heats and finals towards the end of the stage • Short course (SC) racing opportunities to promote skill development	• Club, interclub, regional, provincial, Eastern/Western Championships, Canadian Junior Championships, Can-Am, Canada Games • Swimmer progresses towards performing in the peak performance windows (March-April and July-August) • Provincial Championship meets would be conducted in the Peak Performance Windows Long course (LC) • Athletes experience SC and LC racing opportunities	• Club, interclub, regional, provincial, Eastern/Western Championships, Canadian Junior Championships, Can-Am, Canadian Swimming Championships, Trials, Canada Games, International championships/games (if selected by Swimming Canada) • SC racing from Sept-Dec and LC racing from Jan - Aug • Target meet in Dec, but no shave and taper • LC performances in the peak performance windows of Mar-Apr and July-Aug still in place • Ability to perform in individual and relay events in the same session	• Club, interclub, regional, provincial, Eastern/Western Championships, Canadian Junior Championships, Canadian Swimming, Can-Am Championships, Trials, International championships/games (if selected by Swimming Canada) • Olympic/Paralympic Games • SC racing from Sept-Dec and LC racing from Jan-Aug • Target meet in Dec, but no shave and taper • LC performances in the peak performance windows of Mar-Apr and July-Aug still in place • Ability to perform in individual and relay events in the same session
COMPETITION PROFILES	• Understand the principles that govern competition • Developmental Swim Meet: Learning environment – no "officials" and practice competitions; senior swimmers acting as "officials/mentors" to the younger swimmers • Award recognition (skill based awards – no awards based on placing (1st – 8th) and no point scoring)	• Focus on skill and process development, not on the end result • Mixture of practice competitions and sanctioned competitions • Will involve no disqualifications during practice competitions progressing into required disqualifications in sanctioned competitions • Awards and recognition – best time; skill based awards – no awards based on placing (1st – 8th) or point scoring, progressing to meets with placing and scoring • Full para swimming integration with all other swimmers/events until classification occurs (Rule exceptions required)	• Some competitions racing below athlete's current level (experience with different technical and tactical strategies) • Some competitions racing at athlete's current level (involved in racing w/ peers, swimming fast in heats to make final) • Some competitions racing above athlete's current level where he/she is outside his/her comfort zone • **Note:** Different swimmers within the same training group at the club will have different targets at different competitions • Full para swimming integration with all other swimmers/events	• Some competitions racing below athlete's current level (experience with different technical and tactical strategies) • Some competitions racing at athlete's current level (involved in racing w/ peers, swimming fast in heats to make final) • Some competitions racing above athlete's current level where he/she is outside his/her comfort zone • **Key Point:** The coach, in consultation with the athlete, should use an individualized approach towards competition exposure and use of relevant competitions in mid-season meets outside the peak performance windows	• All competitions should fit within yearly training plan as determined by the coach • **Key Point:** The coach, in consultation with the athlete, should use an individualized approach towards competition exposure and use of relevant competitions in mid-season meets outside the peak performance windows. The coach would ensure that peak performance comes in the targeted competition

TECHNICAL | TACTICAL | STRATEGIC

LTAD STAGE	FUNDAMENTALS (FUN)	LEARN TO TRAIN (L2T)	TRAIN TO TRAIN (T2T)	TRAIN TO COMPETE (T2C)	TRAIN TO WIN (T2W)
AGE OR STAGE	FEMALE 5-8 MALE 6-9	FEMALE 8 – ONSET OF PUBERTY (~11) MALE 9 – ONSET OF PUBERTY (~12)	PERIOD OF PUBERTY FEMALE AND MALE	PERFORMANCE PATHWAY COMPETITIVE FOR LIFE	PERFORMANCE PATHWAY COMPETITIVE FOR LIFE
COMPETITION EVENTS	• Short speed events up to 25m for all strokes as well as dolphin kick, streamline races, kick races, turns • Include fun team activities • Shift to age/stage appropriate "mini swimming events"	• Events based on key skills, for example: 150 IM (25m fly, 50m back, 25m breast, 50m free); 300 IM (50m fly, 100m back, 50m breast, 100m free) • Short speed events (25m and 50m if SCM) • Equal multi-stroke technical emphasis should include non-traditional events (e.g., 75m fly, skill-based limited events, 15m dolphin kick) based on individual adaptation • Middle distance, multi-stroke, technical emphasis (200m) • Individual medley-based racing 100m, 200m • Gradually increasing swim distances for technique – technical based distance swimming • **Relays:** 4x25m, 4x50m **Note:** At this stage, SCM racing is preferred to reinforce skill development	• Key focus on Olympic events • Strategic placement of stroke 50 racing • **Relays**: Introduce 4x100m and 4x200m	• Peak performance windows focused on Olympic events**:** • 50m, 100m, 200m, 400m, 800m, 1500m free • 100m, 200m back • 100m, 200m breast • 100m, 200m fly • 200m, 400m IM • Olympic relays and mixed relays 4x200m • Peak placement of stroke 50 racing	• Peak performance windows focused on Olympic events: • 50m, 100m, 200m, 400m, 800m, 1500m free • 100m, 200m back • 100m, 200m breast • 100m, 200m fly • 200m, 400m IM • Olympic relays • Relays: 4x100M free, medley, 4x200M free **Note:** National teams may need a peak performance that falls outside the Canadian peak performance windows such as FINA 25m Championships
			• Key focus on Paralympic events • Other events may be used to develop the core events for the Paralympic Program	• Peak performance windows focused on designated Events (the combination between Canada Summer Games and the Paralympic games) Individual Events: • **S1 - 13:** 50m freestyle • **S1 - 14:** 100m freestyle • **S1 - 5, S14:** 200m freestyle • **S6 - 14:** 400m freestyle • **S2 – 7:** 50m Butterfly • **S8 – 14:** 100m Butterfly • **SM1 – 4:** 75m Ind. Medley (short course without butterfly) • **SM5 – 13:** 100m Ind. Medley (short course only) • **SM1 – 4:** 150m Ind. Medley (without butterfly) • **SM5 – 14:** 200m Ind. Medley	• Peak performance focused on Paralympic events Individual Events: • **S1 - 13:** 50m freestyle • **S1 - 14:** 100m freestyle • **S1 - 5:** 50m backstroke • **S1-2, S6-14:** 100m backstroke • **SB1 – 3:** 50m breaststroke • **SB4 – 14:** 100m Breaststroke • **S2 – 7:** 50m Butterfly • **S8 – 14:** 100m Butterfly • **SM1 – 4:** 75m Ind. Medley (short course without butterfly) • **SM5 – 13:** 100m Ind. Medley (short course only) • **SM1 – 4:** 150m Ind. Medley (without butterfly) • **SM5 – 14:** 200m Ind. Medley

TECHNICAL | TACTICAL | STRATEGIC

LTAD STAGE	FUNDAMENTALS (FUN)	LEARN TO TRAIN (L2T)	TRAIN TO TRAIN (T2T)	TRAIN TO COMPETE (T2C)	TRAIN TO WIN (T2W)
AGE OR STAGE	FEMALE 5-8 MALE 6-9	FEMALE 8 – ONSET OF PUBERTY (~11) MALE 9 – ONSET OF PUBERTY (~12)	PERIOD OF PUBERTY FEMALE AND MALE	PERFORMANCE PATHWAY COMPETITIVE FOR LIFE	PERFORMANCE PATHWAY COMPETITIVE FOR LIFE
COMPETITION EVENTS (CONT'D)				Relays: • 4 x 50m Freestyle Maximum 20 points for S1-10 • 4 x 100m Freestyle Maximum 34 points for S1-10, S14 • 4 x 50m Medley Maximum 20 points for S1-10 • 4 x 100m Medley Maximum 34 points for S1-10, S14 • 4 x 100m Freestyle Maximum 49 points for S11-13 • 4 x 100m Medley Maximum 49 points for S11-13 • National teams may need a peak performance that falls outside the Canadian peak performance windows such as the WPS Championships	Relays: • 4 x 50m Freestyle Maximum 20 points for S1-10 • 4 x 100m Freestyle Maximum 34 points for S1-10, S14 • 4 x 50m Medley Maximum 20 points for S1-10 • 4 x 100m Medley Maximum 34 points for S1-10, S14 • 4 x 100m Freestyle Maximum 49 points for S11-13 • 4 x 100m Medley Maximum 49 points for S11-13 • National teams may need a peak performance that falls outside the Canadian peak performance windows such as the WPS Championships
SWIMSUITS	• No technical suits	• No technical suits for swimmers 10 & under • For swimmers 11-14 years of age, technical suits at provincial meets and above only • Clear guidelines including pictures and examples provided to distinguish what is a technical suit and what isn't • Para swimmers needs to be aware of modesty modification rules		• Technical suits for 15 & over permitted • Targeted use of technical suits outside of performance windows, without use of shave and taper • Introduce Open Water technical suits and wet suits	• Technical suits during peak performance windows • Targeted use of technical suits outside of performance windows, without use of shave and taper
SPORT CLASSIFICATION	• No sport class required	• Rule exceptions provided once swimmer starts competing outside of the club (level 1) • Level 2 provided towards the end of this stage	• Level 2 Sport Classification provided at the beginning of this stage • Level 3 Classification provided towards the end of this stage with review status (for PI) if under the age of 18	• Level 3 Classification provided at the beginning of this stage • Swimming Canada identifies swimmers to attend international classification towards the end of this stage with age review status if assigned • **Note:** See Swimming Canada guideline on New International Sport Classifications	• International Sport Classification with age review status (for PI) if under the age of 18

TECHNICAL | TACTICAL | STRATEGIC

LTAD STAGE	FUNDAMENTALS (FUN)	LEARN TO TRAIN (L2T)	TRAIN TO TRAIN (T2T)	TRAIN TO COMPETE (T2C)	TRAIN TO WIN (T2W)
AGE OR STAGE	**FEMALE 5-8 MALE 6-9**	**FEMALE 8 – ONSET OF PUBERTY (~11) MALE 9 – ONSET OF PUBERTY (~12)**	**PERIOD OF PUBERTY FEMALE AND MALE**	**PERFORMANCE PATHWAY COMPETITIVE FOR LIFE**	**PERFORMANCE PATHWAY COMPETITIVE FOR LIFE**
SWIMMING TACTICAL STRATEGIC SKILLS					
TACTICAL	• Introduction to simple rules • Introduce basic racing opportunities and understanding of competition • Start of lane etiquette	• Fundamentals of tactical preparation • Provide an introduction to basic racing principles – pacing strategies, splitting goals • Teach basic practice skills – lane etiquette, pace clocks, positive split, negative split, aptitude of all turns, starts, use of wedges in start, stroke count, introduction of stroke rate, continued learning rules of the sport • Pacing • Introduction of time concepts	• Basic tactical preparation • Individualization of tactical skills • Include early stages of specific race tactical preparation • Teach and observe different individual racing tactics • Stroke rate, pace, time concepts	• Introduction to advanced tactical preparation • Focus on event- and distance-specific tactical preparation • Involve principles of aggressive and passive tactical strategies • Develop athlete's ability to plan and assess competition • Develop athlete's ability to adapt to different competitive situations • Develop an athlete's ability to observe and adapt to opponents	• Advanced tactical preparation
STROKE TACTICS (CS4L Document)	• Achieve forward motion in water	• Develop stroke consistency	• Develop understanding of relationship between distance per stroke (DPS), stroke rate (SR) and swim speed (SS) • Focus on DPS At the end of this stage… • Adjust DPS and SR		
	• Develop balance, body position, floating and rotational control skills	• Experimenting with starting devices, start assistance, and stroke accommodations	• Continue to review stroke consistency, review with starting devices, start assistance, and stroke accommodations	• Master stroke consistency • Consolidate with starting devices, start assistance, and stroke accommodations	• Master with starting devices, start assistance, and stroke accommodations

TECHNICAL | TACTICAL | STRATEGIC

LTAD STAGE	FUNDAMENTALS (FUN)	LEARN TO TRAIN (L2T)	TRAIN TO TRAIN (T2T)	TRAIN TO COMPETE (T2C)	TRAIN TO WIN (T2W)
AGE OR STAGE	FEMALE 5-8 MALE 6-9	FEMALE 8 – ONSET OF PUBERTY (~11) MALE 9 – ONSET OF PUBERTY (~12)	PERIOD OF PUBERTY FEMALE AND MALE	PERFORMANCE PATHWAY COMPETITIVE FOR LIFE	PERFORMANCE PATHWAY COMPETITIVE FOR LIFE
RACE TACTICS (CS4L Document)	• Not appropriate at this stage	• Pace management to ensure completion of race	• Pace and energy management to enable steady-state laps without unplanned buildup of lactic acid and depletion of anaerobic alactic energy stores At the end of this stage… • In distance races, pace and energy management to enable steady-state laps without unplanned buildup of lactic acid and depletion of anaerobic alactic energy stores • Effective use of anaerobic energy stores near race end • For sprints, energy depletionmanagement to maximize energy expenditure over course of race • Experiment with “go out fast and hang on” and “build up speed” approaches to races	• In distance races, pace and energy management to enable steady-state laps without unplanned buildup of lactic acid and depletion of anaerobic alactic energy stores • Effective use of anaerobic energy stores near race end • Evaluate ability to turn in fast laps mid-race and recover from lactic acid build up while swimming as tactic to drop other swimmers • For sprints, energy depletionmanagement to maximize energy expenditure over course of race • Understand body response to “go out fast and hang on” and “build up speed” approaches to races	• In distance races, pace and energy management to enable steady-state laps without unplanned buildup of lactic acid and depletion of anaerobic alactic energy stores • Optimum use of anaerobic energy stores near race end • Build ability to turn in fast laps mid-race and recover from lactic acid build up while swimming as tactic to drop other swimmers • For sprints, energy depletion management to maximize energy expenditure over course of race • Optimize race strategy for race conditions and opponents
		• Para swimmers will have unique physiological constrains that will have to be individually addressed	• Para swimmers will have unique physiological constrains that will have to be individually addressed	• Para swimmers will have unique physiological constrains that will have to be individually addressed	• Para swimmers will have unique physiological constrains that will have to be individually addressed

TECHNICAL | TACTICAL | STRATEGIC

LTAD STAGE	FUNDAMENTALS (FUN)	LEARN TO TRAIN (L2T)	TRAIN TO TRAIN (T2T)	TRAIN TO COMPETE (T2C)	TRAIN TO WIN (T2W)
AGE OR STAGE	**FEMALE 5-8 MALE 6-9**	**FEMALE 8 – ONSET OF PUBERTY (~11) MALE 9 – ONSET OF PUBERTY (~12)**	**PERIOD OF PUBERTY FEMALE AND MALE**	**PERFORMANCE PATHWAY COMPETITIVE FOR LIFE**	**PERFORMANCE PATHWAY COMPETITIVE FOR LIFE**
MEET TACTICS (CS4L Document)	• Not a consideration at this stage	• Relate to the events that we're recommending	• Develop between race protocols for effective recovery • Develop pre-race, between race, post-race, and hydration protocols At the end of this stage… • Record and evaluate between race protocols for effective recovery • Record and evaluate pre-race, inter-race, and post-race nutrition and hydration protocols	• Based on empirical data, establish optimum between race protocols for effective recovery • Based on empirical data, establish optimum pre-race, between race, and post-race nutrition and hydration protocols	**MEET TACTICS** (CS4L Document)
		• Understand how the athlete's rule exceptions apply and are implemented	• Understand how the athlete's rule exceptions apply and are implemented	• Understand the current state of the art of application and official interpretation of the athlete's rule exceptions	
NATIONAL & INTERNATIONAL MEET TACTICS (CS4L Document)	• Not a consideration at this stage	• Not a consideration at this stage	• Generally, not a consideration at this stage, although some time-zone jetlag pre-travel adjustments can improve performance when cross Canada travel involved • Become comfortable with travel and hotel accommodation, and begin to travel independently At the end of this stage… • Develop and use pre-travel and during-travel jetlag minimization protocols • Develop well-tolerated travel routines	• Develop and use pre-travel and during-travel jetlag minimization protocols • Develop well-tolerated travel routines • Ensure supplies of well-tolerated foods when traveling to international meets and when overseas for extended periods • Ensure travel documents and international vaccinations are current and appropriate for destination • Travel independently worldwide	**NATIONAL & INTERNATIONAL MEET TACTICS** (CS4L Document)
				• Be comfortable with having nominated team staff address your personal support needs	

APPENDIX A – STAGE-BY-STAGE – TECHNICAL BENCHMARKS

IDEAL SWIMMING TECHNIQUE BENCHMARKS CREATED THAT SHOULD BE OBSERVED BY THE TRAIN TO TRAIN STAGE AND MAINTAINED THROUGHOUT TRAIN TO COMPETE, TRAIN TO WIN, AND COMPETITIVE FOR LIFE STAGES.

LTAD STAGE	IDEAL SWIMMING TECHNIQUE	TRAIN TO TRAIN (T2T) PERIOD OF PUBERTY FEMALE AND MALE	TRAIN TO COMPETE (T2C) PERFORMANCE PATHWAY COMPETITIVE FOR LIFE	TRAIN TO WIN (T2W) PERFORMANCE PATHWAY COMPETITIVE FOR LIFE
POSTURE BALANCE RECOVERY ANCHOR ACCELERATION (FREESTYLE)	LEFT ARM PULL & RIGHT RECOVERY PHASE	• The left hand should be lower than the left shoulder. • Pulling phase of stroke used to set-up position for strong push. • Mid-point of stroke has hand, elbow, and shoulder in sagittal alignment. • Recovery speed of right arm matches pulling speed of left arm.		
	LEFT ARM PUSH & RIGHT RECOVERY PHASE	• Pushing action comes from pressure on forearm. • Mid-point of right arm recovery has hand, elbow, and shoulder in sagittal alignment. • Recovery speed of right arm matches pushing speed of left arm. • Timing off left arm pushing with kicking actions. • Peak speed reached at end of pushing phase.		
	RIGHT ARM PULL & LEFT RECOVERY PHASE	• The right hand should be lower than the right shoulder. • Pulling phase of stroke used to set-up position for strong push. • Mid-point of stroke has hand, elbow, and shoulder in sagittal alignment. • Recovery speed of left arm matches pulling speed of right arm.		
	RIGHT ARM PUSH & LEFT RECOVERY PHASE	• Pushing action comes from pressure on forearm. • Mid-point of left arm recovery has hand, elbow, and shoulder in sagittal alignment. • Recovery speed of left arm matches pushing speed of right arm. • Timing off right arm pushing with kicking actions. • Peak speed reached at end of pushing phase.		
	FULL STROKE CYCLE	• Body movements optimized to minimize creation of unnecessary waves. • Shoulders work in coordinated rhythm to assist in the application of force onto the water. • Core remains engaged to optimize arm propulsion while stabilizing the body through kicking actions. • Breathing actions in time with stroke so as to not disrupt rhythm, balance, or create unnecessary waves.		

LTAD STAGE	IDEAL SWIMMING TECHNIQUE	TRAIN TO TRAIN (T2T) PERIOD OF PUBERTY FEMALE AND MALE	TRAIN TO COMPETE (T2C) PERFORMANCE PATHWAY COMPETITIVE FOR LIFE	TRAIN TO WIN (T2W) PERFORMANCE PATHWAY COMPETITIVE FOR LIFE
POSTURE BALANCE RECOVERY ANCHOR ACCELERATION (BACKSTROKE)	LEFT ARM PULL & RIGHT RECOVERY PHASE	• The left hand should be lower than the left shoulder. • The timing of the left catch, right exit, and left kick should be simultaneous. • Pulling phase of stroke used to set-up position for strong push. • Mid-point of stroke has hand, elbow, and shoulder in sagittal alignment. • Recovery speed of right arm matches pulling speed of left arm.		
	LEFT ARM PUSH & RIGHT RECOVERY PHASE	• Left arm push with elbow relatively close to body and arm directing the push towards the feet. • Right hand entry before the end of the left arm push. • Timing off left arm pushing with kicking actions. • Peak speed reached at end of pushing phase.		
	RIGHT ARM PULL & LEFT RECOVERY PHASE	• The right hand should be lower than the right shoulder. • The timing of the right catch, left exit, and right kick should be simultaneous. • Pulling phase of stroke used to set-up position for strong push. • Mid-point of stroke has hand, elbow, and shoulder in sagittal alignment. • Recovery speed of left arm matches pulling speed of right arm.		
	RIGHT ARM PUSH & LEFT RECOVERY PHASE	• Right arm push with elbow relatively close to body and arm directing the push towards the feet. • Left hand entry before the end of the right arm push. • Timing off right arm pushing with kicking actions. • Peak speed reached at end of pushing phase.		
	FULL STROKE CYCLE	• Body movements optimized to minimize creation of unnecessary waves. • Shoulders work in coordinated rhythm to assist in the application of force onto the water. • Core remains engaged to optimize arm propulsion while stabilizing the body through kicking actions. • Stroke length achieved through extension in recovery.		

APPENDIX A – STAGE-BY-STAGE – TECHNICAL BENCHMARKS

IDEAL SWIMMING TECHNIQUE BENCHMARKS CREATED THAT SHOULD BE OBSERVED BY THE TRAIN TO TRAIN STAGE AND MAINTAINED THROUGHOUT TRAIN TO COMPETE, TRAIN TO WIN, AND COMPETITIVE FOR LIFE STAGES.

LTAD STAGE	IDEAL SWIMMING TECHNIQUE	TRAIN TO TRAIN (T2T) PERIOD OF PUBERTY FEMALE AND MALE	TRAIN TO COMPETE (T2C) PERFORMANCE PATHWAY COMPETITIVE FOR LIFE	TRAIN TO WIN (T2W) PERFORMANCE PATHWAY COMPETITIVE FOR LIFE
POSTURE BALANCE RECOVERY ANCHOR ACCELERATION (BUTTERFLY)	ARMS PULLING PHASE	• The hands should be lower than the shoulders. • Entry kick finishes while hands run forward (before outsweep). • Catch with elbows high.		
	ARMS PUSHING WITH LEG KICK PHASE	• Elbows lead hands slightly into the pushing phase. • Chin moves forward in preparation for breath during the pushing phase. • Push finishes in time with the kick. • Peak speed reached at end of pushing phase.		
	ARMS RECOVERY PHASE	• Maintain a relatively flat body position during recovery. • Mid-point of arm recovery has hands, elbows, and shoulders in sagittal alignment. • Hands enter and run forward in front of shoulders.		
	FULL STROKE CYCLE	• Body movements optimized to minimize creation of unnecessary waves. • Breath timing used to help maintain relatively flat overall body line. • Core remains engaged to optimize arm propulsion while stabilizing the body through kicking actions. • Stroke length achieved through maintaining relatively straight leg kick and not pressing the chest down during hand entry		

LTAD STAGE	IDEAL SWIMMING TECHNIQUE	TRAIN TO TRAIN (T2T) PERIOD OF PUBERTY FEMALE AND MALE	TRAIN TO COMPETE (T2C) PERFORMANCE PATHWAY COMPETITIVE FOR LIFE	TRAIN TO WIN (T2W) PERFORMANCE PATHWAY COMPETITIVE FOR LIFE
POSTURE BALANCE RECOVERY ANCHOR ACCELERATION (BREASTSTROKE)	LEG KICK PHASE	• Kick into streamline, with arms stretched forward. • Recover the heels, not the knees, so the shins are vertical with heels close to buttocks. • Accelerate recovery to help with external rotation into pushing phase of kick. • Accelerate the finish if the kick to maintain relatively high foot and leg position.		
	ARM PULL PHASE	• Glide into the arm actions. • Out sweep wide with high elbows. • Maximum length of pull ends as hands approach the shoulder line. • Position and action of elbows (close to the body) • Forward speed (rising max high) • Elbows move into the body as hands skull in. • Peak forward speed achieved.		
	ARMS RECOVERY & LEGS FLEXION PHASE	• Initiate the recovery without dropping the overall body line. • Hands recover at surface, with elbows still in the water. • Recovery of legs into the kick begins. • Maintain forward speed by stretching into streamline without 'diving' down onto the front of the stroke.		
	FULL STROKE CYCLE	• Body movements optimized to minimize creation of unnecessary waves. • Breath timing used to help maintain relatively flat overall body line. • Core remains engaged to optimize arm propulsion while stabilizing the body through kicking actions. • Stroke length achieved through maintaining relatively high body position in the water.		

APPENDIX A – STAGE-BY-STAGE – TECHNICAL BENCHMARKS

IDEAL SWIMMING TECHNIQUE BENCHMARKS CREATED THAT SHOULD BE OBSERVED BY THE TRAIN TO TRAIN STAGE AND MAINTAINED THROUGHOUT TRAIN TO COMPETE, TRAIN TO WIN, AND COMPETITIVE FOR LIFE STAGES.

LTAD STAGE	IDEAL SWIMMING TECHNIQUE	TRAIN TO TRAIN (T2T) PERIOD OF PUBERTY FEMALE AND MALE	TRAIN TO COMPETE (T2C) PERFORMANCE PATHWAY COMPETITIVE FOR LIFE	TRAIN TO WIN (T2W) PERFORMANCE PATHWAY COMPETITIVE FOR LIFE
POSTURE BALANCE (START)	ZERO POSITION	• Legs staggered, feet apart, toes forward • Back foot in solid contact with wedge • Arms long • Shoulders above or in front of hands • Head neutral • Hips high		
	PUSHING PHASE	• Immediate forward hip movement • Full push with back leg • Head remains neutral • Arms recover bent • Arms extend in time with front leg		
	FLIGHT PHASE	• Bottom leg lifts to top leg position • Arms extending in front of face to water • Head aligned between arms • Hands together before contact with water		
	ENTRY POINT	• Maintain streamline • Legs enter along the same path as body • Feet and ankles fully extended • Entire body enters through single hole		
	UNDERWATER	• Maintain streamline • Glide before kicking • Kick with constant high rate & low amplitude • Hips remain fixed through finish of kick • Last kick in time with first catch • Neutral head through breakout		

LTAD STAGE	IDEAL SWIMMING TECHNIQUE	TRAIN TO TRAIN (T2T) PERIOD OF PUBERTY FEMALE AND MALE	TRAIN TO COMPETE (T2C) PERFORMANCE PATHWAY COMPETITIVE FOR LIFE	TRAIN TO WIN (T2W) PERFORMANCE PATHWAY COMPETITIVE FOR LIFE
POSTURE BALANCE (BREASTSTROKE)	ZERO POSITION	• Legs staggered, feet apart, toes forward • Back foot in solid contact with wedge • Arms long • Shoulders above or in front of hands • Head neutral • Hips high		
	PUSHING PHASE	• Immediate forward hip movement • Full push with back leg • Head remains neutral • Arms recover bent • Arms extend in time with front leg		
	FLIGHT PHASE	• Bottom leg lifts to top leg position • Arms extending in front of face to water • Head aligned between arms • Hands together before contact with water		
	ENTRY POINT	• Maintain streamline • Legs enter along the same path as body • Feet and ankles fully extended • Entire body enters through single hole		
	UNDERWATER	• Maintain streamline • Glide before pullout • Initiate pull with fingers going down • Neck fully extended in streamline after pull • Hands recover to face before feet recover • Breaststroke kick has knees pointing back		

APPENDIX A – STAGE-BY-STAGE – TECHNICAL BENCHMARKS

IDEAL SWIMMING TECHNIQUE BENCHMARKS CREATED THAT SHOULD BE OBSERVED BY THE TRAIN TO TRAIN STAGE AND MAINTAINED THROUGHOUT TRAIN TO COMPETE, TRAIN TO WIN, AND COMPETITIVE FOR LIFE STAGES.

LTAD STAGE	IDEAL SWIMMING TECHNIQUE	TRAIN TO TRAIN (T2T) PERIOD OF PUBERTY FEMALE AND MALE	TRAIN TO COMPETE (T2C) PERFORMANCE PATHWAY COMPETITIVE FOR LIFE	TRAIN TO WIN (T2W) PERFORMANCE PATHWAY COMPETITIVE FOR LIFE
POSTURE BALANCE (BUTTERFLY)	ZERO POSITION	• Hips close to wall • Toes at least at water surface • Back upright • Head neutral		
	PUSHING PHASE	• Immediate backwards movement of head/back • Hip drive raises butt clear of water • Leg drive begins after butt clear of water • Leg drive finishes with body parallel to surface • Arms extend in time with pushing actions		
	FLIGHT PHASE AND ENTRY POINT	• Back arched over water • Hands together before contact with water • Head aligned between arms • Legs/feet fully clear the water • Maintain streamline • Legs enter along the same path as body • Feet and ankles fully extended • Entire body enters through single hole		
	UNDERWATER	• Maintain streamline • Glide before kicking • Kick with constant high rate and low amplitude • Hips remain fixed through finish of kick • Last kick timed with first catch • First catch with nose at surface • Neutral head through breakout		

LTAD STAGE	IDEAL SWIMMING TECHNIQUE	TRAIN TO TRAIN (T2T) PERIOD OF PUBERTY FEMALE AND MALE	TRAIN TO COMPETE (T2C) PERFORMANCE PATHWAY COMPETITIVE FOR LIFE	TRAIN TO WIN (T2W) PERFORMANCE PATHWAY COMPETITIVE FOR LIFE
POSTURE BALANCE (FREESTYLE)	APPROACH & ROTATION	• Maintain swimming speed and SR • Keep head down looking at bottom of the pool • Last stroke is full and deep (re: regular stroke) • Initiate bend from waist, follow instroke hand • Hips remain at surface of the water • Knees gather to abdomen		
	CONTACT & PUSHING PHASE	• Feet hip width apart • Arms extended in streamline at contact • Flat back with hips tucked • Maintain streamline throughout push • Push with no twisting		
	UNDERWATER & BREAKOUT	• Maintain streamline • Glide before kicking • Kick with constant high rate and low amplitude • Use dolphin/fish kick to transition to stomach • Hips remain fixed through finish of kick • Last kick in time with first catch • Transition to flutter kick after first catch • Neutral head through breakout • Maintain length throughout breakout		

APPENDIX A – STAGE-BY-STAGE – TECHNICAL BENCHMARKS

IDEAL SWIMMING TECHNIQUE BENCHMARKS CREATED THAT SHOULD BE OBSERVED BY THE TRAIN TO TRAIN STAGE AND MAINTAINED THROUGHOUT TRAIN TO COMPETE, TRAIN TO WIN, AND COMPETITIVE FOR LIFE STAGES.

LTAD STAGE	IDEAL SWIMMING TECHNIQUE	TRAIN TO TRAIN (T2T) PERIOD OF PUBERTY FEMALE AND MALE	TRAIN TO COMPETE (T2C) PERFORMANCE PATHWAY COMPETITIVE FOR LIFE	TRAIN TO WIN (T2W) PERFORMANCE PATHWAY COMPETITIVE FOR LIFE
POSTURE BALANCE (BACKSTROKE)	APPROACH & ROTATION	• Maintain swimming speed and SR • Roll-over stroke has fingers pointing down • Keep head down looking at bottom of pool • Last stroke is full and deep (freestyle stroke) • Initiate bend from waist, follow instroke hand • Hips remain at surface of the water • Knees gather to abdomen		
	CONTACT & PUSHING PHASE	• Feet hip width apart • Arms extended in streamline at contact • Flat back with hips tucked • Maintain streamline throughout push		
	UNDERWATER & BREAKOUT	• Maintain streamline • Glide before kicking • Kick with constant high rate and low amplitude • Hips remain fixed through finish of kick • Last kick in time with first catch • First catch with nose at surface • Transition to flutter kick after first catch • Neutral head through breakout • Maintain length throughout breakout		

LTAD STAGE	IDEAL SWIMMING TECHNIQUE	TRAIN TO TRAIN (T2T) PERIOD OF PUBERTY FEMALE AND MALE	TRAIN TO COMPETE (T2C) PERFORMANCE PATHWAY COMPETITIVE FOR LIFE	TRAIN TO WIN (T2W) PERFORMANCE PATHWAY COMPETITIVE FOR LIFE
POSTURE BALANCE (BREASTSTROKE)	APPROACH & ROTATION	• Maintain swimming speed and SR • Finish on full stroke • Keep body flat on the surface of the water • Hands touch simultaneously • Shoulders stay square to wall as one hand drops • As dropped hand passes hip, shoulder turns • Legs pass under torso • Legs extend to wall as body falls back and away		
	CONTACT & PUSHING PHASE	• Feet hip width apart • Arms extended in streamline at contact • Flat back with hips tucked • Maintain streamline throughout push • Push with no twisting		
	UNDERWATER & BREAKOUT	• Maintain streamline • Glide before pullout • Initiate pull with fingers going down • Neck fully extended in streamline after pull • Hands recover to face before feet recover • Breaststroke kick has knees pointing back		

APPENDIX A – STAGE-BY-STAGE – TECHNICAL BENCHMARKS

IDEAL SWIMMING TECHNIQUE BENCHMARKS CREATED THAT SHOULD BE OBSERVED BY THE TRAIN TO TRAIN STAGE AND MAINTAINED THROUGHOUT TRAIN TO COMPETE, TRAIN TO WIN, AND COMPETITIVE FOR LIFE STAGES.

LTAD STAGE	IDEAL SWIMMING TECHNIQUE	TRAIN TO TRAIN (T2T) PERIOD OF PUBERTY FEMALE AND MALE	TRAIN TO COMPETE (T2C) PERFORMANCE PATHWAY COMPETITIVE FOR LIFE	TRAIN TO WIN (T2W) PERFORMANCE PATHWAY COMPETITIVE FOR LIFE
POSTURE BALANCE (BUTTERFLY)	APPROACH & ROTATION	• Maintain swimming speed and SR • Finish on full stroke • Keep body flat on the surface of the water • Hands touch simultaneously • Shoulders stay square to wall as one hand drops • As dropped hand passes hip, shoulder turns • Legs pass under torso • Legs extend to wall as body falls back and away		
	CONTACT & PUSHING PHASE	• Feet hip width apart • Arms extended in streamline at contact • Flat back with hips tucked • Maintain streamline throughout push • Push with no twisting		
	UNDERWATER & BREAKOUT	• Maintain streamline • Glide before kicking • Kick with constant high rate and low amplitude • Hips remain fixed through finish of kick • Last kick in time with first catch • Neutral head through breakout		

LTAD STAGE	IDEAL SWIMMING TECHNIQUE	TRAIN TO TRAIN (T2T) PERIOD OF PUBERTY FEMALE AND MALE	TRAIN TO COMPETE (T2C) PERFORMANCE PATHWAY COMPETITIVE FOR LIFE	TRAIN TO WIN (T2W) PERFORMANCE PATHWAY COMPETITIVE FOR LIFE
POSTURE BALANCE	APPROACH & ROTATION	• Maintain swimming speed and SR • Finish on full stroke • Keep body flat on the surface of the water • Hands touch simultaneously • Shoulders stay square to wall as one hand drops • As dropped hand passes hip, shoulder turns • Legs pass under torso • Legs extend to wall as body falls back and away		
	CONTACT & PUSHING PHASE	• Feet hip width apart • Arms extended in streamline at contact • Flat back with hips tucked • Maintain streamline throughout push • Push with no twisting		
	UNDERWATER & BREAKOUT	• Maintain streamline • Glide before kicking • Kick with constant high rate and low amplitude • Hips remain fixed through finish of kick • Last kick in time with first catch • First catch with nose at surface • Transition to flutter kick after first catch • Neutral head through breakout • Maintain length throughout breakout		

APPENDIX A – STAGE-BY-STAGE – TECHNICAL BENCHMARKS

IDEAL SWIMMING TECHNIQUE BENCHMARKS CREATED THAT SHOULD BE OBSERVED BY THE TRAIN TO TRAIN STAGE AND MAINTAINED THROUGHOUT TRAIN TO COMPETE, TRAIN TO WIN, AND COMPETITIVE FOR LIFE STAGES.

LTAD STAGE	IDEAL SWIMMING TECHNIQUE	TRAIN TO TRAIN (T2T) PERIOD OF PUBERTY FEMALE AND MALE	TRAIN TO COMPETE (T2C) PERFORMANCE PATHWAY COMPETITIVE FOR LIFE	TRAIN TO WIN (T2W) PERFORMANCE PATHWAY COMPETITIVE FOR LIFE
POSTURE BALANCE	APPROACH & ROTATION	• Maintain swimming speed and SR • Finish on full extension, shoulders under 90deg • Roll to touch, shoulders under 90deg until touch • After touch bend at waist to initiate rotation • Legs gather to abdomen • Legs pass from over to the side of body • Legs extend to wall with body on side		
	CONTACT & PUSHING PHASE	• Feet hip width apart • Arms extended in streamline at contact • Flat back with hips tucked • Maintain streamline throughout push • Push with no twisting		
	UNDERWATER & BREAKOUT	• Maintain streamline • Glide before pullout • Initiate pull with fingers going down • Neck fully extended in streamline after pull • Hands recover to face before feet recover • Breaststroke kick has knees pointing back		

LTAD STAGE	IDEAL SWIMMING TECHNIQUE	TRAIN TO TRAIN (T2T) PERIOD OF PUBERTY FEMALE AND MALE	TRAIN TO COMPETE (T2C) PERFORMANCE PATHWAY COMPETITIVE FOR LIFE	TRAIN TO WIN (T2W) PERFORMANCE PATHWAY COMPETITIVE FOR LIFE
POSTURE BALANCE	APPROACH & ROTATION	• Maintain swimming speed and SR • Finish on full stroke • Keep body flat on the surface of the water • Hands touch simultaneously • Shoulders stay square to wall as one hand drops • As dropped hand passes hip, shoulder turns • Legs pass under torso • Legs extend to wall as body falls back and away		
	CONTACT & PUSHING PHASE	• Feet hip width apart • Arms extended in streamline at contact • Flat back with hips tucked • Maintain streamline throughout push • Push with no twisting		
	UNDERWATER & BREAKOUT	• Maintain streamline • Glide before kicking • Kick with constant high rate and low amplitude • Use dolphin/fish kick to transition to stomach • Hips remain fixed through finish of kick • Last kick in time with first catch • Transition to flutter kick after first catch • Neutral head through breakout • Maintain length throughout breakout		

APPENDIX B – PARA-SWIMMING CLASSIFICATION

CLASSIFICATION

In able-bodied swimming at the highest level, there are two classes – males and females. The sexes compete in different races because it would generally be unfair for the females to race against the bigger and stronger males.

In swimming for persons with impairments, there is also an attempt to make competition fairer, by grouping athletes with a similar degree of impairment into classes. This process is call classification, and swimmers are currently placed in one of 14 classifications.

The process of classification is complex and often contentious, and is beyond the scope of this document; however, from a Long-Term Athlete Development perspective it is important that:

- Athletes need to be classified as accurately as possible as early in their swimming career as possible because incorrect classification can be devastating. Classification in swimming is undertaken at the Provincial, National, and International level, and when classification errors are made the error most often places an athlete in a class that has MORE impairment (lower performance) than the one they should be in. When such a misclassified athlete is moved to their correct class - which often happens when they compete internationally for the first time) they find themselves competing against less impaired and higher performing athletes than they are used to and this can lead to them dropping out of the sport because they are not as good as they thought they were.
- Athletes understand the level of competition to which they can aspire. While any athlete with any disability can swim for health and enjoyment, only athletes with physical, visual or intellectual impairments can compete at the highest levels – World Championships and Paralympic Summer Games.

Letters and numbers are used to identify the different classes. The higher the number the less the impairment, and the following prefixes stand for the stroke:

- S = Freestyle, backstroke and butterfly classes
- SB = Breast Stroke classes, and
- SM = Individual Medley classes

SPORT CLASSES 1-10: PHYSICAL IMPAIRMENT

Athletes with different impairments compete against each other. The impact of their impairment on swim performance, however, is similar. There are 10 different S and SM sport classes and nine SB sport classes for athletes with a physical impairment, numbered 1-9. A lower number indicates a more severe activity limitation than a higher number.

The following gives a few examples of impairments described in each sport class profile. The final decision of a sport class will depend on the classification outcome as described in Classification Rules and Regulations.

- **S1 SB1 SM1** Swimmers in this sport class have a significant loss of muscle power or control in their legs, arms and hands. Some athletes also have limited trunk control, as it may occur with tetraplegia. These impairments may be caused by spinal-cord injuries or polio. Swimmers in this class usually use a wheelchair in daily life.
- **S2 SB1 SM2** Swimmers in this sport class are able to use their arms with limited to no use of their hands, legs or trunk or have severe co-ordination problems in four limbs. As in sport class S1 SB1 SM1, athletes mostly only compete in backstroke events.
- **S3 SB2 SM3** This sport class includes athletes with amputations of all four limbs. Swimmers with reasonable arm strokes but no use of their legs or trunk and swimmers with severe co- ordination problems in all limbs are also included in this sport class.
- **S4 SB3 SM4** Swimmers who can use their arms and have minimal weakness in their hands, but cannot use their trunk or legs. Athletes with amputations of three limbs also swim in this sport class.
- **S5 SB4 SM5** Swimmers with short stature or an additional impairment, with loss of control over one side of their body (hemiplegia) or with paraplegia compete in this sport class.
- **S6 SB5 SM6** This sport class includes swimmers with short stature, amputations of both arms or moderate co-ordination problems on one side of their body.

- **S7 SB6 SM7** Athletes in the class have one leg and one arm amputation on opposite sides, double leg amputations or a paralysis of one arm and one leg on the same side. Moreover, swimmers with full control over arms and trunk and some leg function can compete in this class.
- **S8 SB7 SM8** Swimmers who have lost either both hands or one arm are eligible to compete in this sport class. Also, athletes with severe restrictions in the joints of the lower limbs could compete in this sport class.
- **S9 SB8 SM9** Athletes in this sport class swim with joint restrictions in one leg, double below-the-knee amputations or an amputation of one leg.
- **S10 SB9 SM10** This class describes the minimal impairments of eligible swimmers with physical impairment. Eligible impairments would be the loss of a hand or both feet and a significantly limited function of one hip joint

VISUAL IMPAIRMENT

- **S11 SB11 SM11** Swimmers have a complete or nearly complete loss of sight. By way of explanation, their level of visual acuity is such that the athlete cannot recognize the letter “E” (15x15cm in size) from a distance of 25cm. Athletes in sport class S11/SB11/SM11 compete with blackened goggles.
- **S12 SB12 SM12** These swimmers have a higher visual acuity than athletes competing in the S11/SB11/SM11 sport class, but they are unable to recognize the letter “E” from a distance of 4m.

Moreover, athletes with a visual field of less than 10 degrees’ diameter are eligible for this sport class.

- **S13 SB13 SM13** This is for swimmers with the least severe visual impairment eligible for swimming. Eligible athletes either have a restricted visual field of less than 40 degrees diameter or a low visual acuity.

INTELLECTUAL IMPAIRMENT

- **S14 SB14 SM14** Swimmers with intellectual impairment who also meet the sport-specific criteria compete in sport class S14/SB14/SM14

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