

FUNDAMENTOS DEL PIRAGÜISMO

TEMA 1

Generalidades del Piragüismo

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- El piragüismo.
- Especialidades.

BIBLIOGRAFÍA

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Generalidades del Piragüismo

El Piragüismo



Piragüista es el tripulante de una piragua, sea cual fuere el tipo de embarcación que utilice. El piragüista navega en dirección a la marcha e impulsa la piragua por medio de una pala sencilla (canoa o balsa) o doble (kayak). Las palas no podrán en ningún caso estar fijadas sobre la embarcación. (Artículo 20. Reglamento General y Técnico de la Real Federación Española de Piragüismo. Versión 5 junio 2009).



Generalidades del Piragüismo

El Piragüismo



- Navegación hacia delante y las palas nunca se encuentran fijadas a la embarcación → diferencias remo
- Dos especialidades principales: la canoa y el kayak



Generalidades del Piragüismo

Especialidades



- Aguas Tranquilas
- Slalom
- Aguas Bravas
- Descensos, Ascensos y Travesías
- Maratón
- Piragüismo Turístico
- Kayak polo
- Rafting
- Juegos náuticos
- Kayak de Mar
- Kayak Surf
- Piragüismo Extremo
- Estilo Libre





Generalidades del Piragüismo

Especialidades



AGUAS TRANQUILAS:

- Carreras de velocidad en línea
- Carreras de fondo en línea
- Ascensos, descensos y travesías
- Maratón

DRAGONBOAT

PIRAGÜISMO EN MAR:

- Kayak de Mar
- Surf Ski
- Kayak Surf
- *Outrigger – Va'a*

PIRAGÜISMO
DE RECREO

AGUAS BRAVAS:

- Slalom
- Descenso
- Estilo libre
- Piragüismo extremo
- Rafting
- Hidrotrineo

CANOA A VELA

KAYAK POLO



Generalidades del Piragüismo

Dificultad de las aguas

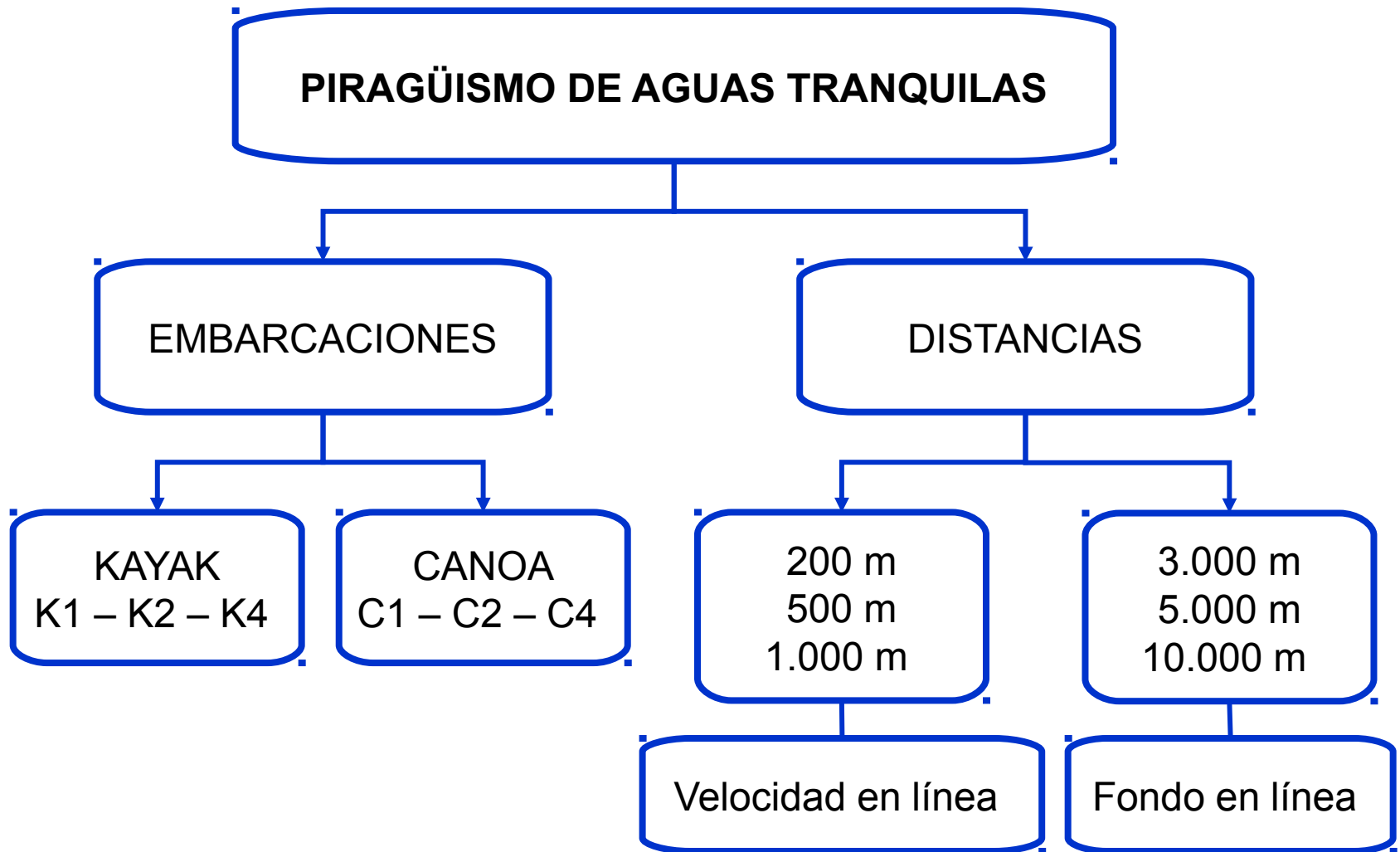


- **Nivel I.** Fácil. Aguas tranquilas sin ninguna dificultad de navegación.
- **Nivel II.** Pequeñas dificultades, con corrientes, presas y rápidos sin dificultad. No aptos para embarcaciones de pista o velocidad. Aconsejable el uso de chaleco salvavidas y casco.
- **Nivel III.** Navegación difícil. Es obligatorio a partir de este Nivel el casco y el chaleco salvavidas. Corriente viva, rápidos francos, exigen dominio de la embarcación. No aptos para embarcaciones de pista o velocidad.
- **Nivel IV.** Muy difícil. Pero sin peligro para palistas entrenados. No aptos para embarcaciones de pista o velocidad. Obligatorio el uso de chaleco salvavidas y casco.
- **Nivel V.** Navegación extremadamente difícil. Peligroso. Sólo para palistas perfectamente entrenados y preparados. No apto para embarcaciones de pista o velocidad. Obligatorio el uso de chaleco salvavidas y casco.
- **Nivel VI.** Infranqueable. Impracticable. Sin posibilidad de navegación.



Generalidades del Piragüismo

Aguas Tranquilas





Generalidades del Piragüismo

Aguas Tranquilas. Velocidad en línea



- Salida en línea y hasta 1.000 m
- Campo de regatas de 9 calles
- Sistema de eliminatorias y finales





Generalidades del Piragüismo

Aguas Tranquilas. Velocidad en línea



Hasta 2008:

Competición Olímpica		
	m 500	m 1.000
Mujer Kayak	K1, K2 y K4	
Hombre Canoa	C1 y C2	C1 y C2
Hombre Kayak	K1 y K2	K1, K2 y K4

Competición No Olímpica*		
200 m	500 m	1.000 m
K1, K2 y K4	K1, K2 y K4	K1, K2 y K4
C1, C2 y C4	C1, C2 y C4	C1, C2 y C4
K1, K2 y K4	K1, K2 y K4	K1, K2 y K4

*Campeonatos del Mundo



Generalidades del Piragüismo

Aguas Tranquilas. Velocidad en línea



En 2009:

Competición Olímpica 2012				Competición No Olímpica*			
	m 200	m 500	m 1.000	Relevos 4x200 m	200 m	500 m	1.000 m
Mujer Kayak	K1	K1, K2 y K4		K1	K1, K2 y K4	K1, K2 y K4	K1 y K2
Hombre Canoa	C1		C1 y C2	C1	C1, C2 y C4	C1 y C2	C1, C2 y C4
Hombre Kayak	K1 y K2		K1, K2 y K4	K1	K1, K2 y K4	K1 y K2	K1, K2 y K4

*Campeonatos del Mundo

De 2010 en adelante:

Eliminación de una prueba de hombres kayak, hombres canoa y mujeres kayak, e inclusión de las pruebas H-K1, H-C1 y M-K1 sobre 5.000 m.



Generalidades del Piragüismo

Aguas Tranquilas. Fondo en línea



- Salida en línea
- Campo de regatas sin calles
- Varias vueltas a un circuito
- 3.000, 5.000 y 10.000 m





Generalidades del Piragüismo

Aguas Tranquilas. Ascensos, descensos y travesías

- Salida en línea
- En ríos, lagos, embalses y zonas costeras
- Dificultad de las aguas leve (nivel I y II)
- Distancias de competición variadas



Fotos: Fernando Alacid



Foto: Clive Reid flickr



Foto: Vetto flickr



Generalidades del Piragüismo

Aguas Tranquilas. Maratón

- Recorrido de larga distancia, en aguas no sujetas a prescripciones estándar
- Realización de porteos



Foto: Óscar Santos Cuesta [flickr](#)



Fotos: Vetto [flickr](#)





Generalidades del Piragüismo

Aguas Bravas. Slalom



- Recorrido de aguas bravas (nivel III a V) en el menor tiempo posible.
- Franquear puertas a favor y contra corriente.
- 250 a 400 m, 18 a 25 puertas (6 al menos contra corriente).
- K1, C1, C2 y patrullas. JJ.OO.: K1 hombres y mujeres, C1 y C2 hombres.



Foto: Kremslot [flickr](#)



Foto: Vetto [flickr](#)



Generalidades del Piragüismo

Aguas Bravas. Descenso

- Recorrido de aguas bravas (nivel III a V) en el menor tiempo posible.
- Al menos 3.000 m a favor de la corriente.
- K1, C1, C2 y patrullas.



Fotos: Óscar Santos Cuesta [flickr](#)



Generalidades del Piragüismo

Aguas Bravas. Estilo libre (Free style)

- Realización de acrobacias o figuras en una ola o rulo de un río.
- En mangas de 45 segundos, con puntuaciones de variedad y técnica.
- K1, C1 (canoa cerrada), OC1 (canoa abierta) y *Squirt*.



Foto: Robbie's Photo Art [flickr](#)



Foto: Kremslot [flickr](#)



Generalidades del Piragüismo

Aguas Bravas. Estilo libre (Free style). Squirt



- Realización de acrobacias o figuras en un kayak de muy poco volumen.



Fotos: Tomwardill [flickr](#)



Generalidades del Piragüismo

Aguas Bravas. Hidrotrineo

- Descenso de ríos apoyando el torso sobre un trineo y propulsándose con aletas.



Foto: Kremslot [flickr](#)

Foto: Kalahariaventuras [flickr](#)



Generalidades del Piragüismo

Aguas Bravas. Piragüismo extremo



- Descensos por ríos que requieren un alto nivel técnico.



Foto: Erik Meldrum [flickr](#)



Foto: David Priddy [flickr](#)



Foto: SarahMcD [flickr](#)



Generalidades del Piragüismo

Aguas Bravas. Rafting

- Descensos por ríos con balsas propulsadas con palas de canoa.



Foto: Kalahariaventuras [flickr](#)



Foto: Whitney & Matt Dellinger [flickr](#)



Generalidades del Piragüismo

Piragüismo en mar: kayak de mar

- Realización de travesías en mar abierto o costeando.



Foto: Winkyintheuk [flickr](#)



Fotos: Erik Sjostedt [flickr](#)





Generalidades del Piragüismo

Piragüismo en mar: *surf ski*

- Embarcaciones sit on top muy veloces utilizadas para competir en mar y en salvamento acuático



Foto: Dave Young [flickr](#)



Foto: Fernando Alacid



Generalidades del Piragüismo

Piragüismo en mar: kayak surf

- Surfear las olas con un kayak-surf o un *wave-ski*.



Foto: Kremslot [flickr](#)

Foto: Steve Andersen [flickr](#)



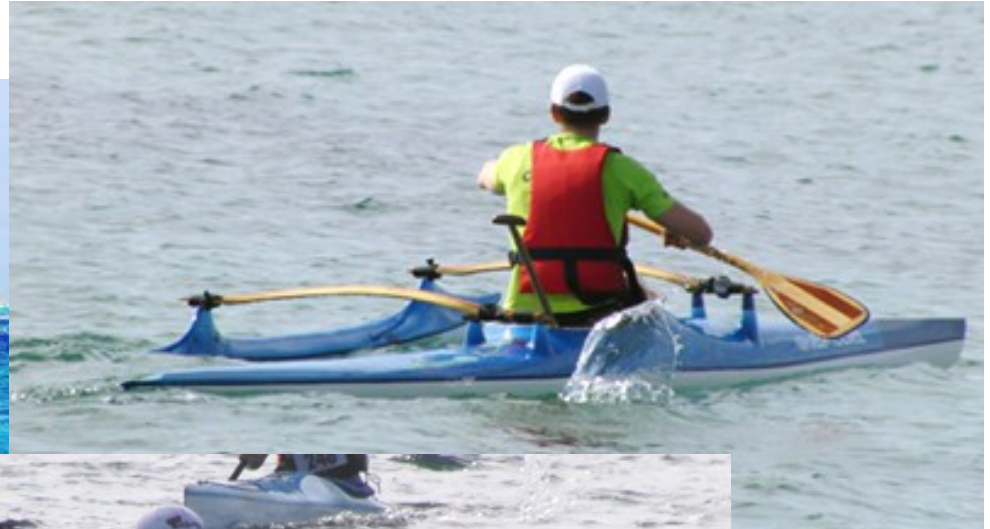
Generalidades del Piragüismo

Piragüismo en mar: *outrigger* y *va'a*

- Embarcación de origen polinesio, con un patín que aporta estabilidad.



Foto: Duncan Rawlinson [flickr](#)



Fotos: Fernando Alacid



Generalidades del Piragüismo

Dragonboat



- Embarcación tradicional china.
- Con un “palista” que marca el ritmo con un tambor y un timonel de pie.
- De 10, 20 ó más palistas.



Foto: Tim Ellis [flickr](#)



Foto: Karl Wright [flickr](#)



Generalidades del Piragüismo

Kayak polo



- Dos equipos de 5 jugadores, 2 tiempos de 10 minutos.
- Campo de 35 x 23 metros, porterías elevadas 2 metros.
- Manejo del balón con la mano, la pala y el kayak.



Foto: Felix388 flickr



Foto: Fernando Alacid



Generalidades del Piragüismo

Canoa a vela

- Especialidad reconocida por la ICF. Vela de 10 m², con asiento móvil.
- La versión competitiva totalmente en desuso en España.
- Adaptación de una vela para el recreo o la competición.



Foto: Ralph Pina [flickr](#)



Katavatic Images



Fotos: K Chisholm [flickr](#)



Generalidades del Piragüismo

Piragüismo de recreo



- Destaca el aspecto NO competitivo.

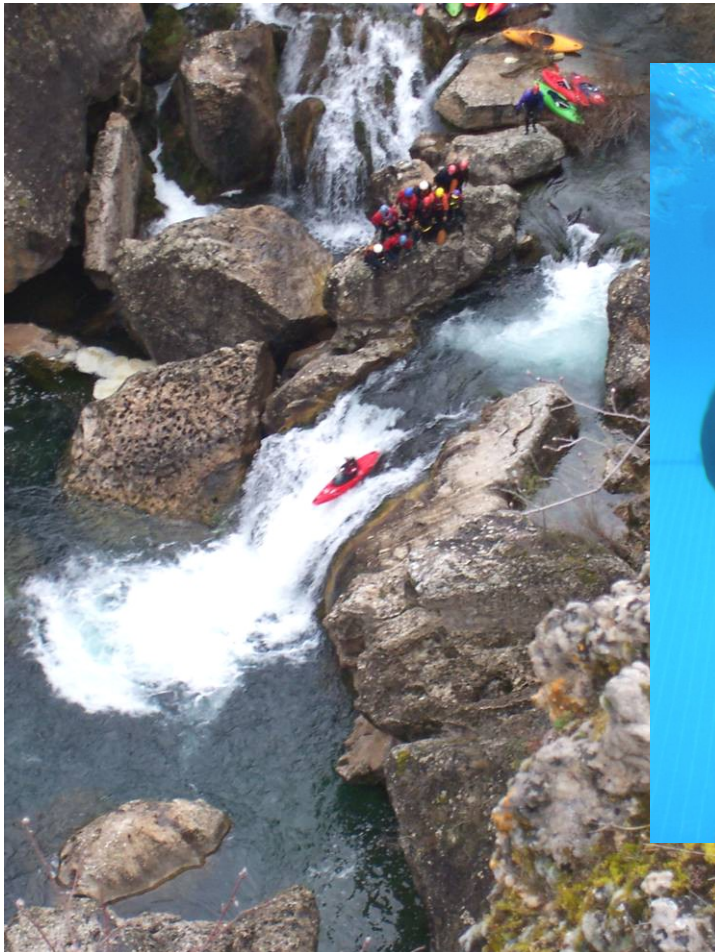


Foto: César Reales



Foto: Fernando Alacid

Long-Term Athlete Development Framework



Active Start

Chronological Age
Males and Females 0-6

- Development of general movement skills
- Not sedentary for more than 60 minutes except when sleeping
- Some organized physical activity
- Exploration of risk and limits in safe environments
- Active movement environment combined with well-structured gymnastics and swimming programs
- Daily physical activity with an emphasis on fun

FUNdamentals

Chronological Age
Males 6-9 and Females 6-8

- Overall movement skills
- General, overall development
- Integrated mental, cognitive and emotional development
- ABCs of athleticism: agility, balance, coordination and speed
- ABCs of athletics: running, jumping, throwing and wheeling for wheelchair sports
- Develop strength through use of own body weight exercises
- Introduce simple rules of fair play and ethics of sport
- Well-structured programs without periodization
- Daily physical activity, still emphasizing fun

Learn to Train

Chronological / Developmental Age
Males 9-12 and Females 8-11

- Overall sport skills development
- Major skill learning stage: all basic sport skills should be learned before entering puberty or the Train to Train stage
- Integrated mental, cognitive and emotional development
- Introduction to mental preparation
- Develop strength through use of own body weight, adding medicine ball and Swiss ball
- Introduce ancillary capacities
- Further identification and development of talents
- Single or double periodization
- Sport-specific training three times per week; participation in other sports three times per week

Train to Train

Chronological / Developmental Age
Males 12-16 and Females 11-15

- Sport-specific skill development
- Major fitness development stage: aerobic, speed and strength
- The onset of the growth spurt, peak height velocity (PHV) (the fastest rate of growth after growth decelerates) and the onset of menarche are the biological markers
- Build the physical and mental engine
- Integrated mental, cognitive and emotional development
- Introduce free weights
- Develop ancillary capacities
- Frequent musculoskeletal evaluations during growth spurt
- Talent identification and selection
- Single or double periodization
- Sport-specific training six - nine times per week, including complementary sports

Train to Compete

Chronological / Developmental Age
Males 16-23 +/- and Females 15-21 +/-

- Sport-, event-, position-specific physical conditioning
- Sport-, event-, position-specific technical tactical preparation
- Sport-, event-, position-specific technical and playing skills under competitive conditions
- Integrated mental, cognitive and emotional development
- Advanced mental preparation
- Optimize ancillary capacities
- Specialization
- Single, double or triple periodization
- Sport-specific technical, tactical and fitness training 9-12 times per week

Train to Win

Chronological Age
Males 19 +/- and Females 18 +/-

- Ages are sport-specific and based on national and international normative data, which represents the average score for a certain factor across various levels of performance (height, weight, etc.)
- Maintenance or improvement of physical capacities
- Further development of technical, tactical and playing skills
- Modelling all possible aspects of competition in training
- Frequent preventative breaks
- Maximize ancillary capacities
- Performance on demand
- Single, double, triple or multiple periodization
- Sport-specific technical, tactical and fitness training 9-15 times per week

Active For Life

Enter at any time after the onset of the growth spurt

Active for Life constitutes three participant-based streams: Competitive for Life, Fit for Life and Sport and Physical Activity Leaders. Participants may be active in multiple streams depending on their involvement in sport and physical activity.

Competitive for Life

- Minimum of 60 minutes moderate daily activity or 30 minutes of intense activity for adults
- Transfer from one sport to another
- Move from highly competitive sport to lifelong competitive sport including age group competition
- Embrace an active lifestyle by participating in organized sport that may be unfamiliar
- Compete at a high level in age-group competitions such as Masters Games

Fit for Life

- Minimum of 60 minutes moderate daily activity or 30 minutes of intense activity for adults
- Move from competitive sport to recreational activities
- Move to sport careers or volunteering
- Maintain an active lifestyle by continuing to participate in organized or non-organized physical activity
- Become active by participating in non-organized sport or physical activity that may be unfamiliar

Sport and Physical Activity Leaders *

- Move from competitive sport to volunteering as coaches, officials or administrators
- Upon retiring from competitive sport, move to sport-related careers such as coaching, officiating, sport administration, small business enterprises or media
- Use experience, whether from previous involvement or education, to help ensure a positive environment for participants
- *Active for Life if physical literacy is achieved before the Train to Train stage*

Figure 2: The Progression of Long-Term Athlete Development Through Canadian Sport for Life

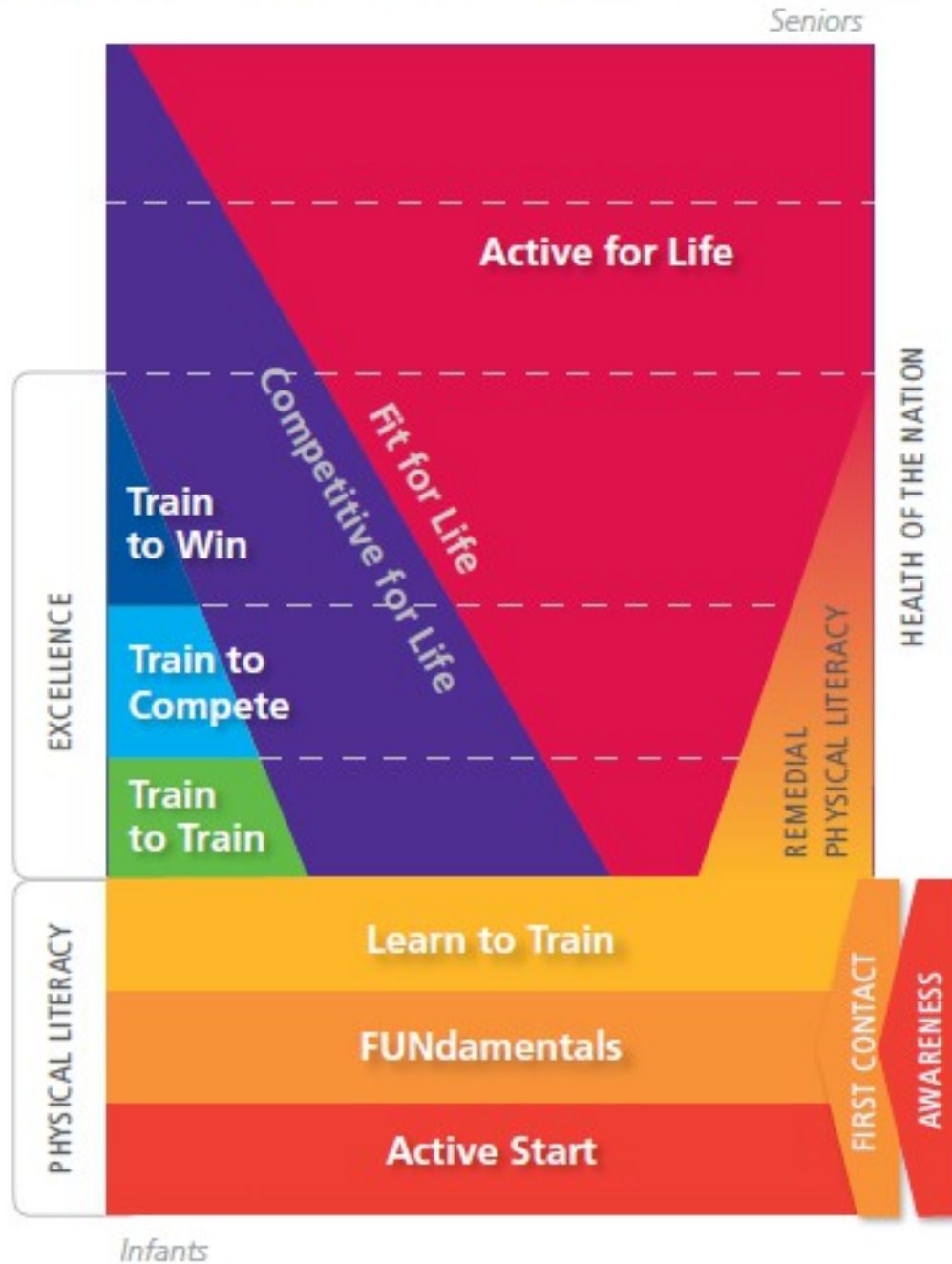


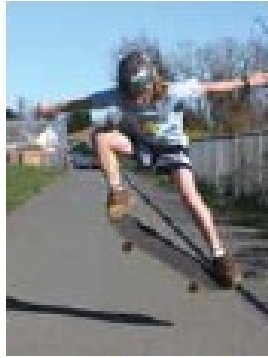
Figure 5: Fundamental Movement Skills and Fundamental Sports Skills



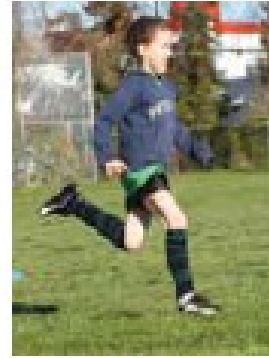
Agility



Balance



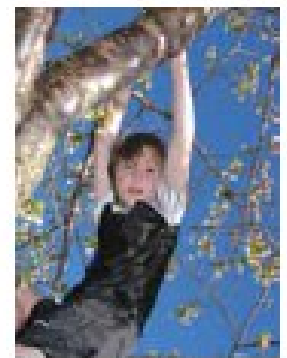
Co-ordination



Speed



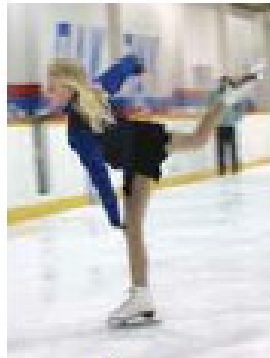
Jumping



Climbing



Walking



Skating



Hopping



Swimming



Skipping



Balance



Throwing



Dribbling



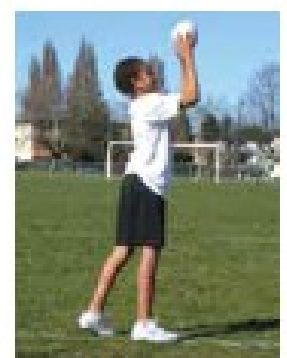
Kicking



Throwing



Hitting



Catching

1. Stamina (Endurance)

The sensitive period for stamina occurs at the onset of the adolescent growth spurt. Aerobic capacity training is recommended before athletes reach PHV. Aerobic power should be introduced progressively after PHV when growth rate decelerates.

2. Strength

The sensitive period for strength in girls is immediately after PHV or at the onset of menarche, while for boys it is 12 to 18 months after PHV.

3. Speed

For boys, the first sensitive period for speed occurs between the ages of 7 and 9 years, and the second occurs between the ages of 13 and 16. For girls, the first sensitive period for speed occurs between the ages of 6 and 8 years, and the second occurs between the ages of 11 and 13.

4. Skill

The sensitive period for optimal skill training generally takes place between the ages of 9 and 12 years for boys and between the ages of 8 and 11 for girls, or more precisely before the onset of adolescent growth spurt (the "skill hungry" years).

5. Suppleness (Flexibility)

The sensitive period for suppleness for both genders occurs between the ages of 6 and 10. Although flexibility training during puberty yields good results, special attention should be paid to flexibility during the adolescent growth spurt, due to stresses on muscles, ligaments and tendons by the rapidly growing bones.

6. Structure/Stature

Stature is the height of a human. In terms of training and performance, it refers to the process where the instructor, coach, teacher or parent records regular measurements before, during and after maturation. The purpose is to track growth and identify the onset of the adolescent growth spurt, PHV and whether athletes are early, average or late maturing. The tracking of stature as a guide to developmental age allows for planning to address the sensitive periods (Viru, 1995; Viru et al., 1998; Viru et al., 1999) of physical development (endurance, strength, speed and flexibility) and skill development. Measurements should be done every three months, measuring standing height, sitting height and arm span.

*(For further information see **The Role of Monitoring Growth in Long-Term Athlete Development** – CSAL Resources p. 74).*

7. Schooling

In designing an effective training program, the demands of school must be considered. These include integrating school academic loads and duties, school related stresses, and the timing of exams. When possible, training camps and competition tours should complement, not conflict, with the timing of major schools academic events.

8. (p)Sychology – Mental Fitness

Mental fitness concepts and strategies can be introduced to athletes at an early age. Initially, this involves instilling foundational principles of positive attitude, positive focus and imagination, while emphasizing effort and fun. As athletes progress through the seven stages of LTAD, mental skills and strategies are introduced and developed to help athletes handle the increasing pressures and demands of competitive sport. The acquisition of mental fitness is a dynamic process that fluctuates depending on

- the time and effort put towards developing the mental skills and attributes, and
- the athletes' openness to self-learning and reflecting on competitive experiences.

In order to provide athletes with the opportunity to reach their personal performance potential, it is imperative that mental fitness be incorporated throughout their long-term development.

*(For further information see **Mental Fitness for Long-Term Athlete Development** – CSAL Resources p. 75).*



9. Sustenance

Training, participation in sport and physical activity and competition can lead to significant levels of fatigue in athletes. Recovery is the process whereby the body rids itself of fatigue. At the same time, the body adapts to the training stimulus and regains the capacity to produce the strength, endurance and power required for other physical activity, training or competition.

10. Socio-Cultural

The socio-cultural aspects of sport are significant and must be managed with proper planning. Socialization via sport will ensure that general societal values and norms are internalized through sport participation. This occurs at the community level and as an athlete progresses through the LTAD stages, leads to international exposure.