



Athletics
Australia[®]

The FIT Model

Training and Competition Guidelines for
Children and Adolescents

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Athletics is one of the premier Olympic sports with almost every school in Australia conducting an athletics carnival, thus exposing most children at some stage in their life to the sport. Recognising the impact that the provision of age and developmentally appropriate athletics experiences can have on long term physical, psychological, social and cognitive development, Athletics Australia (with the support of Little Athletics Australia) released its Position Statement for Children Participating in Athletics in October 2018.

The Position Statement is aimed at ensuring athletics products and activities are best practice, align with holistic child development principles, and provide a clear framework for the delivery of athletics within schools and the broader community. One of the key areas of the Position Statement was to ensure the provision of age appropriate activities and competitions.

It is widely recognised by health professionals that excessive training loads can have a negative effect on the physical development of the child, impeding the proper development of muscles, bones, ligaments and tendons. It can also affect a child's progression through puberty and impact on their physical health through adulthood. Excessive training and competition loads can deter children from continued involvement, impair physical performance in both the short and long term, and impact negatively upon their overall health and wellbeing.

The sporting journey is a long-term process, often likened to a miniature lifespan beginning in childhood, and continuing throughout to adulthood. Whether the goal is lifelong sporting activity or succeeding at the high performance level, an athlete must progress through a series of developmental stages from their early years of participation through to adulthood. At each stage of development the athlete must learn to relate and interact with a new reference group and adapt to new training loads and techniques, while also being required to perform at a higher level. In addition to the physical demands, athletes must manage psychological, social and academic/vocational transitions often occurring at the same time.

Athletics is recognised as a late specialisation sport requiring a more generalised and diverse approach to early training and should provide the platform to develop physical literacy (physical, psychological, social, and cognitive skills and behaviours) conducive to leading long term active lives. From the physical perspective, the focus at early ages (4-9 years) should be on the development of fundamental movement skills, and as children progress developmentally from childhood to early, mid and late adolescence (approximately 10-19 years), the emphasis of training moves to more specific technical skills, increased training loads (volume and intensity) and competition. However, it is important for all stakeholders (administrators, teachers, coaches, athletes and parents) to understand physical stages of development in conjunction with psychological, social and cognitive skill development from pre-adolescence to adulthood, to ensure holistic development, ongoing participation and general health and wellbeing.

To assist the athletics community with understanding different stages of junior athlete development (4 -19 years), and the appropriate training and competition loads and expectations, Athletics Australia has developed some guidelines and recommendations known as the FIT Model. These guidelines are based on research and evidence and have been produced to assist with the understanding and decision making of parents, coaches, administrators and athletes in relation to selecting developmentally appropriate activities for children. It should be noted that children develop at different rates and that there can be significant differences between chronological and developmental age. These recommendations should therefore be used as a guide only and should be considered alongside advice from relevant health professionals.

The FIT Model has been adapted and developed from highly regarded models widely used by multiple sports and nations, including FTEM [Foundation, Talent, Elite, Mastery] (Gulbin, Croser, Morley, and Weissensteiner, 2013; Australian Sports Commission, 2019), the Developmental Model of Sport Participation (Cote and Fraser-Thomas, 2007) and the Long-Term Athlete Development framework (Balyi and sportforlife.ca, 2016, 2019). Athletics Australia's FIT Model is a framework that outlines the recommended types of activities and loads that are most developmentally appropriate for participants. It provides a framework to assess and guide existing and future activities that meet the developmental needs of participants, as well as being an educative tool for parents, coaches, teachers, administrators, and athletes.

The stages of development, including a more detailed explanation and the rationale for the recommendations for each stage are outlined in **Table 1**.

Table 1

Stage of Development	Fundamentals 1	Fundamentals 2	Introduction to Training	Training I (General)	Training II (Specific)
Age Span	Approximately 4 - 7 years	8 - 10 years	10 - 12 years	13 - 15 years	16 - 19 years
Main Focus	<p>Play Stage (~ 4 - 7 yrs)</p> <p>The main focus should be on developing physical literacy. Activities should be fun and games-based where participants are supported to explore and develop fundamental movement skills such as running, jumping and throwing, in an encouraging environment.</p>	<p>Sampling Stage (~ 8 - 12 years)</p> <p>During these years of development children should experience a variety of sports and physical activities focusing on motor development. Activities should be fun and games-based in the early stages becoming more structured, incrementally progressed and developed as children transition from the beginning to end of these two phases. Enjoyment and learning in an environment that prompts inclusiveness and encourages personal improvement will help encourage and motivate children to continue in the sport of athletics.</p>		<p>Specialising Stage (~ 12/13 - 15yrs)</p> <p>While fun and continued involvement in other sports is still important, there is a shift to more sport-specific skill development. There is a greater emphasis on coach driven structured practice designed to improve performance. Competition brings to play an important role in athletes' learning and their ultimate progression to the investment stage but should not be the key focus during this stage</p>	<p>Investment Stage (~ 16 - 19yrs)</p> <p>This stage of development heralds an increased intensity of training and focus on athletics as the main sport. Competition becomes increasingly important providing the opportunity to test skills and improve performances. Social support (coaches, peers and parents) and developing a healthy lifestyle balance are crucial in helping athletes transition from junior to senior levels of athletics</p>
Appropriate activities/training	<p>Fun, learning, acquisition and development of fundamental movement skills (FMS).</p> <p>Includes balance, agility, locomotion (running, hopping, jumping) and ball skills (catching, throwing, kicking) in different movement patterns.</p> <p>Activities in this stage are best delivered through a fun, games-based approach that allows children to explore and develop skills through movement.</p>	<p>Building on FMS through the incorporation of the fundamental athletic skills (running, jumping and throwing)</p> <p>Practice, refine and apply fundamental athletics movement skills in different situations with and without equipment</p> <p>Instilling importance of daily physical activity and a healthy lifestyle in an inclusive and collaborative environment that promotes and supports fun and friendship</p>	<p>Consolidating skills, patterns and techniques necessary for participating in athletics events (running jumping and throwing)</p> <p>Introduce specific athletic event group training appropriate to developmental age (e.g. long jump and high jump. Triple jump should be avoided at this stage of development</p> <p>Introduce structure of training session and promoting positive 'training squad' relationships</p> <p>Flexibility becomes important towards the end of stage due to rapid growth and development phase</p> <p>Begin to integrate other aspects of learning and development, such as mental skills, and nutrition</p>	<p>This is a period of rapid growth and change (physical/emotional and cognitive). Training should be safe and developmentally appropriate for each individual.</p> <p>Young athletes are ready for more structured and specific athletics training (still event group based)</p> <p>Introduce programming for training and competition</p> <p>Greater focus on self-regulation in both physical training and other aspects of development (mental skills, nutrition, recovery)</p>	<p>This is a period when athletes may choose to fully invest in athletics.</p> <p>Focus is now on further developing, refining and advancing athletic skills and technical models as athletes move from mid to late adolescents.</p> <p>There is a greater focus on helping athletes balance social, psychological and cognitive aspects of life with training and competition.</p>
Total recommended daily and weekly physical activity (including athletics)	<p>60 minutes per day of vigorous to moderate intensity activities. This should include a variety of sports and recreational activities as well as unstructured "free play" e.g. backyard cricket, park soccer</p> <p>Approximately 5 - 6 hours of activity per week (50 - 75% child led play, 25 - 35% adult led, 15% instruction)</p>	<p>60 - 90 minutes per day of vigorous to moderate intensity physical activity.</p> <p>Continue involvement in a variety of sports and physical (skilled) activities</p> <p>Approximately 6 - 7 hours of activity per week</p>	<p>60 - 90 minutes per day of vigorous to moderate intensity physical activity.</p> <p>Ongoing involvement in a variety of sports and physical (skilled) activities</p> <p>Approximately 8 - 9 hours of activity per week</p>	<p>60 - 90 minutes per day of vigorous to moderate intensity physical activity.</p> <p>The number of other sports may decrease during this stage in line with increased hours in athletics training and competition</p> <p>Approximately 10 - 12 hours of activity per week</p>	<p>60 - 90 minutes per day of vigorous to moderate intensity physical activity.</p> <p>Reduced involvement (1 - 2 hours per week) in other sports by the end of this stage.</p> <p>Athletics training and competition makes up most of the physical activity hours</p> <p>Approximately 10 - 15 hours of activity per week</p>

Table 1 *Continued*

Stage of Development	Fundamentals 1	Fundamentals 2	Introduction to Training	Training I (General)	Training II (Specific)
Age Span	Approximately 4 - 7 years	8 - 10 years	10 - 12 years	13 - 15 years	16 - 19 years
Recommended duration and frequency for athletics focused session(s)	Between 30 – 45 minutes 1 athletics based session per week School, Kids' Athletics program and Little Athletics centre	Between 40 - 60 minutes 1 - 2 sessions per week School, Kids' Athletics program and Little Athletics centre (this could include one Little Athletics competition = 1 training session)	Between 40 - 60 minutes 2 - 3 sessions per week General athletics event groups skills (school and club with one competition = 1 training session) 70% training 30% competition	Between 45 - 70 minutes 2/3 - 4/5 sessions per week Still focussing on all round event group skills, with a shift towards a greater emphasis on chosen individual events at the end of this stage 60% training 40% competition	Between 60 - 90 minutes 6 - 10 sessions per week Greater focus on event specialisation and competition (dependant on athletic specific skills, fitness capacities and interest) as athletes progress through this stage 50% training 50% competition
Session Content	Suggested activities: See Kids' Athletics (Foundation - Year 2)	Suggested activities: See Kids' Athletics (Years 3 – 4)	Suggested activities: See Kids' Athletics (Years 5 – 6)	Specific athletics training plus various appropriate ancillary/recovery sessions: <ul style="list-style-type: none">• Strength sessions• Swimming• Deep Water running• Yoga/Pilates• Cross training	Specific athletics training plus various appropriate ancillary sessions: <ul style="list-style-type: none">• Strength sessions• Swimming• Deep Water running• Yoga/Pilates• Cross training
Approach to conditioning and development	Broad range of all-round body movement experiences without structured conditioning through games focused activities General low intensity continuous running (e.g. 30 seconds to 3 minutes) Short multi-directional speed and acceleration (5 - 10 seconds) General body strength -jumping / hopping / throwing	Build on all round conditioning and development from the previous stage Begin to focus more on flexibility and physical strength (using medicine balls, swiss balls and own body weight) to ensure optimal range of motion, good posture and technique	Speed development should continue to focus on agility, quickness and segmental speed in a multidirectional manner with movements lasting less than 5 seconds. General aerobic development should continue to be through fun and games, complementing speed development. No lactic training at this stage Build on flexibility and all round body strength from the previous stage	Further development of muscular and cardiovascular endurance, strength, and speed capacity. Lactic training introduced at later stages. Further development of athletics-specific skills and fitness Some weight training to enhance / complement body strength work can be introduced for most young athletes at this stage (if deemed physically ready by qualified professional)	Further development and refinement and of all conditioning and technical aspects of training and competition. Recovery modalities become very important as training loads and demands increase.
Competition Guidelines	No formal individual result based competition Create fun and achievable mini-challenges through activities such as: Beginner Team event "contests" – as per Kids' Athletics (Years F – 2) program	Formal low key team focused, and modified competitions can be introduced later in this stage (age 8 years +) e.g. Kids' Athletics (Years 3 – 4) Intermediate Team event contests and Little Athletics One annual competition season of 4 - 10 weeks is recommended.	Seasonal competitions e.g. Little Athletics, Athletics club or school) e.g. Kids' Athletics (Years 5 – 6) Advanced Team event contests, Little Athletics and/or school cross country/ athletics season One to two annual (e.g. cross country/ athletics) competition seasons of 6 - 12 weeks is recommended. 10 - 16 weeks annual break from all athletics/cross country activities is recommended	Competition should be seasonal (e.g. Little Athletics, Athletics club or school) Up to two competition periods/year e.g. school and club athletics season, or athletics and cross country season 8 - 10 weeks annual break from all athletics/cross country activities is recommended	Up to two competition periods/year e.g. school, club athletics season, or athletics and cross country season. Or club and international competition season 3 - 5 weeks active rest from athletics training and competition is recommended