

Part 1:

A guide to skills development

Physical activity skills manual:

Part 1



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On the way to the fittest kids in the world by 2020

Discovery Vitality has developed this physical activity skills manual for primary schools in South Africa. It gives schools, teachers and coaches important information to ensure that children receive a solid foundation in developing movement skills so they can be active for life.

Professor Tim Noakes of the Sports Science Institute of South Africa has a dream to make South African children the fittest in the world by 2020. He believes that through initiatives like the Vitality Schools Programme we can reach this goal. You too can play a part in making this vision a reality.

The Youth Fitness Charter

The Charter aims to improve the health and quality of life of all young South Africans and promotes physical activity, sport and play to achieve this goal. It contains 10 main points.

- Fundamentals: All South African children and youth have a right to take part in physical activity, sport and play.
- Diversity and nation building: Physical activity, sport and play can help in nation building, integration and the de-racialisation of our society.
- Wellbeing: Physical activity, sport and play are important for children's development and a positive lifestyle.
- Health: All children should be encouraged to take part in physical activity, sport and play to improve their physical fitness.
- Partnerships: Key role players in childhood wellbeing should work together to give children and youth the opportunity to safely take part in physical activity, sport and play.
- **Education and training**: Schools and other education institutions have a responsibility to give children and youth education programmes and opportunities for physical activity, sport and play in a safe and healthy environment.

- **Facilities and infrastructure**: Government, the private sector and communities should make infrastructure available that is safe, has the right equipment and, where needed, can transport children to take part in sport and physical activity.
- 8 Protection: National sporting and regulatory bodies should make programmes available that give key role players the guidelines to help protect children, participating in sport at any level, physically, mentally, socially and emotionally.
- Media: The media should play a positive partin promoting physical activity, sport and play to children.

Research: All programmes, facilities, equipment, sports and physical activity should be thoroughly researched.



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The benefits of physical activity

Both children and adults are becoming increasingly inactive. The dramatic decrease in physical activity in children over the last few decades has had a negative effect on children's health. Regular physical activity plays an important role in the prevention and treatment of many lifestyle-related diseases such as coronary artery disease (CAD), strokes, and type 2 diabetes (non-insulindependent diabetes).

Physical activity for all children and youth in South Africa

Research indicates that South African children and youth are becoming increasingly inactive, for a number of reasons including:

- A lack of safe playing areas and sporting facilities
- A lack of opportunities to be active
- An increase in time spent watching television and using technology-based entertainment
- Insufficient physical activity during the school day.

The benefits of physical activity for children

Health benefits

Children will experience the same benefits of physical activity as adults in preventing disease, however, there are additional benefits for children, namely:

- Physical activity promotes motor and sensory development
- It strengthens bones, muscles, ligaments and tendons as children grow
- It promotes good posture and balance.

Academic benefits

- It stimulates mental development
- Studies have shown that higher academic achievement is associated with higher levels of fitness
- It can make learners more productive, more motivated, better organised and more effective at learning and performing tasks
- It can contribute to learners having better concentration levels in class, improved health and decreased absenteeism.

Social benefits

- Physical activity can help build positive self-esteem in children
- It gives learners access to environments that promote social interaction
- It reduces the likelihood of anti-social behaviour.





The benefits of physical activity for schools and teachers

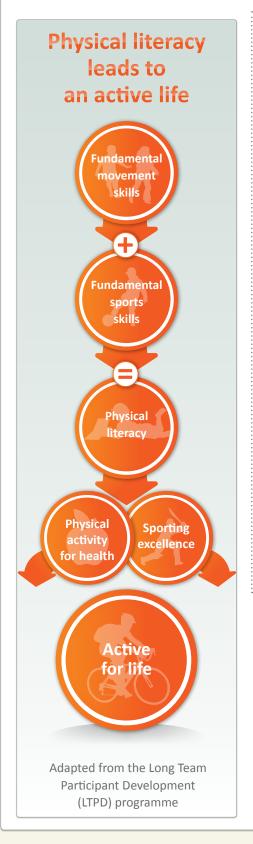
A good-quality physical activity programme, implemented across a school, can result in a more positive school climate, culture and an environment favourable to learning.

Physical activity can lead to stronger teacher-learner relationships and can create stronger links between the school, home and community. This can contribute to a decrease in vandalism, mischief, petty crime and other negative behaviour in the community.

Participation in physical activity from childhood into adulthood is determined, in part, by parents' attitudes towards activity and exercise in the home environment. Learners' experience of participating in physical activity and sport at school can also play a role. There is a need and opportunity for nationwide intervention to limit the rise in inactive behaviour among children by promoting and helping learners to have confidence to take part in physical activity.

School and community programmes are successful

School and community programmes that promote good nutrition and regular physical activity have been shown to have the most success in reducing the risk of chronic diseases associated with inactive lifestyles and the increase in childhood obesity and diabetes. Children can develop a lifelong commitment to an active lifestyle through programmes that give them the knowledge, movement skills, motivation, behaviour skills and confidence to take part in physical activity.



Physical literacy

Understanding physical literacy

Just like children must learn the alphabet to read and write, they must also learn fundamental movement and sport skills to take part successfully in physical activities for life. These basic skills are the building blocks of physical literacy and will allow a child to move confidently, competently and with control through a wide variety of physical activity, rhythmic (such as dance) and sport situations. It also allows a child to look at and understand movements going on around them, causing them to base their decisions on understanding. Research shows that without the development of physical literacy, many learners and youth stop taking part in physical activity and sports. This makes them less active and can cause them to make unhealthy choices during their leisure time.

Promoting physical literacy among learners

Physical literacy doesn't happen automatically. While it is true that some children have the opportunity to develop a wide range of physical skills, there are too many South African children who do not have this opportunity. This may have a lifelong negative impact on them.

Children with better skills and fitness levels play more often and are more active, and through play they develop their skills more. In contrast, children who are less skilled and less fit generally have fewer opportunities to develop their skills. These children fall behind their skilled peers and often stop taking part in physical activities.

To address this, we must create opportunities to develop physical literacy among children in South Africa. These opportunities must be available in a wide range of settings and have as many different people involved as possible.

Teaching the fundamental movement skills

All the fundamental movement skills need to be learned and as children improve and develop their movement abilities, they go through the phases of skills development. It is important that you are able to recognise the characteristics of these phases and which phase the learners in your class are in.



Did you know?

40% of children do little or no moderate to vigorous physical activity in a week.

The best time to learn a skill

To become physically literate, every child must master the fundamental movement skills. There is a series of developmental stages through which children should progress.

Children mature and learn at different rates, but almost all children learn their fundamental movement skills in the same order and go through the same phases.

Research shows that there is an ideal time for children to learn fundamental movement skills, making it quicker and easier to learn. However, one child's best time to learn can differ from another's. Some children start practising walking as as early as 10 months, while others may only be ready at 15 months. Either way, it is the ideal time to start walking.

The longer a child takes to learn a skill the more difficult it becomes to master. The long-term participant development programme encourages children to learn all fundamental movement skills before puberty. There are programmes that can help children overcome a skill-learning gap and make it easier for them to catch up. Generally, the best time frame to learn fundamental movement skills is between the ages of 6 and 11.

Progressive phases in learning skills

Each movement skill is divided into 3 learning phases that progress from simple (exploring and discovering) through to more complex (practising and improving), (mastering and applying). Each child will be at a different phase depending on their development, experience and prior learning.



Beginner - Explore and discover

In this phase children will develop a rough idea of how to perform movement skills. The approach should be playful and supportive because there will be a lot of 'trial and error' learning. Activities for this stage enable children to explore and discover for themselves what is involved in performing a particular movement skill. Safety is a major concern at this stage because the children may not yet have developed the skills and judgement needed to play safely.



Intermediate - Practise and improve

In this phase, children need encouragement to focus their efforts on genuine skill improvement. They can become more efficient and refined in their performance of movement skills through repetition and practice in a variety of contexts.



Mature – Apply and master

In this phase, children will have learned many fundamental movement skills so well that they can perform them 'automatically.' They don't even have to think how to control their bodies. They can now apply movement skills in a variety of ways and combine other movements in more complex games and activities. They can also apply strategies and tactics at this level.



The difference between fundamental movement skills and basic sports skills

A good example of a fundamental movement skill is throwing. Children learning to throw will throw lots of different sized balls with 1 hand or both and at different speeds – sometimes for accuracy and sometimes for distance.

Learning to throw a ball can be the foundation for children to take part in many other sporting activities like cricket. Every sport has a list of basic sport-specific skills that must be learned if children want to play an age-appropriate version of the sport.

For children to take part in a sport successfully – either as a healthy recreational activity or in competition – it is important that they learn the basic sports skills and the rules of the game or sport they will be playing.

Another example of a fundamental movement skill is kicking. Children learn the fundamental kicking action with each foot, as a fundamental movement skill. They will learn to kick a variety of balls with different parts of their foot. They will experiment with kicking the ball far, hitting a target, keeping the ball on the ground and kicking the ball high into the air.

This basic skill can help children to participate confidently in a future sport like soccer. They learn how hard they have to kick the ball to pass it to a team member, how to kick the ball with the inside of their foot to increase passing accuracy and how to direct a shot at goal.

Learning sports

Basic skills that are the building blocks for many of the sports played by the majority of South Africans include running, jumping, catching, kicking, throwing and hitting something with an implement. Children who can perform these fundamental movement skills well can learn many sport-specific skills more easily and quickly than children who try to learn the sport-specific skills without this foundation. Basic sport-specific skills are always associated with a particular sport, which has an effect on how it is practised and the kinds of equipment used during practice sessions.



Did you know? 25% of young people spend more than 3 hours a day watching television.

The long-term development of participants

The long-term participant development model is based on the identification of children who mature early, at an average rate and late, to help understand their optimal trainability and readiness for formal training and competition. Even in the fundamental stage, the maturing stage may affect a child's ability to perform some of the fundamental movement skills. So care should be taken to shape practice activities to the developmental age of the children involved.

The model promotes the tailoring of a child's sport development to suit their stage of physical growth and maturation (developmental age), as well as their psychological and social development.

The model is valuable to South African learners because it impacts on the entire sport community; including participants, parents, coaches, schools, sports clubs, community programmes, sport organisations, sport scientists, universities, industry sponsors, municipalities and several government departments. With the support and involvement of all these parties, the model integrates recreational activity, school sport, physical education in schools, community sport and elite sport.

How physical literacy benefits children

By learning the basic fundamental skills, children will confidently be able to participate in any future sports activities. These benefits are illustrated:





A child who can run skilfully, will be able to take part in:



Soccer Cricket Hockey Rugby Racquet sports Netball Baseball Softball Basketball Athletics

A child who can skip skilfully, will be able to take part in:



Soccer Hockey Rugby Racquet sports Netball Baseball Basketball Athletics

A child who can hop skilfully, will be able to take part in:



Soccer Cricket Rugby Racquet sports Netball Athletics Martial arts Volleyball

A child who can balance skilfully, will be able to take part in:



Soccer Cricket Hockey Rugby Racquet sports Netball Baseball Basketball Athletics Martial arts Waterpolo Diving Volleyball

A child who can jump skilfully, will be able to take part in:



Soccer Cricket Hockey Rugby Racquet sports Netball Baseball Softball Basketball Athletics Diving

A child who can rotate skilfully, will be able to take part in:



Soccer Cricket Hockey Rugby Racquet sports Netball Baseball Softball Basketball Waterpolo Volleyball



A child who can land skilfully, will be able to take part in:



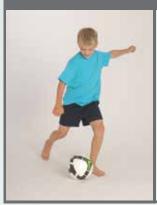
Soccer Cricket Hockey Rugby Racquet sports Netball Baseball Basketball Athletics Martial arts Volleyball

A child who can strike with an implement skilfully, will be able to take part in:



Cricket Hockey Racquet sports Baseball Softball Martial arts

A child who can strike with feet skilfully, will be able to take part in:



Soccer Rugby Martial arts

A child who can catch skilfully, will be able to take part in:



Cricket Rugby Netball Baseball Softball Basketball Waterpolo

A child who can strike with hands skilfully, will be able to take part in:



Cricket Hockey Rugby Racquet sports Baseball Basketball Waterpolo Volleyball Martial arts

A child who can throw skilfully, will be able to take part in:



Soccer Cricket Rugby Racquet sports Netball Baseball Softball Basketball Athletics Waterpolo

Skills development activities

The skills development activities in part 2 of the manual include activities you can do with your learners to help them develop the fundamental movement skills. The table below lists each skill that is covered, what type of skill it is and the names of the activities you can do to teach each skill.

Locomotion skills

Skill	Name of skill and description	Activities
	Walking Walking is the foundation of being able to do all other activities. It involves placing 1 foot in front of the other while keeping contact with the supporting surface.	 Follow the leader Marching on the spot Line walking
	Running Running is very similar to walking, but at times both feet are off the ground.	 Running free Running journey Changing running speeds Animal sprint
	Hopping Hopping involves a springing action where one takes off and lands on the same foot.	 Enjoying hopping Hopping far and high Hopping tag Long hopping relay



Skill	Name of skill and description	Activities
	Jumping Jumping involves a 1- or 2-foot take-off and landing on both feet. There are 3 types: Jumping for distance Jumping for height Jumping from a height	 Can you jump far? Can you jump up? Circular rope Jump rope
	Dodging This skill involves quick changes of direction from side to side.	 Exploring dodging Dodgems Shadow partner Freezing and counting tag
	Skipping Skipping is the rhythmic, continuous changing from skip to hop.	 Let's try skipping Freezing and melting Dangerous tiger Ring-a-ring o' roses

Balance skills

Skill	Name of skill and description	Activities
	Balance	
1	Balance is the ability to stay stable as the centre of gravity changes.	 How to balance Balancing with equipment Connecting body parts in balance Connecting 5
T		4. connecting 5
	Rotation	
	Rotation requires one to maintain stability while the body is moving in a	1. Developing rotation
	circular motion.	2. Rolling forward3. Shadowing partner
		4. Rolling backwards
	Landing	
	In order to land properly, learners	1. Landing on the feet
-	need to be able to absorb the force over a large surface area.	2. Falling forward and landing on hands
		3. Falling sideways and landing on hands
3.		4. Falling forward at a speed



Manipulation skills

Skill	Name of skill and description	Activities
	Throwing Throwing involves releasing an object with the hand, with force, in a particular direction.	 Passing and throwing Let's roll that ball! How to throw under-arm How to throw a ball over-arm
	Catching Catching involves holding onto a moving object by grasping with hands.	 Catching with a partner Circle catch Shuttle passes Catching it
	Striking with hands Making sudden contact with an object in an over-arm, side-arm or under-arm pattern.	 Bouncing a ball Volleying Under-hand striking Over-head volleying Keeping it up
	Striking with feet Kicking involves striking an object with force with the foot.	 Developing rotation Rolling forward Shadowing partner Rolling backwards
	Striking and blocking with an implement Making a sudden contact with objects in an over-arm, side-arm or under-arm pattern using an object being held.	 Exploring short implements Exploring long implements French cricket Racquet square

Did you know?

1 in 4 young people report to have little or no interest in taking part in sport.



Strategies to promote the development of physical literacy

Creating a positive learning environment

While there are many benefits to having a physically active school, these benefits can only be fully realised if the children have a positive experience. A negative experience in physical activity has a negative effect on children, often leading to disinterest in sport or physical activity and even poor self-esteem.

A positive attitude is key to enjoyment and, in turn, key to achieving the benefits of taking part and developing a lifelong habit of being physically active. The following techniques to promote a positive environment have been successful in shaping a positive attitude towards taking part in activities and sports.

How to keep children interested in physical activity

- Involve the children in developing their physical activity programme
- Include new activities that will cater for a range of interests and abilities
- Share exactly what you want to achieve with the children so that they
 know why it is important to take part. Involve the children in developing
 criteria for success. If children know exactly what they need to do to
 succeed, they will be more likely to experience success
- Be encouraging. Use positive reinforcement and specific feedback so that children know what they are doing well
- Do not exclude children from an activity as a punishment, for example do not have a child run 3 laps around the field because he or she misbehaved.
 If a game involves participants being eliminated from the game, find a way for children to stay active and take part
- Provide opportunities for maximum participation and try to ensure that children are not waiting around for a turn
- Avoid competitive situations that draw attention to a child's lack of a specific skill
- If children are not succeeding at a task, modify the task to make it less complex
- Invite local sports people or local celebrities to visit the school and participate in physical activity with the children.



Did you know?

22% of primary school girls and 17% of primary school boys are overweight or obese.

Being a role model

Your attitude towards physical activity and your activity levels can influence the children's approach to physical activity. Be a positive role model and be active whenever you can. Adults and older children have a powerful influence as role models since their attitudes and values often become the standard that children adopt for their own behaviour.

Demonstrating activities

There are many benefits to demonstrating activities to children. You'll show them the correct way to do an activity so they know what is expected of them. By demonstrating activities you increase your own physical activity and show your enthusiasm and commitment. If you cannot demonstrate a particular skill or activity, ask one of the more skilful children to do it. This gives the child special recognition and builds self-esteem.

Demonstrating tips

- Work out which parts of the activity need to be demonstrated as you may not need to demonstrate them all
- Divide the activity into smaller steps and clearly explain each one. Get the learners to repeat the steps of the activity. Breaking an activity into smaller activities helps learners achieve it 1 step at a time and can make teaching the skill easier. For example, if you are teaching the high jump, first focus on the run-up, then on the jump and lastly on the landing
- Ensure that learners can see you clearly
- You may need to demonstrate an activity more than once. Do it slowly at first.

Working in groups

Use different methods to divide the learners into groups and match the needs of the children. Be mindful of children's different abilities and experiences. Give your instructions clearly and ensure that the children do not move until you have given all the instructions. It can help to allow children to repeat the instructions to the whole class or to their group to make sure everyone knows what to do.

There are some grouping methods you should avoid, for example, team leaders choosing group members. This can be stressful to the child that is picked last and it is not helpful in building self-esteem.

Did you know?

70% of learners make unhealthy choices at the tuck-shop.

Suggestions for choosing groups

- Let the children hold hands to form a circle, then drop their hands and take a step out. Someone calls out a colour and all those wearing that colour jump into the middle and form a pair or group. A variation of this would be to call out birthday months
- Ask children to find a partner and carry out a quick partner activity like mirroring each other's movements. Then join the pairs so that they form a group of 4 then 6 and so on
- Number the children standing in a circle. Use more numbers if more than 2 groups are required. Children with numbers that match work together in a group.

Individualising instruction where appropriate

Working with a group of children who are not physically active can be discouraging. Managing children's behaviour towards physical activity may sometimes need the same techniques teachers use in the classroom.

There are times when some children may not be able to keep up with the skills of the group that they are in. These situations call for you to help the children who are behind in their skills development. In all of these cases, simpler versions of the skills would be practised until the child masters the skill at the lower level. Then, progressively more difficult versions of the skill would be tried until the child finally feels confident to take part in the activity with his or her peers.

Being resourceful with equipment

Fortunately, physical activity can be done with little or no equipment, although a wider variety of activities are possible if you have enough equipment. It can also be useful to include modified equipment for children who lack skills and for children who have disabilities that make it difficult to use standard equipment. Keep in mind that the equipment does not have to be modern and expensive. Ensure that the equipment can be shared by all classes and is readily available. Children should be able to easily access the equipment.





Suggested list of basic equipment

To use in the classroom

- Skipping ropes
- Beanbags (small)
- Hoops
- 1 long rope
- Small balls (sponge or inflatable)
- Cones or markers
- Large balls (sponge or inflatable)
- Balloons
- Scarves.

To use outdoors

- Gymnastic mats (can also use soft grass or carpet squares)
- Balance beam
- Softball bat
- Cricket bat and wickets
- Various balls (soccer, rugby, netball, cricket, tennis, basketball, hockey, sponge balls)
- Hockey sticks
- Tennis racquets
- Nets and hoops
- Bibs or other clothing to indicate different teams.

Alternative equipment

Equipment	Alternatives
Different size balls	Crumpled newspapers or magazines wrapped with an old stocking
Different types of racquets	Wire hangers wrapped in an old stocking
Hoops	Wire folded into a circle
Skipping ropes	Black plastic bags plaited together
Different types of bats	Newspapers rolled tightly
Cones	Bottles/tins/paper plates
Baseball bases	Paper plates
Stilts	Tins with string attached to them
Cymbals, drums, rattles (rhythm equipment)	Plastic bottles filled with small stones or 2 sticks
Flags	Old clothes/old shoes
Tennis/volleyball net	Plastic bags tied together between trees or poles
Basketball/netball hoop	Metal hangers that have been stretched into a circle



Examples of alternative racquets made with wire hangers and stockings.

Change the equipment for learners with special needs

- Use lighter bats or racquets with shorter handles
- Use lighter, bigger and slower bouncing balls
- Use equipment that contrasts with the playing area background so that children can see it clearly, for example white markers on the grass or a fluorescent ball on a dark court.

Safety

Safety at school is the responsibility of everyone – teachers, learners, parents and the community. It is important for key role players to make sure that injuries among children are minimised and schools can teach children the skills they need to promote safety and prevent injury at play, at home and at school. School-based injury prevention efforts should address policies, procedures, staff development, the environment and the curriculum. You should also do regular safety audits.





Did you know?

According to the World Health Organization, physical inactivity is associated with at least 30% of the most prevalent physical and mental health concerns.

Preventing injury during physical activity programmes and sport

- Provide safe physical education and extra-curricular physical activity and sports programmes
- Develop, teach, implement and enforce safety rules in sports, games, recreation and dance
- Promote injury prevention and non-violence through physical education and sports participation. Include a specific safety component in the teaching of all sports and games
- Ensure that open spaces, equipment and facilities meet or exceed recommended safety standards
- Employ physical education, sports and activity staff trained in injury prevention, first aid, and CPR, and provide ongoing staff development and training.

Safety guidelines for activities

- If children are taking part in vigorous activity, they should warm up first and be familiar with the activity and the equipment they will use
- Discuss and set any safety rules for each activity before you begin
- Limit the number of children playing in any one area
- Separate younger children from older children when running to avoid collisions
- Choose more stationary activities when working on a hard surface with vounger children
- When throwing or striking objects, make all children face the same direction or start back-to-back in lines and throw or strike away from each other
- Ensure children wear correct and appropriate clothing and footwear. Children should always wear appropriate protective gear, like mouth guards or shin guards, when taking part in contact sports activities. Teach children the importance of safety equipment
- Ensure equipment is safe and appropriate to the children's level of development and skill. Equipment such as hoops, ropes and mats can slip when jumped on
- Modify or change the activity if children become tired
- Ensure children who take medicine for a condition like asthma, always have access to their medicine.

Did you know?

Discovery and Laureus
Sport for Good Foundation
currently support 11
projects in South Africa
that reach kids from
3 years old.



Supporting learners with special needs

Whenever possible, children with special needs should be integrated with mainstream classes and practices to allow them to enjoy experiences with their peers and to become part of the group.

General guidelines for including children with special needs

- Make large groups of children with different abilities or smaller groups of children with similar abilities
- Use a buddy system (pair disabled children with those who are not disabled)
- Ensure that children can clearly see the skills being demonstrated to make sure they understand
- Use visual aids and demonstrations for the activities. Physically guide children through the movement and use language that is appropriate to the group. Always check that the children understand the instructions
- By using circuit activities you allow children to progress at their own level and pace
- Introduce activities that may be new for all the children and that are particularly appropriate for children with disabilities
- In games like tennis and table tennis, allow for more bounces of the ball
- In games like volleyball allow the ball to be hit any number of times
- Substitute players regularly
- Reduce or completely avoid the competitive elements of games
- Allow for short periods of exercise and appropriate periods of rest
- Change running to walking where appropriate
- · Allow sitting, lying or kneeling instead of standing
- Try bouncing, rolling or using the under-arm throw instead of over-arm throws
- Reduce the size of the playing area or court for soccer, hockey, tennis, basketball and rugby
- Lower the net for games like volleyball, tennis and badminton
- Be aware of lighting. Ensure that children can track movements and objects.

Conclusion

We hope this manual will give you a better understanding of physical literacy and what you can do to help children develop their sporting and physical activity skills. Helping children and youth become confident in their movement skills and enjoy physical activity is not only good for their health, it also fosters mentally and physically well-balanced adults. We wish you success with your physical activity programme.



This manual uses expert information

To make sure you get the most up-to-date information of the highest quality, we use information from local and international experts.

We appreciate the contributions from these international organisations, who are leaders in this field:



Dr Istvan Balyi and Canadian Sport for Life for their Long-term Athlete Development (LTAD) programme. Dr Balyi is a world-renowned leader in this field.



SPARC (Sport and Recreation New Zealand) for their Active Schools programme, which aims to improve opportunities and experiences for physical activity in New Zealand's primary schools. By promoting this, they encourage children to be active for life, which brings about the benefits of being healthy.

We also recognise the major contribution of our locally based experts, the Sports Science Institute of South Africa (SSISA). Dietitians, biokineticists, doctors and education specialists provided expert advice and insight.

Discovery has endeavoured to ensure that all the information contained in this booklet is accurate and based on credible clinical and scientific research. Discovery cannot however, be held responsible for any injury, loss or damages that may result from reliance on the information, and by using the information the user specifically waives any claim it may have against Discovery in this regard. Users are advised that each individual has their own unique clinical make-up and while the material was designed with all individuals in mind, some may respond differently to others. Users are therefore advised to take due caution when participating in any of the activities recommended.

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