

# SINGAPORE PHYSICAL ACTIVITY GUIDELINES FOR SCHOOL CHILDREN & YOUTHS (7 - 17 YEARS)



School children and youths can engage in physical activity through many different settings and not only through recreation and leisure, such as home, in school, and in community settings. They should meet all recommendations for physical activity, sedentary behaviour and sleep habits to reap health benefits associated with regular physical activity and reduced sedentary behaviour.

## MOVE WITH PLAY & GROW



### RECOMMENDATIONS

#### PLAY FOR 60 & MIX IT UP / Physical Activity

Accumulate an average of **60 minutes in moderate- to vigorous-intensity aerobic activity per day across the week.**

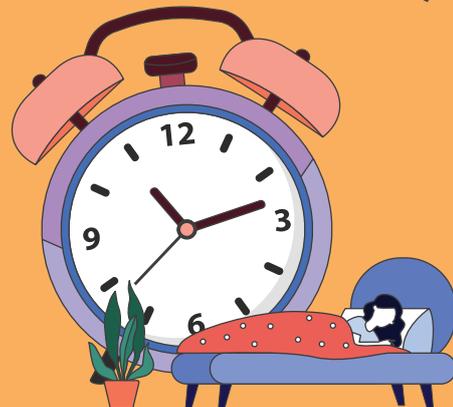
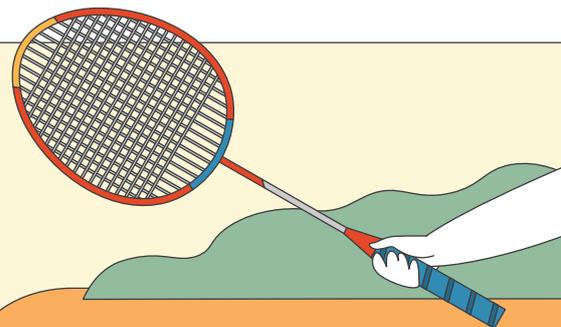
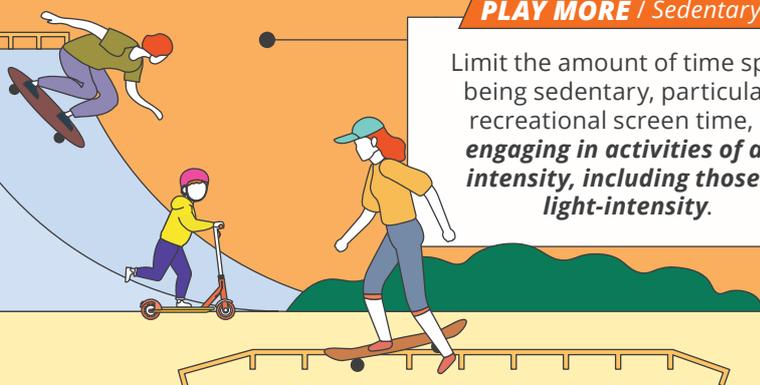
\*Every minute of vigorous-intensity activity can generally be considered as two minutes' worth of moderate-intensity activity.

A variety of **vigorous-intensity aerobic activities, muscle- and bone-strengthening exercises** should be incorporated **at least 3 days a week** to promote the development of movement skills.



#### PLAY MORE / Sedentary Behaviour

Limit the amount of time spent being sedentary, particularly recreational screen time, by **engaging in activities of any intensity, including those of light-intensity.**



#### SLEEP WELL / Quality Sleep

7-13 years: **9 to 12 hours**  
14-17 years: **8 to 10 hours**

### TIPS



Incorporate active travel into the weekly routine, such as walking or cycling to school.



Explore a variety of activities to help school children and youths develop active hobbies or interests.



Visit outdoor playgrounds for your child to engage in social play and interact with others while being active.



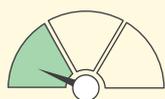
Stand up while studying or take movement breaks in between study sessions.



Consider joining a sports team/club/organisation to experience physical activity in a social setting, which helps school children and youths stay motivated.



### EXERCISE INTENSITY



**Light**  
Can talk in full sentences and sing



**Moderate**  
Can talk in phrases or short sentences but cannot sing

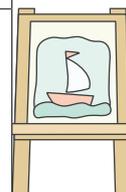


**Vigorous**  
Have difficulty talking

# GUIDELINES BY SUB-POPULATION: PRESCHOOL, SCHOOL CHILDREN & YOUTHS

## UPDATES IN THE SINGAPORE PHYSICAL ACTIVITY GUIDELINES (SPAG) PRESCHOOL (0 - 6 YEARS)

Previous (2013)	What's New
Limit sedentary entertainment screen time to 2 hours.	Sedentary time limit revised to a maximum of 1 hour.
Engage in physical activity for 180 minutes daily regardless of age.  Sleep recommendations not included.	Activity recommendations broken into 3 further sub-groups to reflect different developmental needs as preschool children grow.  Introduction of sleep time recommendations.



## UPDATES IN THE SINGAPORE PHYSICAL ACTIVITY GUIDELINES (SPAG) SCHOOL CHILDREN AND YOUTHS (7 - 17 YEARS)

Previous (2013)	What's New
Limit sedentary entertainment screen time to 2 hours.  Break up sedentary periods of 90+ minutes with 5-10 minutes of physical activity.	Removed time-specific recommendations.
Engage in physical activity for 60 minutes daily.  Minimum bouts of 5 minutes.  Fundamental movement skills not emphasised in previous edition.	Engage in an average of 60 minutes of physical activity per day over the week.  No minimum duration.  Greater emphasis on the importance of developing fundamental movement skills in school children and youths by engaging in different activities.



### IT IS RECOMMENDED THAT...

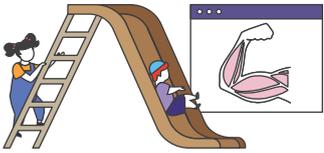
Preschool, school children and youths should limit the amount of time spent in sedentary behaviours, especially recreational screen time as it has been highlighted as the key factor. Instead, they should engage in a variety of physical activities regularly.

Infants below one year old should be encouraged to engage in at least 30 minutes of tummy time per day. Young school children should aim for at least 180 minutes of physical activity of any intensity spread throughout each day. It doesn't have to be all at once and every minute counts. Additionally, for all children aged three years and older, 60 minutes of the time spent actively should be of moderate- to vigorous-intensity.

Preschool, school children and youths should also engage in vigorous-intensity aerobic activities, muscle and bone strengthening exercises at least 3 days a week, where doing a variety of activities can help to build their Fundamental Movement Skills (FMS).

# EXAMPLES OF AEROBIC, MUSCLE & BONE STRENGTHENING ACTIVITIES FOR SCHOOL CHILDREN

\*Not an exhaustive list

	MODERATE-INTENSITY	VIGOROUS-INTENSITY
<b>AEROBIC</b> 	<ul style="list-style-type: none"> <li>• Games at the Playground (Hide and Seek)</li> <li>• Commute by cycling</li> <li>• Casual racquet sports</li> </ul>	<ul style="list-style-type: none"> <li>• Games at the Playground (Tag/Catching)</li> <li>• Mountain biking</li> <li>• Competitive racquet sports</li> </ul>
<b>MUSCLE STRENGTHENING*</b> 	<ul style="list-style-type: none"> <li>• Games at the playground (e.g. tug-of-war)</li> <li>• Climbing</li> </ul>	<ul style="list-style-type: none"> <li>• Circuit training</li> <li>• Hopping, jumping, and rope-skipping</li> <li>• Playing a football match</li> </ul>
<b>BONE STRENGTHENING*</b> 	<ul style="list-style-type: none"> <li>• Games at the playground (e.g. hopscotch)</li> <li>• Casual basketball or netball</li> <li>• Gymnastics</li> </ul>	<ul style="list-style-type: none"> <li>• Martial arts</li> <li>• Competitive basketball or netball game</li> <li>• Dancing</li> </ul>

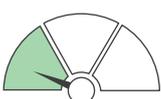
\* All muscle and bone strengthening activities of moderate- or vigorous-intensity are also considered as aerobic activities

# EXAMPLES OF FUNDAMENTAL MOVEMENT SKILLS

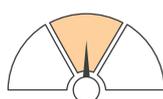
LOCOMOTOR SKILLS	OBJECT CONTROL SKILLS	STABILITY SKILLS
<p>Enabling children to move through different environments, moving their bodies from one location to another. Examples of key locomotor skills:</p> <ul style="list-style-type: none"> <li>• Walking</li> <li>• Running</li> <li>• Jumping</li> <li>• Hopping</li> <li>• Skipping</li> <li>• Sliding</li> </ul>	<p>Making controlled contact with objects using parts of the body or using an implement. Examples of object control skills:</p> <ul style="list-style-type: none"> <li>• Rolling</li> <li>• Throwing</li> <li>• Catching</li> <li>• Kicking</li> <li>• Striking</li> <li>• Dribbling</li> </ul>	<p>Maintaining and acquiring balance in static and dynamic movements. Examples of stability skills:</p> <ul style="list-style-type: none"> <li>• Balancing</li> <li>• Turning</li> <li>• Twisting</li> <li>• Stretching</li> <li>• Transferring of weight</li> </ul>



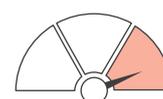
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# CASE STUDIES: SCHOOL CHILDREN & YOUTHS

## CASE STUDY #1



### DE WEI, 9

*Sedentary school child who enjoys e-games*

De Wei is a primary school boy who enjoys e-gaming. Apart from walking to and from the school bus on weekdays, he does not engage in any structured physical activity. De Wei's biggest passion is playing online games with his friends on weekends. When he is not gaming, he is studying for his school exams. His parents spend a lot of time supporting De Wei in his studies and feel that there is no time for leisure time physical activity. De Wei often feels lethargic and tired, and he tends to eat high-sugar foods to give him energy boosts before school or during an intense gaming session.

While De Wei is getting some light intensity exercises intermittently throughout the week, he should be aiming for higher levels of physical activity. If your child is also passionate about e-gaming, consider the following:



Always set aside time throughout the week for leisure time physical activity as it helps to boost your child's mood and improves critical thinking.



Find a gaming system that involves movement to increase physical activity while gaming. Activities like dancing, tennis, bowling and boxing have been adapted to a virtual format so you can now interact with the game as a form of physical activity.

## CASE STUDY #2



### EMMA, 5

*Teenage girl with a packed academic and social calendar*

Emma is a secondary school girl who enjoys hip hop dance. This aerobic physical activity is intense, and Emma takes part in dance classes three times a week, with each session lasting 90 minutes. This adds up to a total of 4.5 hours of physical activity each week. Besides dancing, Emma takes part in her weekly physical education classes in school.

As the pressure from school continues to build up, Emma finds herself becoming more inactive in and out of school when she's not dancing with her friends. She feels tired all the time and struggles to squeeze all her studies and schoolwork into the time she has after school. On weekends when she's not studying, Emma likes to go for a walk at MacRitchie reservoir with her mother and has been doing it since she was a little girl. She finds the light-intensity walk in a nature setting calming and enjoys conversations with her mother about life in general. Like many of her friends, Emma spends many hours in front of a screen doing schoolwork and catching up on the latest social media trends.

Emma can focus on meeting the sleep recommendations of 8 to 10 hours every night to help her stay energised. This will also have a positive influence over her attention, memory, learning, behaviour, emotional regulation, quality of life, mental and physical health. She is doing great on a weekly basis and engages in physical activities. She has found a hobby that she is passionate about, and this will help to sustain the level of physical activity on a long-term basis. As an activity, dancing can engage multiple muscle groups and energy systems in each bout of activity. The balance and coordination component of dancing may also help to improve Emma's quality of movement and sense of movement competency. For most youths, it is important to:



Include activities that require multi-directional bodyweight movement to improve strength.



Head out during the weekends with friends and family for a stroll, and enjoy nature for light-intensity physical activity.



Limit screen time as it may impact one's quality of sleep.



Have a consistent sleep routine and sleep for about 8 to 10 hours every night.



Build in regular breaks to move around during times of prolonged sitting or inactivity.

# SUMMARY OF EVIDENCE: SCHOOL CHILDREN & YOUTHS



## SEDENTARY BEHAVIOUR

	<b>GENERAL FITNESS:</b> Sedentary behaviour, especially recreational screen time, is related to poorer health outcomes, e.g. poorer fitness and cardiometabolic health in children and adolescents.	<b>SOCIAL BEHAVIOUR:</b> Increased duration of television viewing and video gaming are significantly associated with unfavourable measures of behavioural conduct/pro-social behaviour.
	<b>OBSESITY:</b> More than 2 hours of sedentary behaviour per day was positively associated with increased childhood obesity, as compared to lower durations of sedentary behaviour.	<b>MENTAL HEALTH:</b> Evidence showed that screen use during leisure time is associated with depressive symptoms and psychological distress among children and adolescents.

## AEROBIC ACTIVITY

	<b>FITNESS:</b> Increased physical activity improves cardiorespiratory fitness and musculoskeletal fitness in children and adolescents.	<b>MENTAL HEALTH:</b> Exercising and endurance training have a beneficial effect on depressive symptoms in children.
	<b>COGNITIVE FUNCTION &amp; ACADEMIC OUTCOMES:</b> Physical activity has positive effects on cognitive function and academic outcomes (e.g. school performance, memory, and executive function).	<b>CARDIOMETABOLIC HEALTH:</b> Regular physical activity in children and adolescents is positively associated with beneficial cardiometabolic health outcomes.

## VIGOROUS-INTENSITY AND MUSCLE/BONE STRENGTHENING ACTIVITIES

	<b>GROWTH AND DEVELOPMENT:</b> Vigorous-intensity activity promotes strength gains, strong joints, and healthy bones, which are vital for optimal growth and development.	<b>BONE HEALTH:</b> Physical activity increases bone mass, bone mineral content, and bone strength, which can help to protect from osteoporosis and related fractures later in life.
	<b>MOVEMENT SKILLS:</b> Physical activity in school children and youths is positively associated with increased proficiency in motor/movement skills (physical literacy).	<b>CARDIORESPIRATORY FITNESS:</b> High-intensity interval training, compared with moderate-intensity continuous training, had a moderate beneficial effect on cardiorespiratory fitness.

