



IRISH LIFE HEALTH SCHOOLS' FITNESS CHALLENGE
RESULTS AND REPORT 2018-2019

CARDIOVASCULAR FITNESS 1ST TO 3RD YEAR STUDENTS

This document contains the results of St. Andrew's College 1st, 2nd & 3rd students who took part in the *Irish Life Health Schools' Fitness Challenge 2018* with comparison of those results to the national averages for age and gender and target scores for those same groups.

The challenge involved three phases for all first, second and third year students:

Phase I: Initial multi-stage fitness test (bleep test), which took place in September 2018.

Phase II: Students completed a six-week block of interval running to help improve cardiovascular fitness levels.

Phase III: Repeat of multi-stage fitness test (bleep test) to measure new fitness levels. This took place in November 2018.

The multi-stage Fitness Test (The Bleep Test)

What the test measures:

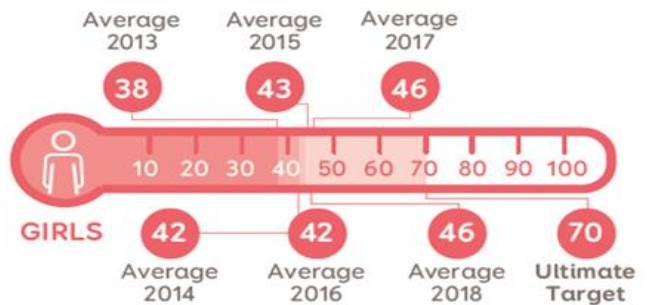
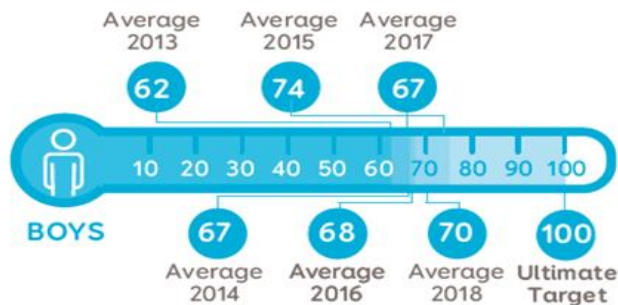
The Multi-Stage Fitness Test, commonly known as the bleep test is a simple way to measure students' cardiovascular fitness. Results from the test are then compared to population norms for age and gender.

How the bleep test works

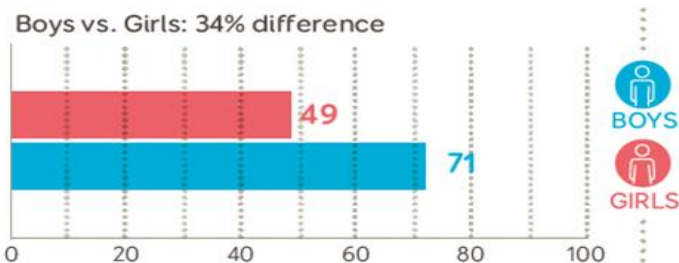
Students run continuously between two lines, 20 metres apart, in time to recorded beeps. Running speed is increased at approximately one-minute intervals. The aim is complete as many runs (known as 'shuttles') as possible just before or as each beep is heard.

THE NATIONAL FIGURES

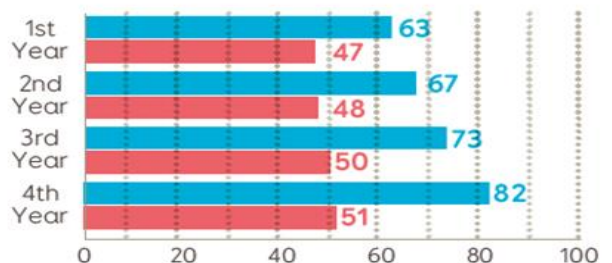
These barometers show the average number of shuttle runs completed by Irish boys and girls during phase 2 of the Irish Life Health Schools' Fitness Challenge from 2013 to 2018. The ultimate target is recommended by the centre for Preventive Medicine, DCU.



Average number of shuttle runs

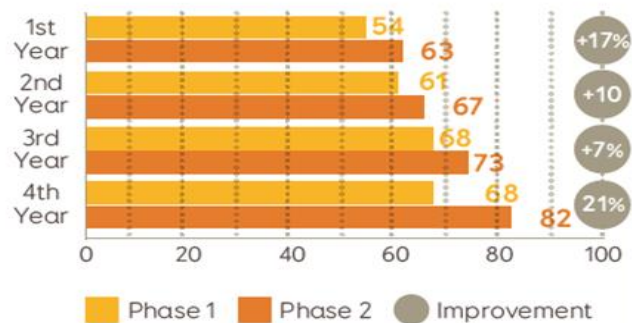


Average number of shuttle runs completed by boys and girls after 6 week training programme was completed.

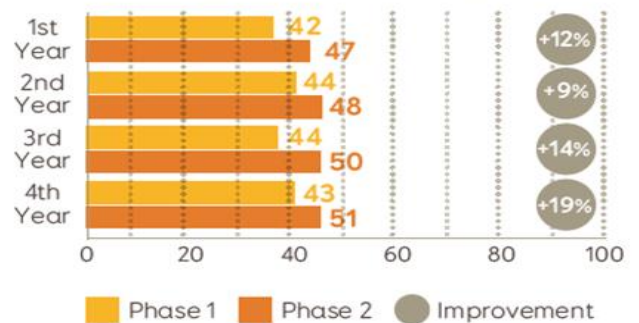


Average number of shuttle runs completed by 1st - 4th year boys and girls after 6 week training programme was completed.

Improvement levels



Percentage improvement in fitness by boys after 6 week exercise programme. The percentage difference is between the 1st and 2nd bleep tests.



Percentage improvement in fitness by girls after 6 week exercise programme. The percentage difference is between the 1st and 2nd bleep tests.

FIRST YEAR GIRLS ST. ANDREWS

AVERAGE SCORE IN LEVELS COMPLETED BY FIRST YEAR GIRLS NATIONALLY: 2018/19.

6.6

AVERAGE SCORE IN LEVELS COMPLETED BY FIRST YEAR GIRLS IN ST. ANDREW'S COLLEGE: 2018/19

7.8  

THE TARGET SCORE FOR GIRLS 12-18 YEARS OF AGE IS LEVEL 8.9 OR 70 SHUTTLES

8.9

THE PERCENTAGE OF FIRST YEAR GIRLS IN ST. ANDREW'S COLLEGE EQUALLING OR EXCEEDING THAT TARGET LEVEL SCORE IS

36% 

SECOND YEAR GIRLS ST. ANDREWS

AVERAGE SCORE IN LEVELS COMPLETED BY SECOND YEAR GIRLS NATIONALLY : 2018/19

6.7

AVERAGE SCORE IN LEVELS COMPLETED BY SECOND YEAR GIRLS IN ST. ANDREW'S COLLEGE. 2018/19

8.3  

THE TARGET SCORE FOR GIRLS 12-18 YEARS OF AGE IS LEVEL 8.9 OR 70 SHUTTLES

8.9

THE PERCENTAGE OF SECOND YEAR GIRLS IN ST. ANDREW'S COLLEGE EQUALLING OR EXCEEDING THAT TARGET SCORE IS

35% 

THIRD YEAR GIRLS ST. ANDREWS

AVERAGE SCORE IN LEVELS COMPLETED BY THIRD YEAR GIRLS NATIONALLY:2018/19

6.9

AVERAGE SCORE IN LEVELS COMPLETED BY THIRD YEAR GIRLS IN ST. ANDREW'S COLLEGE:2018/19

7.9  

THE TARGET SCORE FOR GIRLS 12-18 YEARS OF AGE IS LEVEL 8.9 OR 70 SHUTTLES

8.9

THE PERCENTAGE OF THIRD YEAR GIRLS IN ST. ANDREW'S COLLEGE EQUALLING OR EXCEEDING THAT TARGET SCORE IS

26% 

FIRST YEAR BOYS ST. ANDREWS

AVERAGE SCORE IN LEVELS COMPLETED BY
FIRST YEAR BOYS NATIONALLY: 2018/19.

8.2


AVERAGE SCORE IN LEVELS COMPLETED FIRST
YEAR BOYS IN ST. ANDREW'S COLLEGE:
2018/19

8.8  

THE TARGET SCORE FOR BOYS 12-18 YEARS OF AGE IS
LEVEL 11.6 OR 100 SHUTTLES

11.6

THE PERCENTAGE OF FIRST YEAR BOYS IN ST. ANDREW'S
COLLEGE EQUALLING OR EXCEEDING THAT
SCORE IS

8% 

SECOND YEAR BOYS ST. ANDREWS

AVERAGE SCORE IN LEVELS COMPLETED BY SECOND
YEAR BOYS NATIONALLY: 2018/19.

8.6


AVERAGE SCORE IN LEVELS COMPLETED SECOND YEAR
BOYS IN ST. ANDREW'S COLLEGE: 2018/19

9.5  

THE TARGET SCORE FOR BOYS 12-18 YEARS OF AGE IS
LEVEL 11.06 OR 100 SHUTTLES

11.6

THE PERCENTAGE OF SECOND YEAR BOYS IN ST.
ANDREW'S COLLEGE EQUALLING OR EXCEEDING THAT
TARGET SCORE IS

8% 

THIRD YEAR BOYS ST. ANDREWS

AVERAGE SCORE IN LEVELS COMPLETED BY THIRD YEAR
BOYS NATIONALLY: 2018/19.

9.1

AVERAGE SCORE IN LEVELS COMPLETED BY THIRD YEAR
BOYS IN ST. ANDREW'S COLLEGE: 2018/19

9.8  

THE TARGET SCORE FOR BOYS 12-18 YEARS OF AGE IS
LEVEL 11.06 OR 100 SHUTTLES

11.6

THE PERCENTAGE OF THIRD YEAR BOYS IN ST.
ANDREW'S COLLEGE EQUALLING OR EXCEEDING THAT
TARGET SCORE IS

31% 

Percentage of Irish children and adolescents who get the World Health Organisation (WHO) recommended daily physical activity level of 60 minutes per day.

AGE	BOYS	GIRLS
11	51%	38%
13	39%	29%
15	27%	13%

According to Professor Niall Moyna Head of D.C.U School of Health and Human Performance, non-communicable diseases (NCD) refer to long-lasting (chronic) non-infectious health conditions with slow progression. They include cardiovascular diseases (like heart attacks and stroke), cancers, chronic respiratory diseases (such as chronic obstructive pulmonary disease and asthma) and diabetes. According to the World Health Organisation (WHO) the treatment of NCD's accounts for 90% of the Irish healthcare budget.

Cardiorespiratory fitness is a powerful marker of current and future health. High cardiorespiratory fitness during childhood and adolescence has been associated with a healthier cardio-metabolic profile, increased bone density, reduced risk for obesity and improved coordination, self-esteem, quality of sleep and mental health.

The School's Fitness Challenge involves participating students undertaking a baseline fitness test (bleep test) followed by a 6 week training programme designed by teachers and a follow-up test. Importantly the most inactive and low fit students will normally see the biggest improvements in fitness and will therefore make a large contribution to the improvement in the overall class average.

Irish children simply are not as fit as they should be and this could seriously affect their health and how their academic performance. Studies show that 86% of young people in Ireland do not meet the current World Health Organisation (WHO) recommendations for physical activity. Less than 15% of 10-18 year olds do at least 60 minutes of moderate to vigorous physical activity each day which is the minimum amount recommended by the WHO and the Department of Health and Children.

2018 Recommendations from Prof. Niall Moyna. DCU.

1. Ideally, Irish girls should be completing a minimum of 70 shuttle runs in the bleep test. This is equivalent to level 8.9. Only 33% of our 1st – 3rd year girls are reaching this minimum target.
2. Ideally, Irish boys should be completing a minimum of 100 shuttle runs in the bleep test. This is equivalent to level 11.6. Only 16% of our 1st -3rd year boys are reaching this minimum target.
3. Low Cardiorespiratory fitness in childhood and youth is a predictor of cardiovascular and metabolic diseases later in life. Since the levels of Cardiorespiratory fitness tend to track from childhood to adolescence and from adolescence to adulthood, every effort should be made to promote high levels of Cardiorespiratory fitness in early in life.
4. Continuous surveillance of Cardiorespiratory fitness in children and youth should be mandatory in primary and secondary schools.

2019 Recommendations from Prof. Niall Moyna. DCU.

1. Low cardiorespiratory fitness during adolescence is associated with premature death and increased risk of developing chronic diseases such as cardiovascular disease, type 2 diabetes and non-alcohol fatty liver.
2. Since the levels of cardiorespiratory fitness tend to track from adolescence to adulthood, every effort should be made to promote high levels of cardiorespiratory fitness in early in life.
3. The Irish Life Health Schools' Fitness Challenge demonstrates that a 6-week exercise intervention can improve cardiovascular fitness by more than 10% among school-going children.
4. Continuous surveillance of cardiorespiratory fitness should be mandatory in secondary school, and should form part of a lifelong "health portfolio"
5. Leaving Certificate students should receive up to 50 extra points for achieving targeting cardiovascular fitness levels
6. There is an urgent need to improve health literacy among teenagers. On the basis that schools provide universal access to teenagers over a sustained period, this could potentially be achieved by introducing a new innovative health science curriculum in secondary school