

## Superstar challenge

### Have you got what it takes?

#### What is The Superstar Challenge?

The Southwark Community Games Superstar Challenge is a sporting event organised by Southwark Community Games and the PCT, which is based on the BBC Superstars programme. In the televised edition athletes compete against each other in a wide range of sports collecting points according to their score or time and the winner is the man or woman with the highest total.

We have adapted this scheme to produce an innovative programme for young people (aged 9-10 - year five pupils) who are overweight or obese. The project initially engaged four schools with classes of between 20 - 30 pupils who participated in series of exercise and fitness challenges for ten weeks, which intended to get them faster, stronger and fitter as well as improving their diet. In 2010 we increased this intake to 6 schools.

#### Why have we created The Superstar Challenge?

This programme has been introduced as a result of the National Child Measurement programme 07/08 which showed that in year six, 26% of children were obese (the national average was 18.3%) and 16% were overweight in the borough of Southwark. On this evidence the estimated number of Southwark children aged 1-15 whose body mass index is above the 95<sup>th</sup> centile (obese), based on the 2007 Census mid year population shows that there are in total 8000 children who are obese in the borough. The recent national obesity strategy "healthy weight, healthy lives" states that the cause of obesity is a 'positive' imbalance between energy consumed (food and drink) and energy expended (exercise).

It is because of these distressing results that this programme has been developed to help tackle these issues through specific exercise sessions, team work, and teaching nutrition and life skills to help children make the right decision, through working with nutritionists, head teachers and school nurses.

The aim is to halt the year on year rise in levels of obesity among children aged nine and ten yrs in Southwark by 2011.

#### How will it work?

The programme has three main factors to help tackle obesity in children, increasing physical activity (and reducing inactivity); dietary education and changing the way children think about food and exercise.



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The “model” has eight elemental challenges:

**Circuit parlauf** -relay where the pair or team has to cover the distance. With only 1 runner running per team at a time, this will be incorporated in a circuit task.

**Agility test** - the ABCs (agility, balance, co-ordination and speed) a series of tasks to test and challenge the participants.

**Speed bounce** - using the standard speed bounce equipment. Participants see how many bounces they can achieve over a set time, normally 30secs.

**Skill circuit** - similar to agility circuit. A series of tasks/test to challenge and test participants skill level.

**Tug of war** - participants in a team aiming to pull the rope across the line which would determine a winner

**Standing long jump** – participants jump as far as possible from a standing position.

**Chest push/ javelin** - Participants pushing a 1kg medicine ball from their chest aiming to get good distance on the push / participants aiming to throw the foam javelin as far as they can.

**30m sprint** - participants aiming to run as fast as they can over 30m.

These challenges are then tested in a competition format involving all 30 young people in the class, no one will be excluded.

Prior to this competition will be a ten week training regime combing exercise sessions with nutrition workshops and activities. Each week three, one hour sessions will be delivered to the class, consisting of nutritional elements with food diaries as well strength and aerobic fitness with the aim of working towards the eight challenges.

During week one and ten waist measurements will be taken and calculated collectively as a class to show progression over the training period. After the ten weeks there will be a superstars final involving all four schools competing against each other in the eight challenges. This cycle of training will then be repeated over the year in ten week phases with the sessions increasing in intensity and difficulty so that there is clear progression and weight loss over the year.



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### Who will run the programme?

The programme will be run by the Southwark Community Games team with guidance and support from Healthy Schools and PCT nutritionists. The SCG staff are highly trained and qualified coaches in a multitude of sports as well as being tutors for Sports Leader UK. They will run the entire exercise programme as well as oversee the nutritional content with support from head teachers and school nurses.

Costs of Programme:

Per School:

SCG Coaching Time\*: £45 per hour X 3 hours per week X 9 weeks = 1215

Equipment purchase and repair = £250

Competition day = £1800 / 6 = £300

Project Management and administration = £1000

**Total = £2765**

**Total Cost to date = £27650**

**Cost to deliver Summer Programme X Six Schools = £16590**

\*Includes two qualified coaches, transport, training and development, uniform, telephone costs.

### The First Results September 09 – December 09

4 Schools involved - Based on the Healthy Southwark Heights and Weights Measurements

Comber Grove - Camberwell

St Josephs - Rotherhithe

Robert Browning - Walworth

John Dunne - Nunhead and Peckham Rye

Impact to date has been highly successful.

Comber Grove showed a marked impact over the 10 weeks of the programme with an average of 2.9cm per child lost from their waist circumference. This was a 53cm over the 18 children weighed. 10 out of the 18 children were obese and 3 were overweight.

Robert Browning - Ten children out of the class of 22 were measured as overweight and obese. Over the course of their 7 week programme there was an average waist circumference loss of 0.5cm and BMI average loss of 0.4.

St Josephs – Seven children from the 24 class members were overweight, and visually many of the children were small or slim. Over the course of the 10 weeks the average waist circumference grew by 0.6cm.

John Donne – The results for the BMI and waist measurements were fairly inconclusive over the 10 weeks however our measurements showed that the class



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consisted on one child who was obese and two children who were over-weight out of 23. This school will not be included in the next programme

The 2 most successful schools will continue.

### **The Second Results January 2010 to March 2010.**

Comber Grove School and Robert Browning School continued with the programme and we introduced four additional school chosen from a needs based analysis of the Heights and Weights Survey for Southwark, across different geographical areas of the borough.

The programme ran from 18<sup>th</sup> January and concluded with a Competition Day on 24<sup>th</sup> March at City of London Academy in Bermondsey.

**Comber Grove** class has an average class BMI of 22, classifying it as obese. Over the 2010 programme the results are:

- Overall class waist circumference down 16cm
- Average waist circumference down 0.9cm per child
- Overall class BMI down 0.9
- Average BMI down 0.1
- Overall class weight up 10.5kg
- Average weight up 0.6kg

These results are significant and continuing in the right direction if not quite as staggering as the first term. When considering the progress since the initiation of the programme in September of those who have been measured four times since beginning this group has lost 66.5 cm from total waist circumference which crudely equates to 4.2cm per child. As a group their average BMI has remained stable only insignificantly rising by 0.1 per child in 7 months.

**Robert Browning** class has an average class BMI of 19, which is within the healthy range. However nine of the 22 children in the class are overweight or obese.

- Overall class waist circumference down 35.5cm
- Average waist circumference down 1.7cm per child
- Overall class BMI down 3.1
- Average BMI down 0.15
- Overall class weight up 19kg
- Average weight up 0.9kg

The class lost 34.5cm from total waist circumference this programme (Jan - Mar), meaning the collective children who have been weighed all 4 times have lost 50cm in total since September or 2.6cm per child which is positive and significant. Also the class has lost 9.7 BMI in total equating to 0.5 BMI points per child in the same period.



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**Friars** on the positive side the collective class's waist circumference was reduced by a whopping 69.5 cm which is an average of 3.7cm per child.

- Overall class waist circumference down 69.5cm
- Average waist circumference down 3.7cm per child
- Overall class BMI up 8.3
- Average BMI up 0.4
- Overall class weight up 23.1kg
- Average weight up 1.2kg

BMI rose by 8.3 for whole class which is an average of 0.4 each child. This put the class average BMI as 18.6 which is deemed as in healthy range. This result shows a significant change in body shape without significant change in BMI. 3 of the 5 overweight / obese children put on 8.8 kg over the course, the most obese of these children put on 4kg of that which may be an individual issue.

### Langbourne

- Overall class waist circumference down 42cm
- Average waist circumference down 0.9 cm per child
- Overall class BMI up 8.2
- Average BMI up 0.3
- Overall class weight up 24kg
- Average weight up 0.9kg

The class as a group lost 42cm from waist circumference which equates to 1.6 cm per child, which is very good. The class put on 24kg which is 0.9 kg per child which coupled with an increase in height meant that BMI as a class rose by 0.3 per child, which is fairly insignificant but does show a change in body shape.

There are some reservations about data collection in this group as about half the class were measured as shrinking in height over the 9 weeks, which is impossible for this age group, this throws out the BMI measurements slightly, the above results therefore include some guestimates using the other data. The largest children also did not appear to lose any significant weight, however this is to be expected over this short time period.

**Snowfield** are certainly worthy of the programme as they have 8 obese children, 2 over weight and as a first, one underweight child in the class of 20.

- Overall class waist circumference up 74.3cm
- Average waist circumference up 4.6cm per child
- Overall class BMI down 0.4
- Average BMI stayed the same
- Overall class weight up 13.8kg
- Average weight up 0.9kg



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The class average is in the overweight category, with a BMI of 19.9, however over the course of the programme the class put on a total of 13.8kg, or 0.9 kg per child, added 74.3cm to their waist circumference which is significant and is 4.6cm per child, however their class BMI has hardly changed, just -0.4 over the class. It's difficult to ascertain what change factors are influencing this result and its hard to pull anything significant apart from their body shapes are changing but not necessarily detrimentally. Anecdotal evidence from the SCG tutors indicated that this class had noticeably poor coordination and motor skills and found basic physical activities difficult in comparison with other children in there age range. This evidence was compounded by the results of the Competition day whereby the class finishes last in 6 of the 8 challenges, and second from last in the remaining two.

**Peter Hills** class was a unique challenge and posed multifaceted issued.

- Overall class waist circumference down 6.6cm
- Average waist circumference down 0.6cm per child
- Overall class BMI down 3.6
- Average BMI down 0.3
- Overall class weight up 12.7
- Average weight up 1.1kg

Overall the class is on average classed as overweight with a BMI of 19.3, the class in total put on 12.7kg, 6.6 cm to waist circumference and BMI rose by 3.6, however per child this is fairly insignificant. This class had significant behavioral problems which were outlined from the beginning, the children were very disruptive to the flow of the sessions. When the diet and nutrition elements were introduced anecdotal evidence from the SCG tutor showed that a link between a extremely poor diet and this behavior. Many children missed breakfast which affected their concentration or had bad food choices. Progress was hampered also when the roof to the sports hall was condemned resulting in a loss of two weeks. Elisabeth Down – Peter Hills Primary School *“The instructors are to be commended for working in difficult circumstance; they have had to work with a class with particularly challenging behaviours.”*

### Learning Points to date

- The programme will need to run for 2 to 3 terms at least, to see significant changes in behaviour and weight
- School buy-in to the programme needs to be more robust and long term
- Head teacher involvement would add value to the programme's objectives
- Clear exit routes for those would want to continue activity
- Parental involvement is vital to long term success
- Cherry picking off those children with the greatest need to sign post into more concentrated programme
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**Next Steps – The programme could continue through current funding streams for an additional term with the same intake then will cease without funding.**

