

COPPERMILE



IMPLEMENTING A DAILY EXERCISE PROGRAMME AT COPPERMILL PRIMARY SCHOOL



CONTEXT

Whilst London Playing Fields Foundation is a great supporter of our national pitch sports, it believes that playing fields should appeal to a wider audience than solely those who play organised sport on a regular basis and this applies particularly to schools where a love of sport and physical activity begins. With the increasing concern over childhood obesity levels there is a need to urgently address the falling physical activity levels amongst the current school population. The Government's recently published Childhood Obesity strategy recommends that schools deliver 30 minutes of physical activity a day. The Coppermile project, delivered at Douglas Eyre Sports Centre in Walthamstow, is a response to the childhood obesity crisis and builds on the pioneering work of Elaine Wylie and the Daily Mile project at St Ninians Primary School in Stirling. This pilot study report outlines the process by which Coppermill Primary School and London Playing Fields Foundation worked together to create a culture of regular exercise.

Running parallel to the school based initiative LPFF is also planning to launch Green Hearts, a similar project targeted at inactive adults who live locally. The aim is to encourage them to commit to a more active lifestyle by providing access to a mile long trail marked on the perimeter of the field. It is envisaged that a number of these adults will be parents of pupils attending the school.

NEED

When investigating the need for the Coppermile Project as an antidote to rising obesity the evidence is compelling:

- In Reception (4 to 5 years): In London 23% of children are overweight or obese compared with the national average of 22.2%
- In Year 6 (10 to 11 years): In London 37.4% of pupils are overweight or obese compared with the national average of 33.3%. This means that almost one in four children in Reception and more than one in three children in Year 6 are overweight or obese
- Children aged 5 and from the poorest income groups are twice as likely to be obese compared to their most well off counterparts and by age 11 they are three times as likely.
- Physical activity is associated with numerous health benefits for children, such as muscle and bone strength, health and fitness, improved quality of sleep and maintenance of a healthy weight.
- There is also evidence that physical activity and participating in organised sports and after school clubs is linked to improved academic performance.
- Only one in ten children aged two to four meets the UK chief medical officers' physical activity guidelines for this age group.

Public Health England's approach to tackling childhood obesity is based on:

- Giving every child the best start in life
- Taking a family based approach
- Working with schools, making London schools the healthiest in the country
- Reducing the proportion of sugar in children's diet by 50%.
- Developing healthy urban environments for children to grow and develop
- Working together across London with new partners to find innovative solutions

The Government's Childhood Obesity strategy (2016) recommends that all children should engage in moderate to vigorous intensity activity for at least 60 minutes every day. At least 30 minutes should be delivered in school every day through active break times, PE lessons, extra-curricular clubs or other sport and physical activity events. The daily mile is one such initiative cited in the document as a way to achieve this target. The remaining 30 minutes should be supported by parents and carers outside of school time.

The aim of the Waltham Forest Healthy Weight Strategy 2015-2020 is to provide an environment that enables all Waltham Forest residents to make healthy food choices, to stay physically active and to maintain a healthy weight throughout their lives. One of its six key objectives is:

"To ensure that all health, social care and educational settings across the life course encourage and support healthy eating, active travel and physical activity, particularly early years to enable a healthy start for children."

Given the extra funding for schools' sports that the recent levy on the soft drinks industry will create, the Government is keen that schools are supported as much as possible in how they spend the available funds for maximum impact. During inspections, Ofsted assess how effectively leaders use the Primary PE and Sport Premium and measure its impact on outcomes for pupils, and how effectively governors hold them to account for this. Physical activity will be a key part of the new healthy schools rating scheme, and so schools will have an opportunity to demonstrate what they are doing to make their pupils more physically active.

Schools will continue to have the freedom to consider spending the Primary PE and Sport Premium on specific interventions but to help schools understand what help is available; PHE will be developing advice to schools for the academic year 2017/18. This will set out how schools can work with the school nurses, health centres, healthy weight teams in local authorities and other resources, to help children develop a healthier lifestyle.

In order to address this childhood obesity crisis there is a clear need to be innovative, provide safe places where this physical activity can take place and to work with schools: and this was the motivation behind LPFF approaching Coppermill School to try something different.

PROJECT PARTNERS

The Coppermile project is a partnership initiative between a school and a playing field charity. Having arrived at a shared view of what success looks like, it was crucial to understand how it would be measured and evidenced. With a track record of delivering successful sport for development projects, LPFF is well aware of the importance of having an evidence led approach and this is why the charity approached Fitmedia Fitness to implement the measurement methodology. To the company's credit, its expertise, time and effort were provided on a pro bono basis.

London Playing Fields Foundation

LPFF is the leading charity for the provision, protection and promotion of playing fields in London. Its vision is to create a happier, healthier, more cohesive London by encouraging more people to play sport on affordable, accessible and attractive playing fields. Founded in 1890, its mission is to provide a place to play sport forever and it contends that playing fields are more than expanses of open space and are places where the lives of local people and particularly those from disadvantaged groups can be improved. In addition to its strategic protection role, LPFF owns and operates eight large sites in London, one of which is Douglas Eyre Sports Centre in Walthamstow. The charity has a track record of delivering sports projects that have wider health and social benefits and it saw the Coppermile Project as a means of tackling childhood obesity and engendering healthy lifestyles.

Coppermill Primary School

The school which has 300 pupils on roll aged 3 – 11 years old, is based in Walthamstow and lies adjacent to Douglas Eyre Sports Centre owned by London Playing Fields Foundation.

The school prides itself on always striving for the highest expectations in teaching and learning and providing all pupils with skills for their future lives by developing their social, emotional well-being as well as their academic achievement and progress. It aims to provide a well ordered, harmonious community with high expectations and high standards of work and behaviour. With a focus on a broad, balanced, differentiated and interesting curriculum, it enables every child to achieve their full potential. The school is forward and outward looking and believes in creating an environment where pupils, parents, governors, staff and the wider community engage and work together. It has a positive attitude to physical education and school sport and all pupils are encouraged to be more active.

Fitmedia Fitness

Fitmedia Fitness is a specialist fitness company which provides fitness testing, analysis and services for schools, clubs and sports organisations, to enable children and their coaches to test, monitor and improve their overall fitness. Its testing systems are based on proven scientific principles and are endorsed by scientists, medical officers and sportsmen. They are easy to use and effective and provide data which is directly quantifiable and comparable. They provide an invaluable resource for all organisations involved in the physical activity and fitness of young people.

PURPOSE OF THE PILOT

Inspired by the Daily Mile established by Elaine Wylie at St Ninians Primary School in Stirling, Alex Welsh Chief Executive of LPFF met with the Head Teacher Figen Bektaşoğlu of Coppermill Primary School in January 2016 to plan the delivery of a similar project at the Douglas Eyre Sports Centre which lies adjacent to the school. Entitled the Coppermile, it was agreed to confine the project to one Year 6 class and two Year 5 classes coming out of lessons on three occasions per week. It was envisaged that this early positive experience for the pupils would help to engender an active habit for life.

The aim of the twelve week pilot project delivered during the summer term commencing on 11th April 2016 and concluding on 8th July 2016 was to produce a tried and tested model for Public Health England and Sport England to use to inform and inspire other schools in the borough and across London.

The core principles that govern the Daily Mile were used to inform the development of the Coppermile project, namely:

- Making it easy by ensuring that the transition from classroom to track was quick and not disruptive by allowing pupils to wear school uniform and to run without a warm up.
- Making it accessible by marking out a small track close to the school building and with distance markers so that the pupils could monitor their progress.
- Making it fun and inclusive by allowing the children to choose whether to walk, jog or run.



ORGANISATION

The project involved marking out a 340m grass track on the playing field. The school selected two classes from Year 5 and the Year 6 class for the pilot. The teachers determined how the sessions were timetabled and the classes walked, jogged or ran the course for fifteen minutes three times per week.

Improvements to the pupils' physical health and self-esteem were measured and recorded by Fitmedia Fitness. Improvements to pupil behaviour and classroom attentiveness were recorded by the school.

OUTCOMES

- Demonstrate how a whole school can be more physically active
- Improve pupils' fitness, self-esteem and general attentiveness/behaviour within the school environment
- Reduce the number of pupils who are overweight
- Exploit the cross curricular (mathematics and science) opportunities of the project.
- Extend use of Douglas Eyre Sports Centre to a wider audience beyond organised sport
- Provide a marketing tool for Green Hearts
- Raise awareness of the contribution that playing fields can make to improving public health

OUTPUTS

- Mark out a 340m track
- Organise the school timetable so that pupils can do the Coppermile at least three times per week.
- Agree a way of measuring baseline physical fitness, self-esteem and behaviour and thereafter at monthly intervals
- Produce a pilot study report
- Set up a similar project for adults called Green Hearts and promote to parents once the Coppermile project is established.

What success would look like

It was envisaged that by the end of the pilot study period completing the Coppermile three times a week would improve:

- Pupils' levels of fitness
- Pupils' self-esteem
- Pupils' classroom behaviour and attentiveness

Looking further forward it was envisaged that in the long term the project could emerge as an effective means of maintaining a healthy weight, improving well-being and of having a positive impact on academic achievement.



MEASUREMENT METHODOLOGY

In order to provide academic and scientific rigour to the process Fitmedia Fitness devised a measurement methodology based on accredited parameters. This involved three tests, one at the beginning on 15th April, the second at the mid point on 13th May and the last on 8th July.

Specifically, the tests entailed:

- The Cooper 12 Minute Run Test administered by Fitmedia Fitness to monitor physical fitness.
- A bespoke personal self-efficacy and well-being questionnaire administered by Fitmedia Fitness which assessed the pupils':
 - ◇ self-esteem – how they feel about themselves and their abilities
 - ◇ physical self-efficacy – the extent to which they are able to be active outside school with their friends and family
 - ◇ social and emotional well-being – how they feel about the key aspects of their life, such as friends, school and appearance
- A qualitative assessment of the children's behaviour and classroom attentiveness undertaken by Coppermill School staff

RESULTS AND FINDINGS

Seventy-six pupils took part in the project monitoring split across the year groups:

Year 5 51 children (25 boys and 26 girls)

Year 6 25 children (17 boys and 8 girls)

Impact on fitness

Overall, there was a significant improvement in a number of areas from Test One to Test Three, the key points of which are summarised below:

- The average distance run increased by 19%, from 1659m to 1976m
- The average fitness percentile result increased from 37% to 64%
- From a health perspective, the number of children recording scores below the 20th percentile declined significantly, from 36 in Test One to 12 in Test Three – a reduction of 67%. The 20th percentile is traditionally viewed as the “cut off” point for good health. Scores this low can indicate levels of cardiorespiratory fitness which are sufficiently low as to be an indicator of potential health risks.
- In addition, the performance of those children who were already performing well also improved. The number of children recording scores above the 90th percentile increased significantly, from 12 in Test One to 29 in Test Three. These results indicate outstanding levels of fitness and an exceptional ability for this type of activity.

Performance and improvement varied significantly by Year Group, as follows:

Year 5

The biggest improvements in fitness percentiles were found in Year 5, where both boys and girls improved their fitness significantly, from an average of 41% to 77%. Correspondingly, the number of children in this Year Group who started with fitness levels below the 20th percentile reduced significantly from 21 to 4. At the same time, the number of children recording distances above the 90th percentile more than doubled.

Year 6

For the Year 6s, there were improvements, but these were not so pronounced.

- At the beginning of the project, their average fitness levels were considerably lower (at 26% as opposed to 41% in the Year 5s). On average, their fitness levels did improve, but the overall average at the final test was still low at 38%, whilst nearly 25% of the group were still recording performances beneath the 20th percentile.
- Interestingly, the girls in this Year Group measured better improvements than the boys, which is surprising as this is traditionally the age at which girls begin to show less enthusiasm for physical activity. However, their average distance run increased more than the boys, and their percentage reduction in those scoring less than 20% was considerably higher than the boys.
- As can be seen from the results, there was a large jump in performance for the majority of the children between Test One and Test Two. In some cases, there was then a drop in performance between Test Two and Test Three, such that their best performance was actually in Test Two (rather than Test Three). This is to be expected in testing of this kind.

The performance of some children did decline. All but one of these were boys in Year 6.

Impact on self-esteem, physical self-efficacy and well-being

In relation to the findings from the personal self-efficacy and well-being questionnaires the results demonstrated slight improvements:

Year 5

- There were improvements in Self Esteem, with the average score going from 12 to 10 (a lower score is better)
- Physical Self-Efficacy stayed the same, with an average result of 26. This is the standard cut off point at which it is accepted that children have a good degree of self-efficacy.
- Wellbeing and Satisfaction also improved, with the overall average declining from 16 to 14 (a lower score is better).

Year 6

- There were improvements in Self Esteem, with the average score going from 10 to 7
- Physical Self-Efficacy stayed the same, with an average result of 25
- Wellbeing and Satisfaction also improved, with the overall average declining from 13 to 12



Pupil behaviour and classroom attentiveness

Throughout the Coppermile project the children appeared more focused in class and more resilient when completing tasks. This was particularly noticeable in some of the children who have, in the past, tended to show less resilience and motivation when faced with a challenge. Overall, the Coppermile had a positive impact on the children's behaviour and improved their overall energy levels and general well-being. The school believes that the Coppermile also contributed to excellent academic outcomes; overall the majority of pupils in both year groups made better than expected progress. In addition, during SATs week all Year 6 pupils completed the Coppermile every day before sitting each test. The results they achieved, in meeting the end of key stage 2 expectations in all areas of English and maths, was *significantly above* the estimated Waltham Forest and national standards.

Expected standard – end of KS2 (Year 6)	Coppermill School	Waltham Forest	National
Reading	92%	65%	66%
Writing	88%	81%	74%
Maths	96%	76%	70%
Grammar/Punctuation/Spelling	96%	75%	73%

COPPERMILL SCHOOL PERSPECTIVE

How the project was integrated into the school day

The class teachers made their own decisions on what times to take the children out. Year 5 classes went out after lunch and Year 6 went out first thing after registration. These times were flexible and could be changed but teachers preferred to have these set times which worked well. All three classes went out at least three times per week, but Year 5 teachers expressed a desire to do it more frequently.

Impact on behaviour, learning and self-esteem - staff feedback.

Teachers and support staff have reported that the children were more alert and attentive after they had completed their run. They were more 'learning ready' and displayed more happy attitudes. In terms of behaviour – it was noted that pupils who had previously been disruptive in the classroom and sent to see the Assistant Head had ceased this behaviour after starting the Coppermile. Also feedback from staff found that pupils they expected not to engage and 'moan' about the run had actually shown the opposite by fully engaging and participating with great enthusiasm and effort. They were also highly motivated by a determination to improve their health and their running.

Pupils' response

Pupils were self-motivated and showed real enthusiasm about the Coppermile, supporting and encouraging each other as they participated. When talking to pupils they mentioned about getting better at running but also how it improved their health. A few pupils who were aware that they were slightly overweight seemed to be the most empowered and took real ownership on making the most of the opportunity to improve their health.

Impact on the rest of school

"By introducing the Coppermile it has definitely created a culture of ownership of improving our own health and well-being and it's not difficult to do and that everyone and anyone can take part. Every child and adult can do this and it's not about winning or competition but getting active and healthy. Staff are on board because it is easy to implement, there is no preparation involved and it is fun and enjoyable as well as impacting positively on their students' attitudes. It also creates a culture of support, encouragement and teamwork that is based on individual improvement.

It did not take long... and surprisingly to me, for other staff to start taking their classes out for the Coppermile. It somehow created a ripple effect and everyone wanted to join in." Figen Bektaşoğlu.

CONCLUSIONS

This three-month pilot project has demonstrated how a simple low cost physical activity initiative can significantly improve the physical health and well-being of primary school pupils. By having a shared vision and a clear idea of what success looks like and how it should be measured, the project also highlights the importance of partnership working. What made it work was commitment from the Head Teacher, staff and pupils, easy access to a safe and clearly marked track and a simple measurement methodology.

The introduction of a daily period of exercise, where pupils can perform at their own level and with no special clothing or equipment requirements, shows how easy it is to overcome the traditional barriers to participation in physical activity. With encouragement from staff and peers, a significant number of children improved their fitness levels and the school reported improved behaviour and levels of academic attainment.

The project also highlights how the wider use of playing fields, beyond the weekend pitch sport bookings, can make a positive contribution to their local communities. Playing field providers need to reach out into their community to engage with organisations and local people who do not normally benefit from their facilities as they are not part of the mainstream sporting infrastructure. Through increased usage these 'green hearts' will become more relevant to the local community, more highly valued and more resistant to the threat of built development.

The intention now is to share the experience of the Coppermile project with other schools and playing field providers so that they can implement something similar in their own setting.

CONTACT DETAILS

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