Southwark

Clean Air 4 Schools programme

Final report

September 2014

Contents

Executive summary

During the academic year 2013/14 six of Southwark's primary schools were engaged in an innovative and creative Cleaner Air 4 Schools project which sought to educate students through lessons, workshops, activities and assemblies. The project aims were to:

- Raise awareness of the risks of air pollution
- Monitor air pollution
- Identify how students can protect themselves from poor air quality
- Help pupils and families know what they can do to reduce their own impact on air quality, in particular with regard to changing travel behaviour
- Improve school travel plans
- Reduce the energy costs and carbon footprint of the schools

Whole school assemblies took place at each school with ex-BBC weather presenter and climatologist Helen Young and participating classes took part in a series of lessons which included:

- Citizen science work – pupils took part in experiments to measure the quality of the air around their school
- Social marketing campaign development – pupils created campaigns to address air quality problems at their school by making posters, leaflets, badges, preparing assemblies, singing songs and demonstrating to challenge parental transport choices

Who was involved?

- 6 school communities were involved in the programme, including 200 members of staff from Head teachers to site managers and kitchen staff
- 280 pupils were engaged in lessons and citizen science activities
- 1700 pupils were exposed to messages regarding air quality and pollution via peer to peer assemblies, schools websites and in-school displays
- 2000 families/parents/carers received messages about how to reduce their own impact on local air quality and information on ways to protect themselves and their families from poor air quality

What were the results?

The Key Stage 2 citizen science elements of the programme captured the imagination of pupils and staff and helped generate a real interest in the subject area. The activities undertaken by the schools demonstrated that air quality was a significant issue in the locality of almost all of the schools involved. Five of the six schools were found to have levels of Nitrogen Dioxide (NO_2) in excess of EU limits, particularly close to busy roads. Tower Bridge Road (A100) within 200m of Grange Primary was found to have NO_2 levels as high as 84 $\mu g/m^3$, over double the current air quality standard.

Over all there was a 15% increase in knowledge and awareness of participating pupils.
Pupils in participating classes showed a 39% to

58%, increase in knowledge of the names of individual pollutants with a 11% to 30% increase in pupils agreeing that 'It's healthier for us to walk on back streets with less traffic'.

Pupils enjoyed the lessons and were happily engaged in the majority of the work, 70% of pupils either *liked* their class being involved in the programme or *liked it a lot*.

The pupils favourite element of the programme was the lessons on developing and running their own campaign, 84% of pupils said they either *liked* this element or *liked it a lot*.

Four schools held on-street campaigns where they directly addressed parents driving and engine idling habits. It was these pupil-led activities that absorbed them thoroughly and resulted in greatest engagement and learning. Pupils also used social media methods in their campaigns using websites, 'news reports', and on-line blogs to promote their message and showcase the work they were doing. All participating schools developed or updated their School Travel Plan.

All schools were given sustainability audits and grant funded improvements to their heating systems resulting in substantial financial and carbon savings.

Overall the evaluation indicates that the project was very effective in raising awareness of air quality issues and influencing sustainable travel behaviours within the school community.

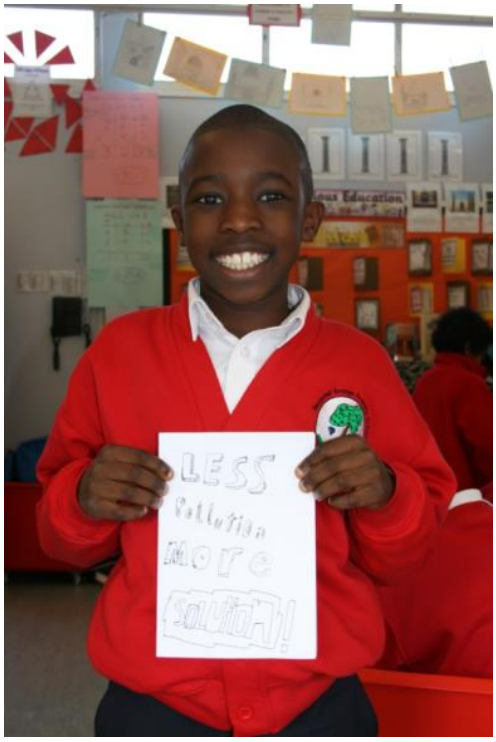
The project has demonstrated the benefit of working with pupils to develop pupil-led campaigns and of effectively using class time to raise the awareness of the whole school community.

Valuable lessons have been learned regarding the delivery of the programme in London's schools and these are documented.

This project would not have been possible without funding from DEFRA, Southwark's Childrens Services and Transport Planning Services, and the and the dedication of Southwark's Environmental Protection Team, the staff of Parose Projects and the school staff involved.

Section A

Introduction



The London Borough of Southwark engaged Parose Projects to deliver the Cleaner Air 4 Schools programme at 6 primary schools in the borough between 25th February 2013 and 31st December 2013. The project was funded by the Government (the DEFRA Air Quality Grant programme), LB Southwark's Sustainable Travel and Road Safety Team (TfL Local Implementation Plan funding) and Southwark Council's Children's Services budgets.

The project was built around the GLA commissioned Cleaner Air for Schools Toolkit.

Southwark Council's specific requirements included:

- Prepare a programme for each school to deliver the CA4S toolkit having regard to the aims, objectives and targets of Southwark Council's Air Quality Action Plan and the school travel plans in particular
- Deliver the programme at these schools
- Communicate the relevant issues to school staff, parents and the wider school community
- Evaluate the programme in accordance with an agreed methodology and measures, and
- Outline further activities/measures which could be considered for the future

Images: Pupils at Bessemer Grange Primary with their campaign work

Aims of the programme

The overall aim of the project was to look for innovative and creative ways to educate Key Stage 2 students through lessons, workshops, activities and assemblies. With a focus on:

- Raising awareness of the risks of air pollution
- Identifying how students can protect themselves
- What they can do to reduce their own (and their families impact) on air quality, with regard to transportation modal shift on the school run in particular

Secondary aims were to communicate air quality issues to the school staff, parents and the wider school community.

- Ensure teachers, the site manager and the Head teacher are all aware of the measures that can be taken to protect the health of students and staff at the school
- Promote the CA4S agenda to the parents and wider school community
- To carry out and report on NO_2 monitoring done at the schools

How schools were shortlisted

Six primary schools were selected based on a number of factors.

- Known areas of concern regarding air quality
- High levels of car usage on the school run
- High number of pupils on the school role
- A good geographical spread across the borough
- Willingness of the school to participate in the project

The schools chosen:

- Charles Dickens Primary school
- Bessemer Grange Primary school
- Grange Primary school
- Peter Hills with St. Marys and St. Pauls C of E Primary school
- Rotherhithe Primary school
- St Francesca Cabrini Primary school

A key requirement of the project was to prepare a suitable programme for each school having regard to the aims, objectives and targets of the Air Quality Action Plan and the School Travel Plans in particular.

Pre-programme meetings were held with each school. These included a walk-about of the local area and a discussion about sustainability, transport and health issues at the school. A checklist of issues identified the most important issues for each school and their capacity to enable the programme of lessons and activities planned for them. A bespoke action plan was then developed for each school which set out the schools achievements and challenges. Each school action plan devised is included in the Appendix 1.

Section B

Educational and awareness raising aims

Lessons activities and campaigns summary

The educational aims of the programme were to:

Image: Badge making during assembly at Bessemer Grange

- Introduce pupils to air quality issues and pollutants through a range of lessons and citizen science activities
- Increase pupil knowledge and understanding as to the activities that impact air quality and what can be done to reduce pollution
- Increase pupil knowledge and understanding about the actions they can take to reduce their exposure to pollution
- Introduce social marketing techniques and help pupils understand how to create a persuasive behaviour change campaign

(Images: Pupils with campaign work at Bessemer Grange Primary

Lessons and assembly content are detailed in the appendix 2.

Learning and campaign work

Various teaching methods for Environmental and Sustainability Education were employed as part of this work and are detailed in the following diagram. Multi-media presentations, questioning and citizen science activities were key to getting pupils to think about the issues for themselves and 'learn by doing.'

LOtC/ experiential learning	•Learning outside of the classroom allows for real experiences and connection to our environment, seeing links and making connections, permitting an understanding of the systems within which we live •Experiential learning is the process of making meaning from direct experience i.e. 'learning by experience'
Participatory learning/ action learning	•Although air quality was decided as the area of learning for pupils the area they choose to create a campaign around and the campaign itself for was decided upon by the class •**Action learning:** educational process whereby people work and learn together by tackling real issues and reflecting on their actions

Why action learning? According to Confucius,
"I hear and I forget; I see and I remember; I do and I understand".

Campaign work at each school

Integral to the educational aims of the programme were the pupil led campaigns. Each school developed their own campaign to educate and raise awareness across their school communities. The following table summarises the campaign work at each school.

Charles Dickens Primary air quality display

School	Focus of campaign	Call to action/ campaign name	Communication methods used / Resources produced
Bessemer Grange Primary	Parents idling at the school gates	'Less pollution, more solutions'	Pupil led assembly, posters, leaflets/ fliers for drivers, newsletter, car sticker design, on street delivery of leaflets to drivers, and blog, air quality song (adapted version of 'Price tag' by Jessie J) and short film. 
Rotherhithe Primary	Saving energy in school	'Save Energy' – turn off lights and computers, close windows	Pupil led assembly, posters to go around the school, film clip, leaflets. Rotherhithe pupil news team report on the website and film clip uploaded. 
Charles Dickens Primary	Saving energy in school	'Lights off, blinds open' – focus on using natural light rather than classroom lights	Pupil led assembly, posters to go around school, leaflets, air quality song (Adapted version of 'Every breath you take' by the Police) Online photos and blog. Science display in school (see page 8).
St. Francesca Cabrini RC Primary	Reducing school traffic	'Less cars: Less pollution'	Pupil led assembly, walk to school challenge, promotion of Park & Stride, postcards placed on cars, air quality song (adaptation of 'Don't you worry child' by Swedish House Mafia) 
Grange Primary	Parents idling at the school gates	'Turn it down, or a big frown'	Pupil led assembly, badges for parents, travel to school information, posters outside school, giant letters on school wall asking parents to turn engines off, leaflets, air quality song ('Pollution'). Letter from Pluto class to Southwark Council requesting engineering works outside the school to make the road one-way.
Peter Hills Primary	Parents idling at the school gates	'Engines off. Healthy kids!'	Pupil led assembly, leaflets handed out to parents, posters outside school, air quality song (adapted version of 'Just the way you are' Bruno Mars)

Pupils - Participating classes

Number of pupils reached

280 pupils across the six schools participated in lessons and citizen science activities.

Air quality monitoring methods used at each school

The table below shows the citizen science activities undertaken at each school.

School	Surface wipes	Ghost wipes	Ozone strips	Diffusion tubes
Bessemer Grange Primary	✓	✓	✓	✓
Rotherhithe Primary	✓	✓	✓	✓
Charles Dickens Primary	✓		✓	✓
St. Francesca Cabrini RC Primary	✓	✓		✓
Grange Primary	✓	✓	✓	✓
Peter Hills CofE Primary	✓		✓	✓

Pupil awareness surveys

Before and after surveys were developed and distributed to schools for completion by all participating pupils and a small control group of non-participating pupils.

The table below shows which schools provided data.

	Baseline/ Before		Follow up / After	
	Participating class/es	Non-participating class/es	Participating class/es	Non-participating class/es
Bessemer Grange Primary	Yes	Yes	Yes	Yes
Charles Dickens Primary	No	No	No	No
Grange Primary	Yes	No	Yes	No
Peter Hills Primary	No	Yes	Yes	No
Rotherhithe Primary	Yes	Yes	Yes	Yes
St Francesca Cabrini RC Primary	Yes	Yes	Yes	Yes

Three schools provided a full set of before and after surveys from both participating and non-participating classes (Bessemer Grange Primary, Rotherhithe Primary and St Francesca Cabrini Primary. In addition to this, four schools Grange Primary provided before and after surveys from participating classes. All classes (participating and non-participating attended the initial launch assembly with Helen Young). This is the data that we have used to analyse pupils awareness and learning.

Survey questions

The questions to the pupils before and after awareness survey were as follows:

1a. ***If you and your family or carer are waiting in a car for someone is it better to****…* (Correct answer of 3 options) - *Switch the engine off and wait*

1b. ***Most air pollution in London comes from…***(correct answer of 3 options) - *Cars and transport*

1c*.* ***If you or your friends have asthma and you go out on a hot sunny day in London what should you make sure you take with you…*** (correct answer of 3 options) - *Inhaler*

2. ***Put a circle around the chemicals & air pollutants that you've heard of before.***

Correct answers included: *Nitrogen Dioxide, Ozone, Particulates* and PM_{10}*'s*

3. ***Put a circle around the types of transport that help keep our air cleaner.***

Correct answers included park & stride, train, bus, walk, cycle, scooter.

4. ***Do you know what 'park & stride' means?*** (yes, no or not sure)

5. ***True or false***:

Some indoor plants can help make air quality better (true)

There is more pollution inside a car than there is on the pavement (true)

It is healthier for us to walk on back streets with less traffic (true)

Participating classes - Evaluation of improvement in knowledge against baseline for pupils at each school

The table below shows the percentage response rate of those questions answered correctly at the first and second surveys (1st survey – 2nd survey) and the extent of the change between the two (shown in brackets).

		Bessemer Grange Primary*	Rotherhithe Primary*	St. Francesca Cabrini Primary	Grange Primary
1a	It is better to switch the engine off and wait	91-100 **(+9%)**	89-100 **(+11%)**	100-100 **(0%)**	95-100 **(+5%)**
1b	Most air pollution in London comes from cars and transport	30-45 **(+15%)**	85-93 **(+8%)**	96-86 **(-10%)**	62-75 **(+13%)**
1c	Asthma/ Hot sunny day -what do you need to remember – Inhaler	97-100 **(+3%)**	96-100 **(+4%)**	100-100 **(0%)**	92-94 (+2%)
2	**Which chemicals/ air pollutants pupils had heard of**				
	Nitrogen dioxide	76-85 **(+9%)**	56-85 **(+29%)**	96-96 **(0%)**	62-81 **(+19%)**
	Particulates	15-67 **(+52%)**	4-44 **(+40%)**	44-71 **(+27%)**	46-69 **(+23%)**
	PM_{10}	3-85 **(+82%)**	4-15 **(+11%)**	0-18 **(+18%)**	0-14 **(+14%)**
	Ozone	21-85 **(+64%)**	18-89 **(+71%)**	7-96 **(+89%)**	13-73 **(+60%)**
3	**Put a circle around the types of transport that keep our air cleaner**				
	Park & stride	15-42 **(+27%)**	15-56 **(+41%)**	48-50 **(+2%)**	8-28 **(+20%)**
	Bus	0-0 **(0%)**	7-7 **(0%)**	0-0 **(0%)**	16-16 **(0%)**
	Train	18-3 **(-15%)**	4-0 **(-4%)**	7-4 **(-3%)**	3-3 **(0%)**
	Walk	82-97 **(+15%)**	67-81 **(+14%)**	100-96 **(-4%)**	92-97 **(+5%)**
	Cycle	61-100 **(+39%)**	70-85 **(+15%)**	93-93 **(0%)**	76-81 **(+5%)**
	Car	6-0 **(-6%)**	0-0	0-0	5-0 **(-5%)**
	Scooter	64-97 **(+33%)**	67-81 **(+14%)**	85-25 **(-60%)**	73-75 **(+2%)**
4	I know what park & stride means	36-42 **(+6%)**	22-48 **(+26%)**	100-100 **(0%)**	28-46 **(+18%)**
5a	Some indoor plants can help make better air quality	52-73 **(+21%)**	74-70 **(-4%)**	74-64 **(-10%)**	72-65 **(-7%)**
5b	There's more pollution inside a car than there is on the pavement	27-30 **(+3%)**	59-41 **(-18%)**	44-93 **(+49%)**	38-41 **(+3%)**
5c	It's healthier for us to walk on back streets with less traffic	61-91 **(+30%)**	78-89 **(+11%)**	70-93 **(+23%)**	62-78 **(+16%)**

The table below shows a summary of the results from the pupils before and after attitude and awareness surveys.

Question	Bessemer Grange Primary*	Rotherhithe Primary*	St Francesca Cabrini Primary	Grange Primary
1	+9%	+8%	-3%	+6%
2	+52%	+38%	+34%	+29%
3	+15%	+16%	-11%	+5%
4	+6%	+26%	0	+18%
5	+18%	-4%	+21%	+4%
Overall % shift	**+20%**	**+17%**	**+7%**	**+12%**

All participating classes showed overall improvement in awareness and understanding. Displayed increase in knowledge / understanding at St Francesca Cabrini Primary was not as high as Bessemer Grange Primary and Grange Primary but it must be noted that there was a high percentage of correct answers from St Francesca Cabrini pupils in the first survey indicating a good level of prior knowledge.

What is noticeable is that the highest percentage shifts were found for question 2 where children were asked to identify pollutants and chemicals that they had heard of before. The largest increases in correct numbers of responses were found on this question – ranging between 9% and 89%. All participating classes increased the number of correct answers for this question.

Also worthy of note is the fact that the two schools who received the 2-3 days intensive programme were the schools where participating classes showed the greatest percentage shift in knowledge. This may be linked to the level of intensity of the programme and that children were immersed in the subject matter for longer periods of time. Another factor that may have contributed to Grange and St Francesca Cabrini demonstrating lower levels of shift in knowledge and awareness was that there was a short delay carrying out their baseline surveys, meaning that they potentially received the launch assembly before they completed the baseline survey.

Question 5 and question 1c were used to assess whether pupils had picked up messages around personal protection strategies.

Question 1c asked: *If you or your friends have asthma and you go out on a hot sunny day in London what should you make sure you take with you…* (Correct answer of 3) - *Inhaler*.
This had a very high rate of respondents answering correctly – and all participating classes had a higher rate of correct responses at the 2nd survey. With three schools participating classes hitting 100%, and one 94%.

Question 5 asked: *True or false*:

5a. *Some indoor plants can help make air quality better* (true)
5b. *There is more pollution inside a car than there is on the pavement* (true)
5c. *It is healthier for us to walk on back streets with less traffic* (true)

Question 5a - The indoor plant question was a red herring in that this generally had not been covered explicitly in any of the schools, which was reflected in the fact that correct responses at three out of four participating classes decreased.

Question 5b - Three out of four participating classes increased the percentage of correct answers to question 5b. One school showed a 49% increase, two showed 3% increase and one school (Rotherhithe) an 18% decrease. Interestingly Rotherhithe's pupil chosen campaign focussed on saving electricity so there would have been less of a focus on traffic and transport fumes towards the end of the schools programme, which possibly contributed to this figure.

Question 5c – All four schools showed an increase in correct responses to this question – of between 11% and 30%.

Evaluation of improvement in knowledge against baseline for pupils in participating classes overall

Over all, at schools that provided before and after survey results, there was, on average, a 15% increase in the knowledge and awareness of participating pupils (i.e. pupils answering survey questions correctly compared with the baseline survey).

Lessons learned

- Intensive sessions with fewer hours teaching appear to be just as effective at increasing knowledge and awareness as one lesson a week for a whole term.
- Ensure baseline surveys are carried out well before the onset of the programme of assemblies and lessons.
- The pupil led element of the campaign can impact to some degree upon what the children learn and remember. For example, where a school focused on 'saving electricity' rather than vehicle use they pick up fewer messages about travel and related protection strategies (i.e. park and stride, walking on back streets, etc.)
- Ensure teachers and staff from Southwark's School Travel Plan Team is involved in the classroom elements to train them in the content and use of the toolkit to integrate air quality messages into the travel planning process/assistance.

Conclusions and favoured future targeting options

- Encourage schools to choose a condensed delivery option.
- Focus pupils on campaigns about travel and transport rather than the more general carbon agenda.

Pupils not involved in the programme

Number of pupils reached

As well as those pupils involved in lessons approximately 1770 children received messages via assemblies (provided both by Parose Projects and their peers involved in the lessons), displays in school, school websites and outdoor campaign work.

Methods at each school

The table below shows methods of communicating messages to pupils who were not directly involved in the Cleaner Air 4 Schools lessons.

	Bessemer Grange Primary	Rotherhithe Primary	Charles Dickens Primary	St Francesca Cabrini Primary	Grange Primary	Peter Hills Primary
Website	✓	✓	✓			
Blog	✓		✓			
Video/ news report	✓	✓				
Helen Young (Parose assembly)	✓	✓	✓	✓	✓	✓
Peer to peer assembly	✓	✓	✓	✓	✓	✓
On-street Campaign outside of school	✓			✓	✓	✓
In school display / poster development	✓	✓	✓		✓	✓

Evaluation of improvement in knowledge against baseline at each school for non-participating classes

The table below shows the percentage response rate for those pupils who answer correctly at the first and second surveys (1st survey – 2nd survey) and the extent of the change between the two (shown in brackets).

		Bessemer Grange	Rotherhithe	St. Francesca Cabrini
1a	It is better to switch the engine off and wait	100-97 **(-3%)**	82-95 **(+13%)**	96-88 **(-8%)**
1b	Most air pollution in London comes from cars and transport	95-84 **(-11%)**	75-71 **(-4%)**	46-28 **(-18%)**
1c	Asthma / Hot sunny day - remember your inhaler	92-92**(0%)**	82-81**(-1%)**	88-96**(+8%)**
2	**Which chemicals/ air pollutants pupils had heard of…**			
A	Nitrogen dioxide	63-62 **(-1%)**	46-81 **(+35%)**	67-64 **(-3%)**
B	Particulates	0-19 **(+19%)**	14-29 **(+15%)**	13-20 **(+7%)**
C	PM10	3-19 **(+16%)**	1-14 **(+13%)**	0-4 **(+4%)**
D	Ozone	37-30 **(-7%)**	7-24 **(+17%)**	13-12 **(-1%)**
3	**Put a circle around the types of transport that keep our air cleaner**			
A	Park & stride	47-46 **(-1%)**	4-24 **(+20%)**	58-20 **(-38%)**
B	Bus	5-19 **(+14%)**	14-0 **(-14%)**	4-0 **(-4%)**
C	Train	8-0 **(-8%)**	7-10 **(+3%)**	4-0 **(-4%)**
D	Walk	92-84 **(-22%)**	64-90 **(+26%)**	75-84 **(+9%)**
E	Cycle	87-78 **(-9%)**	61-71 **(+10%)**	71-92 **(+21%)**
F	Car	3-0 **(-3%)**	14-0 **(-14%)**	0-0
G	Scooter	79-59 **(-20%)**	39- 62 **(+23%)**	63-60 **(-3%)**
4	I know what Park & Stride is	95-76 **(-19%)**	11-48 **(+37%)**	63-60 **(-3%)**
5A	Some indoor plants can help make better air quality	53-59 **(+6%)**	46-67 **(+21%)**	42-64 **(+22%)**
B	There's more pollution inside a car than there is on the pavement	13-46 **(+33%)**	32-14 **(-18%)**	21-36 **(+15%)**
c	It's healthier for us to walk on back streets with less traffic	71-68 **(-3%)**	54-67 **(+13%)**	50-48 **(-12%)**

The table below shows a summary of the results from the pupils before and after attitude and awareness surveys.

Two non-participating classes (at St Francesca Cabrini Primary and Bessemer Grange Primary) showed no over-all change (although at individual question level some answers showed an increase in correct responses and some showed a decrease).

All non-participating classes showed an increase in pupils who had heard of pollutants. Rotherhithe primary school's non-participating class showed an overall 15% increase in awareness and understanding but this was not as large as the increase shown by the participating class.

Q. no.	Bessemer Grange Primary	Rotherhithe Primary	St Francesca Cabrini Primary
1	-5%	3%	-6%
2	7%	18%	2%
3	-6%	11%	-3%
4	-19%	37%	-3%
5	12%	5%	12%
Overall % shift	-2%	+15%	0
			No change

As with participating classes, one factor that could have contributed to non-participating classes at Grange and St Francesca Cabrini Primary schools demonstrating no overall increase in knowledge and awareness is that there may have been a delay carrying out their baseline surveys, meaning that the pupils potentially received the launch assembly before the baseline survey was completed.

Questions 1c and 5 were used to assess whether pupils had picked up messages around protection strategies.

Question 1 c asked: *If you or your friends have asthma and you go out on a hot sunny day in London what should you make sure you take with you…* (Correct answer of 3) - *Inhaler.*
Non-participating classes average score for this question at the 2nd survey was 90% correct. St Francesca Cabrini increased from 88-96%. Bessemer Grange non-participating pupils stayed the same at 92% correct responses. And Rotherhithe Primary pupils dropped from 82-81% correct.

Question 5 asked: *True or false*:

5a. *Some indoor plants can help make air quality better* (true)
5b. *There is more pollution inside a car than there is on the pavement* (true)
5c. *It is healthier for us to walk on back streets with less traffic* (true)

Question 5a – The indoor plant question was a red herring. This subject had not been covered explicitly in any of the schools. This was reflected in the fact that correct responses at three out of four participating classes decreased. Yet in all three non-participating classes the rate of correct responses increases by between 6% to 22%.

Question 5b – Bessemer Grange Primary and St Francesca Cabrini Primary's non-participating classes increase the rate of correct answers to this question by 33% and 15% respectively. Rotherhithe Primary had an 18% decrease.

Question 5c – Rotherhithe Primary increased correct responses for this question (13%), while Bessemer Grange Primary and St Francesca Cabrini Primary had reductions in correct responses, 3% and 12% respectively.

Evaluation of improvement in knowledge against baseline overall

Overall there was a 4% increase on average across the three non-participating classes providing data. However, it should be noted that there was largely overall no change at Bessemer Grange and St Francesca Cabrini and a significant increase at Rotherhithe Primary of 15%.

Lessons learned

There was significant staff involvement at Rotherhithe Primary and lots of promotional activities were undertaken the including a video news report by pupils which was posted on the website and shown in an assembly. Their campaign also featured an on-street campaign. These pupil led efforts to communicate messages to the wider school community and school staff acting in a sense as 'air quality champions', this is likely to be the factor in the overall increase of knowledge and awareness for non-participating classes.

Conclusions and favoured future targeting options

- Support and develop a network of air quality champions in participating schools
- Ensure communications to the wider community and participating pupils peers are pupil led including assemblies and, where possible, the use of social media, video or film work

School staff

Number of teaching staff reached

Around 20 teaching staff directly participated in the programme – 10 class teachers and 10 teaching assistants, all associated with the participating classes.

A further 27 members of staff (including head teachers, deputy heads, school travel plan coordinators, school office staff and site managers) were closely involved in the project, receiving regular updates and having full knowledge of the aims of the programme.

A further 144 teachers and teaching assistants could be described as non-participating but would have been exposed to messages via assemblies, in-school displays and the Cleaner Air 4 Schools pledge postcard.

Methods at each school

The table below shows the methods that were used to engage and pass messages to schools staff at each school.

	Bessemer Grange*	Rotherhithe*	Charles Dickens	St. Francesca Cabrini	Grange	Peter Hills
Helen Young (Parose assembly)	✓	✓	✓	✓	✓	✓
Peer to peer assembly	✓	✓	✓	✓	✓	✓
On-street Campaign outside of school	✓			✓	✓	✓
In school display / poster development	✓	✓	✓		✓	✓
Cleaner Air Pledge postcard	✓	✓	✓	✓	✓	
Liaison with Travel plan coordinator involvement	✓	✓	✓	✓	✓	✓

Staff awareness surveys

Staff baseline awareness surveys were paper surveys distributed via the main project contacts at each school. The number returned varied from school to school.

It was decided the follow-up survey should be carried out on-line in an attempt to minimise paper and hours inputting.

The response rate to the on-line survey was very poor with 6 staff completing the survey.

Lessons learned

- Don't try to carry out evaluation work close to holiday periods
- Avoid on-line surveys. Response rates will depend upon the culture of the school in question

Conclusions and favoured future targeting options

- Pupils could be involved in surveying staff
- Paper surveys should be considered as the best option for staff surveys
- Ensure teaching staff are involved in delivery of the programme, if only to support children for whom English is not a first language

Parents and Carers

Number of parents reached

2000 families/parents received messages about air quality through school newsletters, websites and pledge postcards.

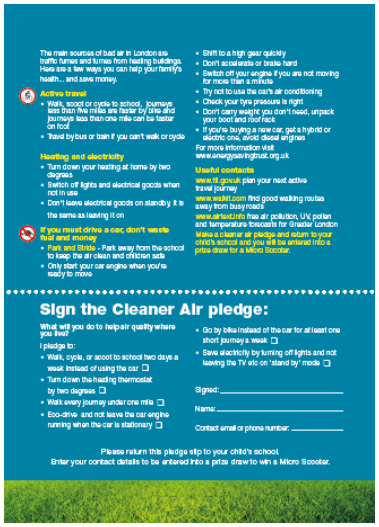
Methods and level of parental engagement at each school

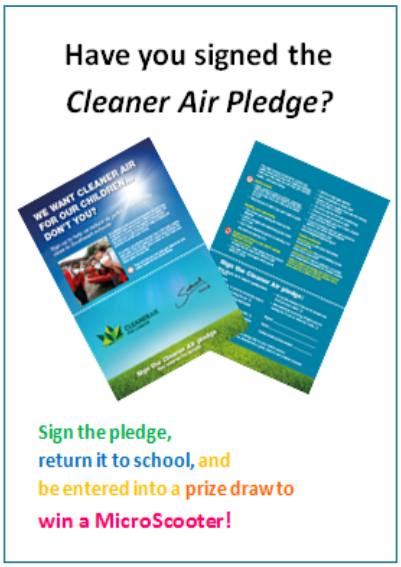
- Parents were invited to assemblies both the launch assembly and the pupil led end of programme assembly. Small numbers did attend these at each school.
- A cleaner air pledge postcard went home in every child's book bag (except for Peter Hills Primary)
- On-street campaigns
    - St Francesca Cabrini Primary pupils put postcards on cars
    - Grange Primary had laminated letters outside of the school asking parents to turn their engines off
    - Peter Hills Primary had posters outside of school on the fence
    - Bessemer Grange Primary pupils delivered leaflets to drivers in the road outside the school
- Grange Primary pupils made badges for parents
- Peter Hills Primary pupils delivered leaflets home to parents

Cleaner Air Pledge post cards

A simple method of communicating to parents the key messages around the campaign was conceived which would also provide a feedback mechanism so we could assess which changes parents/carers were willing to make to their lifestyles. Following, the two sides of the postcard can be seen. A simple poster was also provided to schools to raise awareness of the postcard and associated prize draw that returned pledges would be entered into.

The postcard was distributed to all families at 5 of the 6 schools.





Pledge results

Despite the prize of a micro-scooter the response rate to the postcard pledge was very poor. Various factors played a part but the most important was timing – the postcards took much longer than anticipated to design and print. This delayed their distribution to the last week of the autumn term, with some parents getting them the final day of school before the Christmas break when other matters would be more pressing on families.

Parent awareness surveys

Paper-based baseline awareness surveys were distributed in pupil's book bags to parents at each school. The numbers returned varied from school to school.

It was decided the follow-up survey should be carried out on-line in an attempt to minimise paper and hours inputting. It was considered that a better response rate might have been achieved using this method.

The response rate was extremely poor and no parents completed the survey.

Three of the participating schools promoted the survey to parents with Peter Hills advertising a link to the survey in their school newsletter two weeks running.

A short article with photos was provided to each school detailing winners of the 'before' survey and availability of 2nd prize draw in an attempt to get parents to take interest.

Lessons learned

- The quality of school communication with parents can be variable. Future projects need to target parents independently of the school for information gathering and awareness raising.
- Prepare information for the schools website and newsletters and work directly with the staff who put together school publications.
- Use paper based communications.
- Consider the use of school gate market research techniques with parents.
- Communicating with parents and pupils the week before a holiday break is ineffective.
- Ensure prizes are desirable to the age group you are working with. Key Stage 2 pupils would have been more interested in a bike than a scooter.

Conclusions and favoured future targeting options

The lack of success of the pledge element of the post card does not necessarily mean that the postcard was unsuccessful in passing messages to parents. Five schools distributed the postcard to their families and it is likely that the postcard was looked at by at least one family member.

- In future parents surveys could be collected by independent market research officers in the playground or at the school gate. Or children could be asked to survey their parents as a homework activity.
- Another option could be to give fliers out at the school gate with details for the prize draw offer.

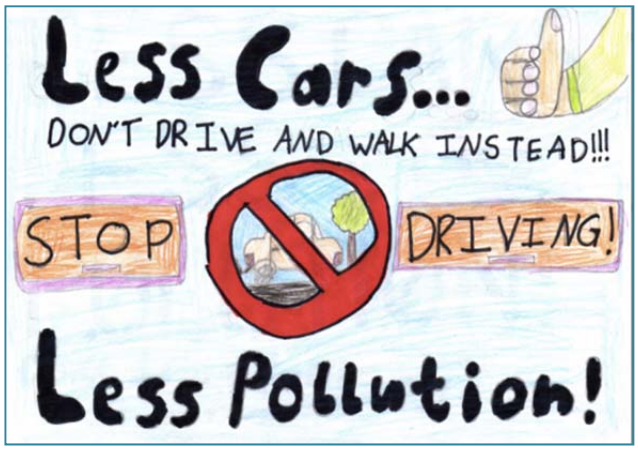
Section C

Evaluation of value of elements of the toolkit

The following table summarises activities which took place at the schools with regard to assembly and lesson delivery. There were two methods of delivery. One lesson a week across a term and a more intense version of delivery over two to three days. Two schools, Bessemer Grange Primary and Rotherhithe Primary chose to have the intense delivery option rather than a lesson a week for a number of weeks over a half term.

Core elements of the project that all schools covered and the methods used were as follows:

	Bessemer Grange Primary	Rotherhithe Primary	Charles Dickens Primary	St. Francesca Cabrini RC Primary	Grange Primary	Peter Hills C of E Primary
Weekly sessions			X	X	X	X
Intensive sessions	X	X				
When?	13th, 14th, 28th November	9th, 10th, 24th October	Mondays	Thursdays	Wednesdays	Tuesdays
Which pupils:	2 yr 6 classes	Year 5 class	3 x Y 5 class	Year 6 class	Y5 class	Y5 class
Assembly	13th November	14th October	13th September	12th September	11th September	3rd October
Lesson 1 introduction	13th November	9th October	13th September	12th September	11th September	3rd October
Lesson 2 Data gathering	13th November	9th October	16th September	3rd October	2nd October	8th October
Lesson 3 Data analysis	13th November	10th October	14th October	24th October	6th November	5th November
Lesson 4 Action planning	14th November	10th October	4th November	21st November	20th November	12th November
Lesson 5 campaign creation	14th November	11th October	11th November	28th November	27th November	19th November
Lesson 6 Assembly prep and evaluation	28th November	24th October	25th November	5th December	4th December	26th November
Lesson 7 Assembly prep and evaluation	28th November	24th October	2nd December	Early January 2014	Early January 2014	3rd December
Assembly	9th December	25th November	5th December	Early January 2014	Early January 2014	11th December



Lessons learned

- As mentioned previously in relation to pupils awareness raising, it appears that pupils participating in more intensive method of delivery had greater increases in knowledge and awareness.
- The delivery of citizen science lessons fits better with a more intense style of delivery as gaps between lessons can be arranged to allow for results to be returned from laboratories.

Conclusions and favoured future targeting options

- Use the intensive method of delivery where schools are willing and able to accommodate this.

Section D

Environmental Monitoring Results

Citizen Science summary

Diffusion tubes

Diffusion tubes to measure Nitrogen Dioxide (NO_2) were installed at all schools, at previously agreed sites on Friday 27th September and were collected on Friday 25th October. Maps showing the location of all diffusion tubes, and where all measurements for other monitoring took place are below.

All the schools used diffusion tubes as part of citizen science work in Lesson 2. Rotherhithe, Charles Dickens and St. Francesca Cabrini placed diffusion tubes 200 metres from the school in each cardinal direction (North, East, South and West). Peter Hills (due to the river being very close to the school) used three diffusion tubes, and Charles Dickens used 8 diffusion tubes in total.

Diffusion tubes put up by pupils were exposed on location for a shorter time than those put up by Parose Projects as a result of needing to fit with the teaching programme.

An additional round of diffusion tubes was installed by Parose Projects in November 2013, and collected in at the end of December 2013. The results of these and the pupil's diffusion tubes are shown in the following graphs.

Other Citizen science methods

Each school used other measurement methods to help pupils learn more about air quality and pollution in their local area. These included:

Ozone strips – measure the levels of atmospheric ozone at ground level. Ozone strips were exposed for approximately 10 minutes at three locations, up to 200m from school. The change of colour indicating presence of ozone at ground level.

Surface wiping – where cotton wool is used to rub surfaces where particulate matter collects. Pupils used cotton wool, to wipe surfaces (lampposts, railings) at heights of 30, 60, 90 and 120 cm at three locations up to 22m from school.

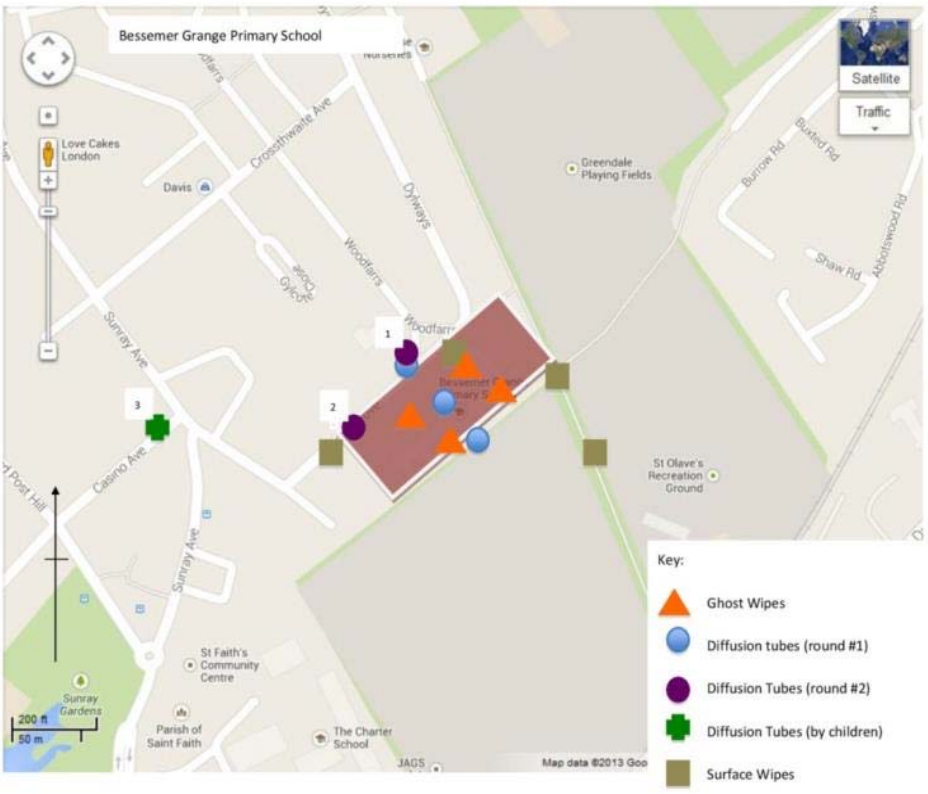
Ghost wipes – where special wipes are used on windows to measure the levels of heavy metals collected. Measurements were taken on windows of school building. M1 = measurement 1. M2 = measurement 2 (one week later at exactly the same spot.)

Not all methods were used in all schools.

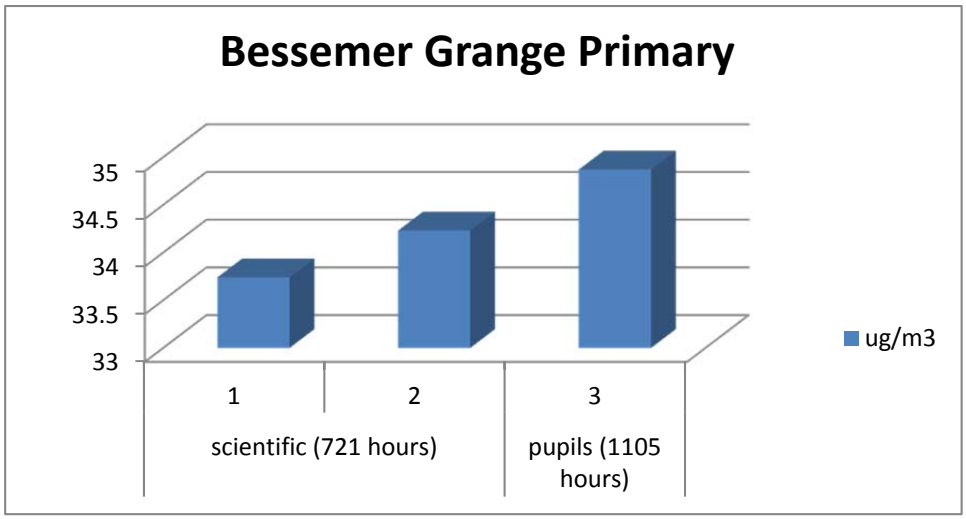
(Images: Pupil at Bessemer Grange working with Diffusion tubes (top)/ Pupils at Rotherhithe Primary carrying out a Ghost wipe (bottom))

Results for each school

Bessemer Grange Primary - Location description: Furthest school from a main road, leafy area.

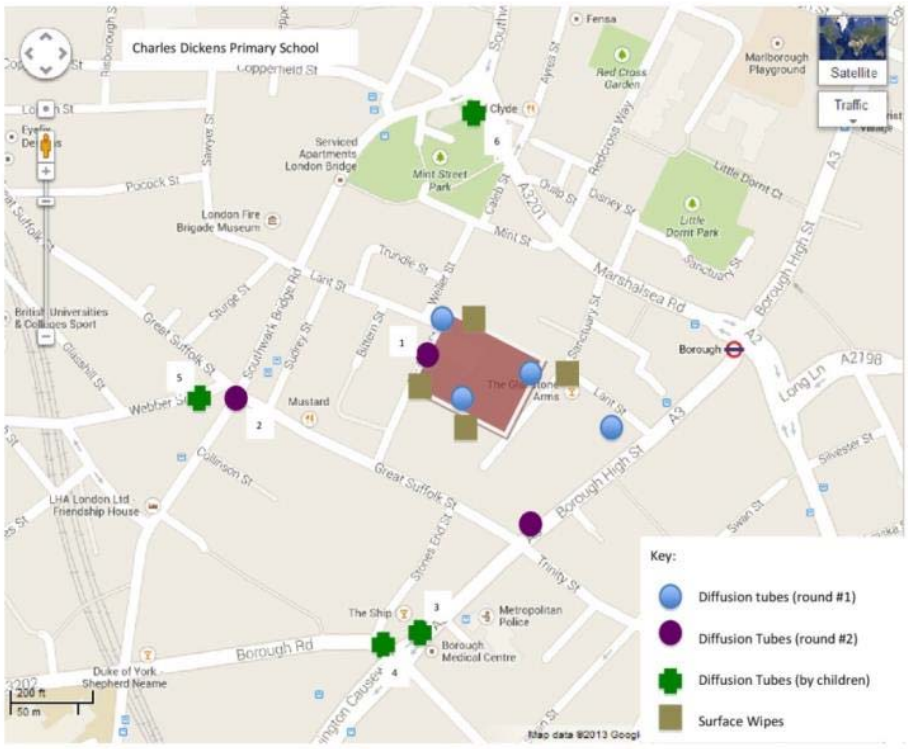


Diffusion tube results

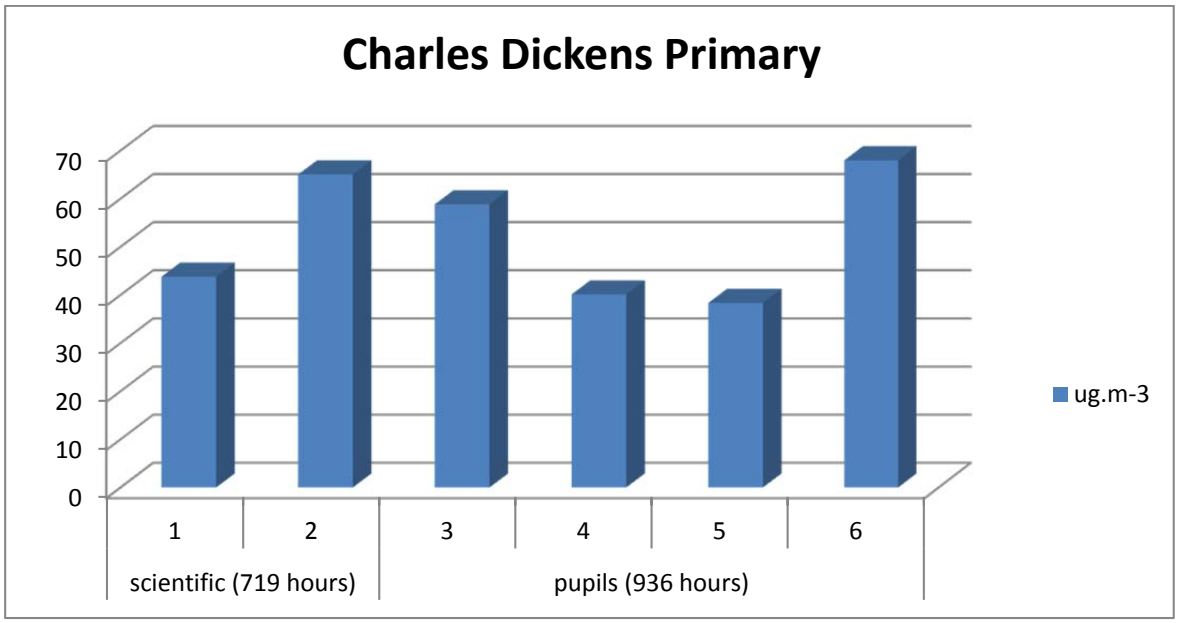


School	Surface wipes	Ghost wipes	Ozone strips	Diffusion tubes
Bessemer Grange Primary	Most PM_{10} to east and west of school at 30 and 60cm heights	Baseline school (away from busy roads) Chromium, Lead, Nickel and Vanadium <1μg, except for Bessemer Grange South which was reported as 31μg. This was clearly contaminated despite being carried out as directed and using gloves.	A small amount of ozone (O_3) found in all directions, except south of school	Lowest levels of NO_2 across all schools – average of 34.3μg.m^{-3}.

Charles Dickens Primary - Location description: School located closest to central London (SE1)

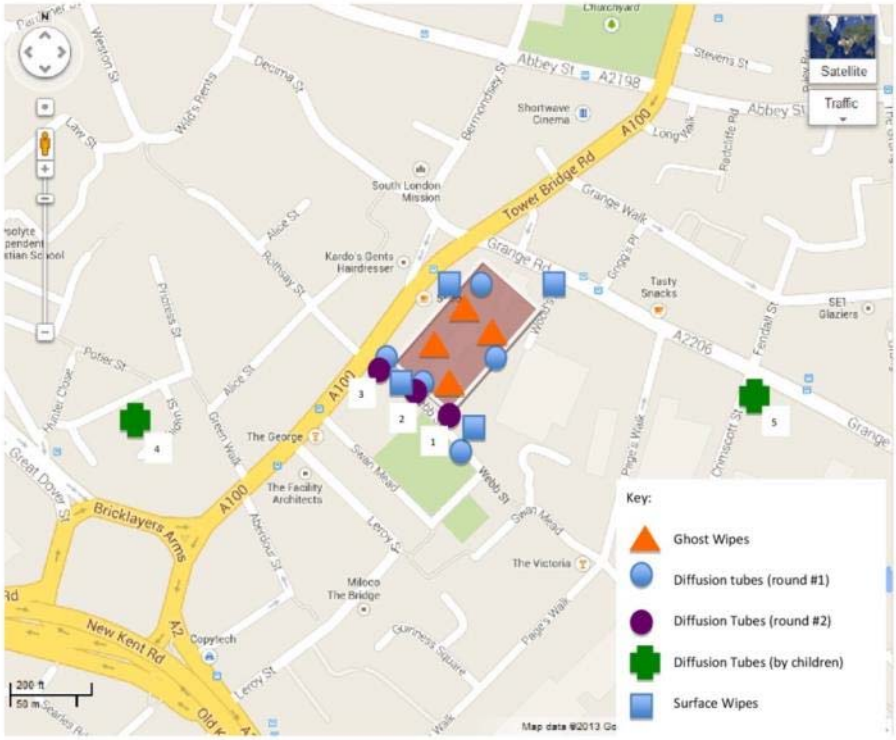


Diffusion tube results

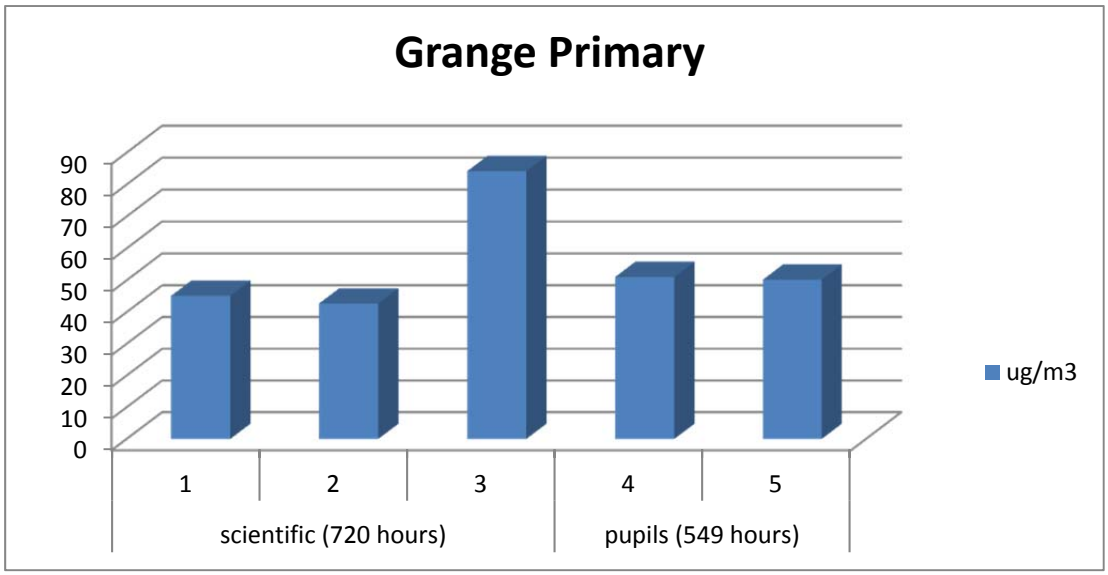


School	Surface wipes	Ghost wipes	Ozone strips	Diffusion tubes
Charles Dickens Primary	Highest PM_{10} found 200m from school in all directions. At higher level to east and lower in south	N/A	A small amount of ozone (O_3) found to the east of school (at highest level), also to north and south of school	Average of 52.35μg.m^{-3} but one measurement located at Southwark Bridge Rd was highest off all at 65μg.m^{-3}.

Grange Primary - Location description: On the inner ring-road (A100)



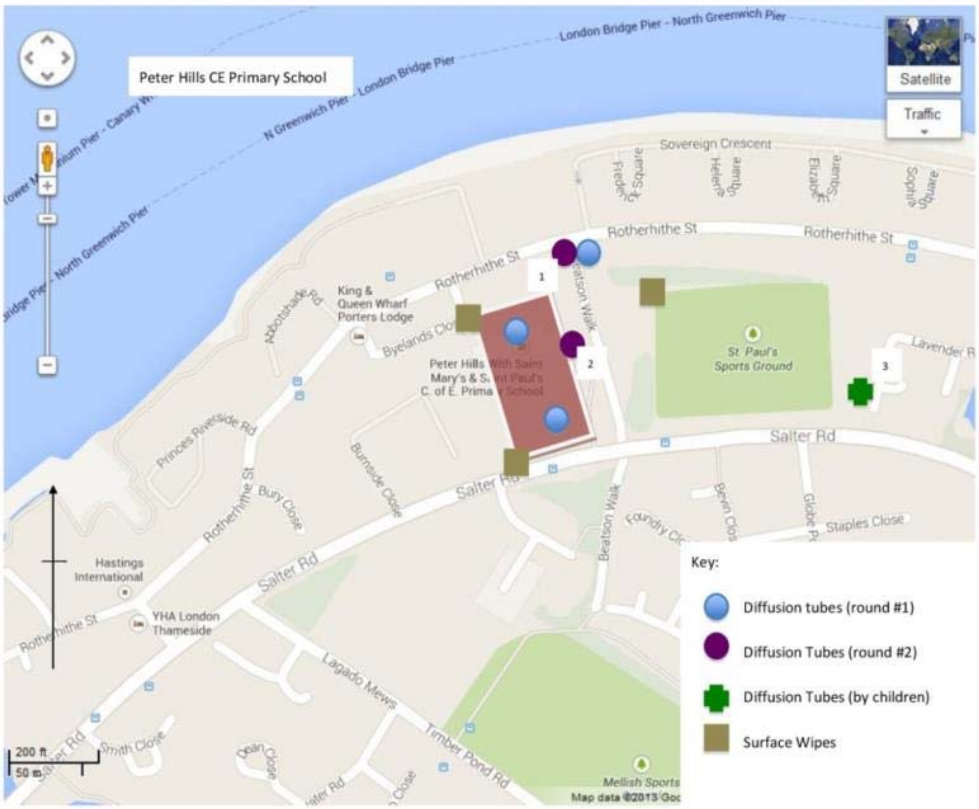
Diffusion tube results



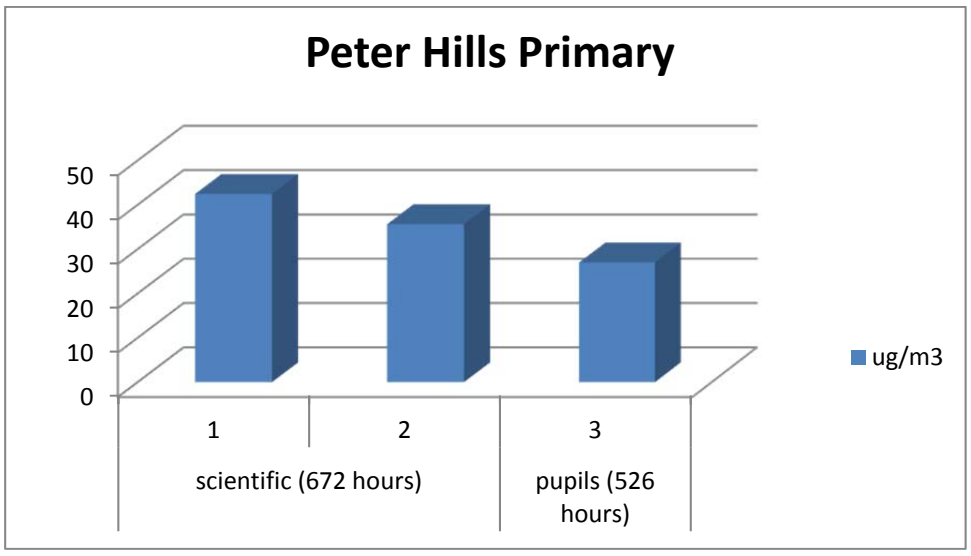
* Analyst's view was that this was due to paint containing lead on the window frames.

School	Surface wipes	Ghost wipes	Ozone strips	Diffusion tubes
Grange Primary	HighestPM_{10} levels found to west (30cm) and north of school (60, 90 and 120cm)	North- **4µg Lead*** (M1) **/3µg**(M2) All other results <1µg At M2 – North, South and North -**3µg lead.** All other results were <1µg	Small level of ozone (O_3) detected all directions except north of school	Average of 54.6µg.m^{-3}, second highest measurement at Tower Bridge Road at 84.2µg.m^{-3}.

Peter Hills with St Marys and St Pauls C of E Primary - Location description: Most easterly located school and closest to the river



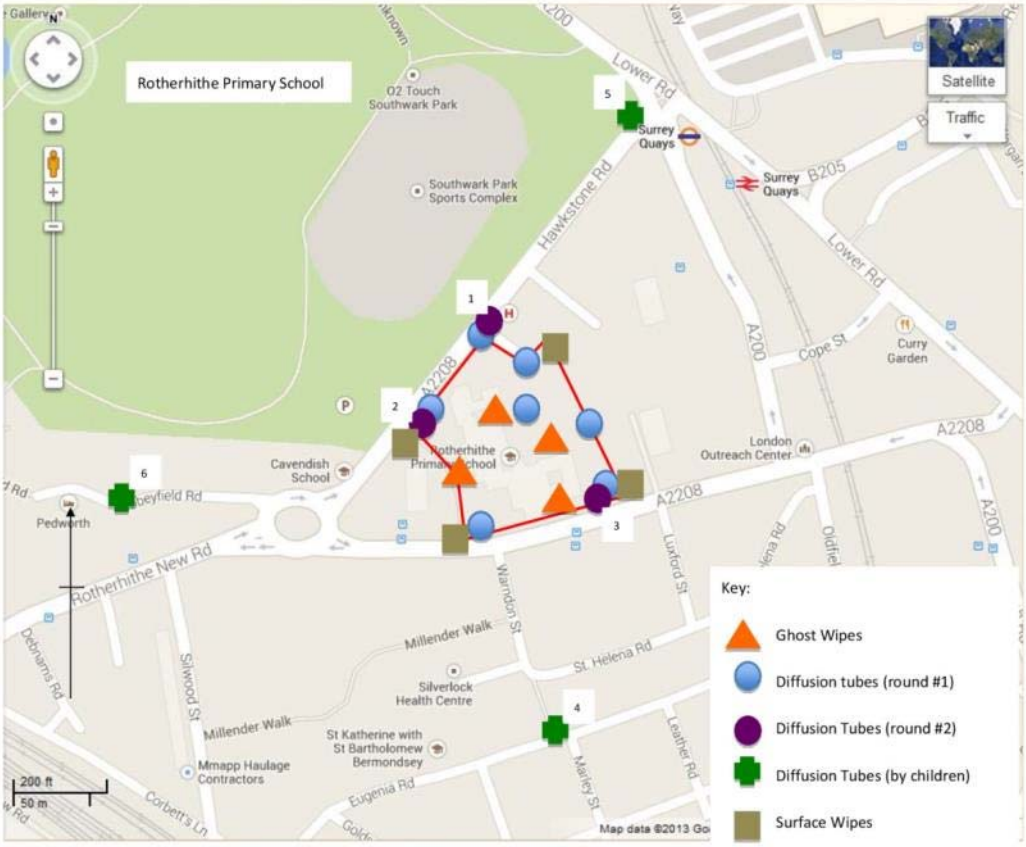
Diffusion tube results



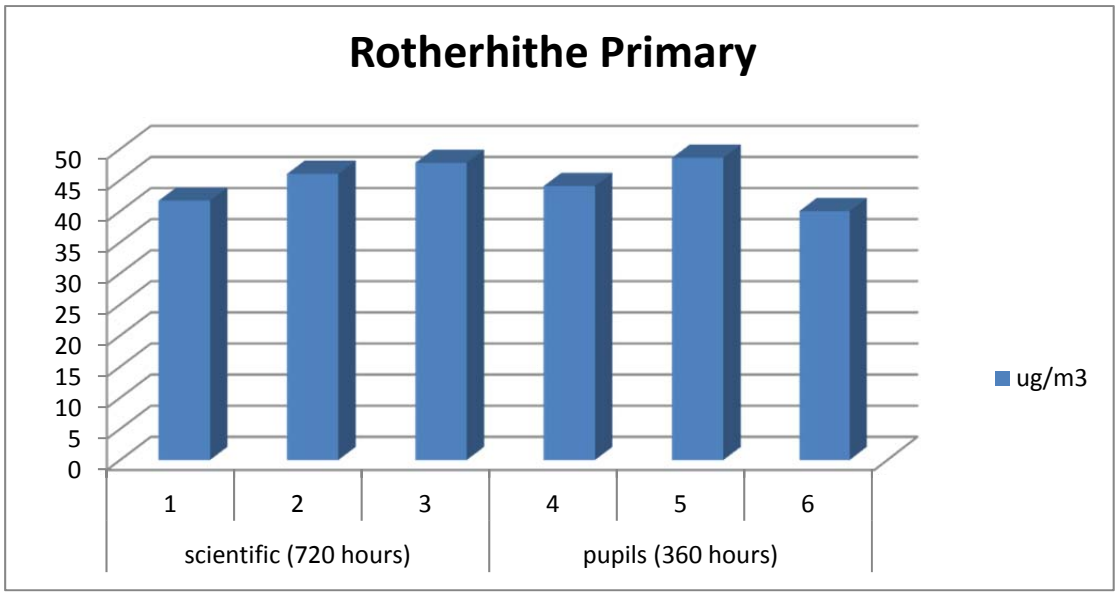
NB. No north group at Peter Hills Primary

School	Surface wipes	Ghost wipes	Ozone strips	Diffusion tubes
Peter Hills CE Primary	Highest particulate matter east (120cm) and west (30cm) of school	N/A	Small level of ozone (O_3) detected east of the school	Average of 35μg.m^{-3}. The corner of Rotherhithe Street and Beatson Walk had highest levels with 42.5μg.m^{-3}

Rotherhithe Primary - Location description: Close to the junction of two A roads

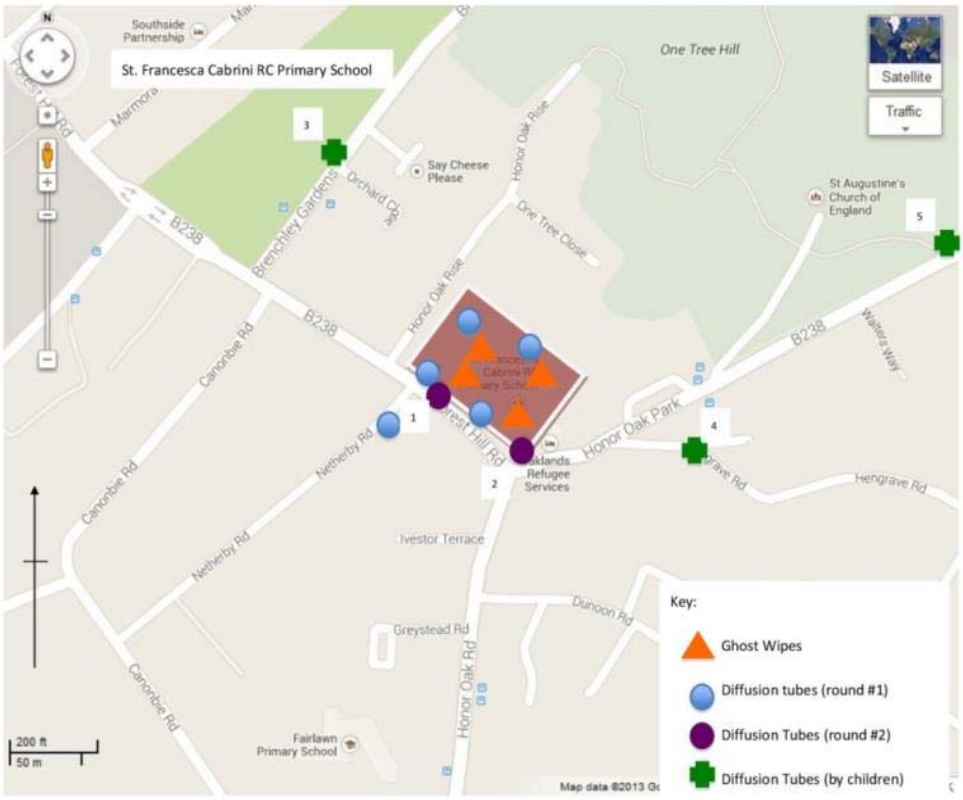


Diffusion tube results

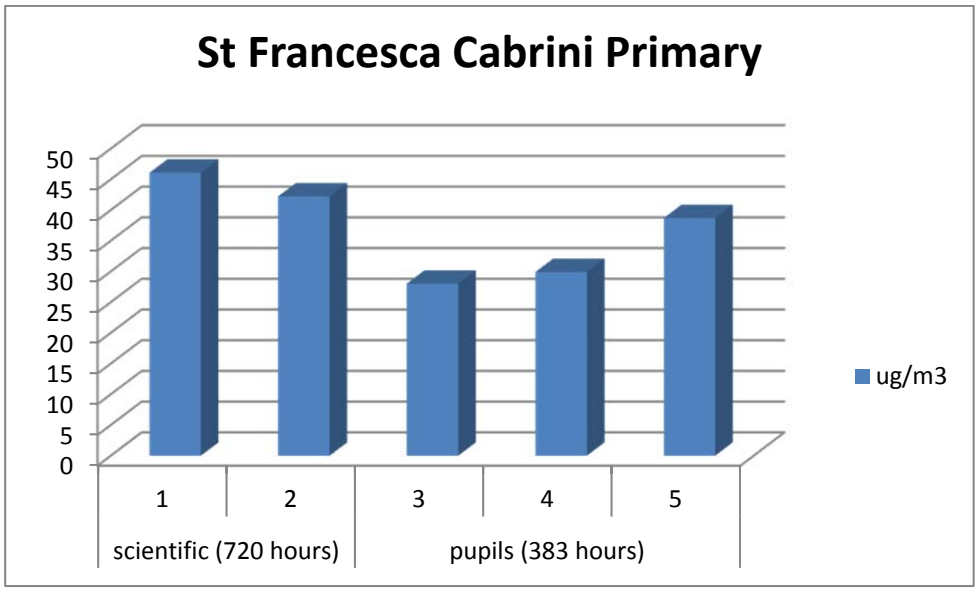


School	Surface wipes	Ghost wipes	Ozone strips	Diffusion tubes
Rotherhithe Primary	Highest PM_{10} found 200m from school in all directions. At higher level to east and lower in south	**2µg Nickel** (M1, M2) - East **2µg Lead** (M2) – East All other results <1µg	A small amount of ozone (O_3) found to south and west of school	Average of 44.7µg.m^{-3}. Had third highest measurement next to school car park, of 48.6µg.m^{-3}

St Francesca Cabrini RC Primary - Location description: Close to the junction of two A roads and on a steep incline



Diffusion tube results



School	Surface wipes	Ghost wipes	Ozone strips	Diffusion tubes
St. Francesca Cabrini RC Primary	Highest PM_{10} found to north of school at all three locations	South - **9µg Lead** (M1) / **2µg** (M2) All other results at first measure<1µg	N/A	Average of 37µg.m^{-3}. Two measurements significantly higher than the others, located on Forest Hill Road at 46.1µg.m^{-3} and 42.3µg.m^{-3} respectively

Heavy metals

The table below shows the results of the Ghost wipes. Wipes were taken on the windows of school building. Baseline wipes were taken at Bessemer Grange which is taken in the south of the borough. M1 = measurement 1

M2 = measurement 2 (one week later at exactly same spot)

All results are in $\mu g/m^3$

Non of the test results showed any breach of environmental standards for Chromium, Nickel or Vanadium. The environmental limit for lead is 0.5 $\mu g/m^3$ (averaging period of 1 year) Results exceeding the annual limit for lead are highlighted in yellow.

Lead from petroleum and transport sources have almost been eradicated, the analysing laboratory has postulated that the most likely explanation for the elevated results is residue from lead in window frame/soffit paint or it may possibly be graphite particles from pencil lead on the hands of the children taking the samples. A single elevated sample at a location would not mean that there would be a breach of the annual limit and further sampling and analysis in the vicinity of the highlighted samples would have to be undertaken to clarify the source/cause of the elevated results.

Bessemer Grange		Chromium	Lead	Nickel	Vanadium
West	baseline	<1	<1	<1	<1
South	baseline	<1	31	<1	<1
East	baseline	<1	<1	<1	<1
North	baseline	<1	<1	<1	<1
Grange		**Chromium**	**Lead**	**Nickel**	**Vanadium**
West	M1	<1	4	<1	<1
	M2	<1	3	<1	<1
South	M1	<1	<1	<1	<1
	M2	<1	3	<1	<1
East	M1	<1	<1	<1	<1
	M2	<1	<1	<1	<1
North	M1	<1	<1	<1	<1
	M2	<1	3	<1	<1
Rotherhithe		**Chromium**	**Lead**	**Nickel**	**Vanadium**
North	M1	<1	<1	<1	<1
	M2	<1	2	<1	<1
East	M1	<1	<1	2	<1
	M2	<1	<1	2	<1
South	M1	<1	<1	<1	<1
	M2	<1	<1	<1	<1
West	M1	<1	<1	<1	<1
	M2	<1	<1	<1	<1
St Francesca Cabrini		**Chromium**	**Lead**	**Nickel**	**Vanadium**
North	M1	<1	<1	<1	<1
	M2	<1	<1	<1	<1
East	M1	<1	<1	<1	<1
	M2	<1	<1	<1	<1
South	M1	<1	9	<1	<1
	M2	<1	2	<1	<1
West	M1	<1	<1	<1	<1
	M2	<1	<1	<1	<1

Ozone

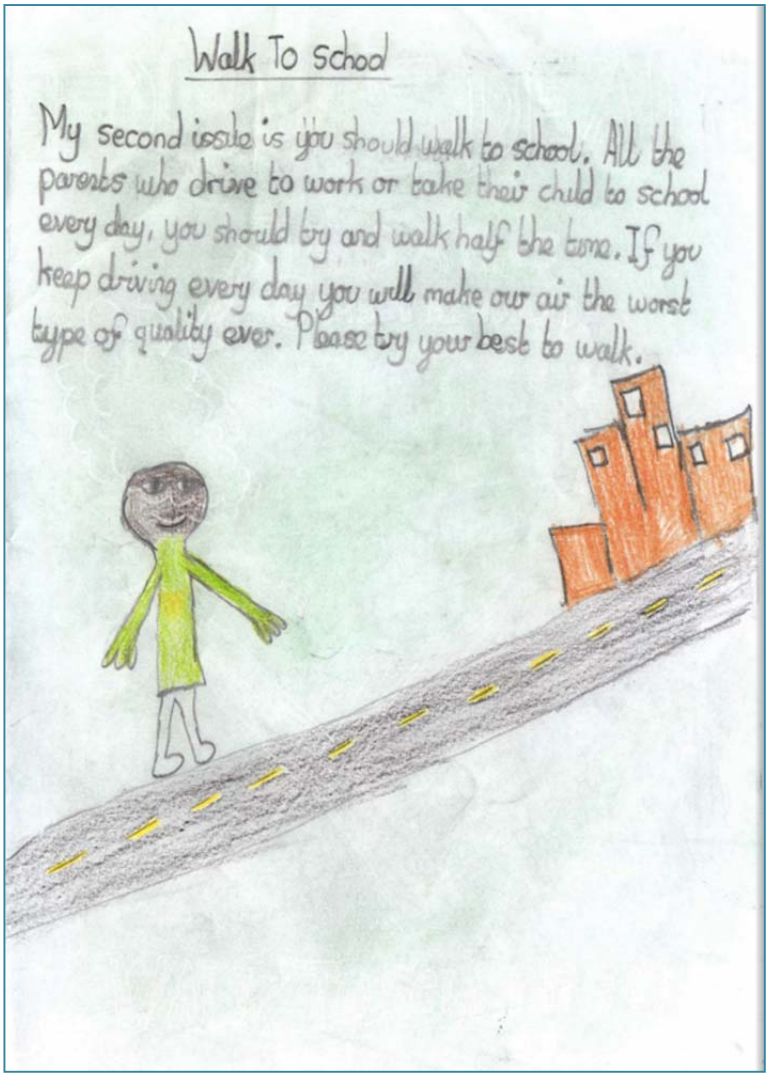
Children sampled atmospheric ozone levels using ozone strips. These were exposed in outdoor locations for 10 minutes. The exposed ozone strips were then compared with a colour chart to indicate the ozone levels at that location. It was hard to be sure that the ozone strips had actually changed colour in many cases as ozone levels in cities are generally low and unsurprisingly low levels of Ozone were detected at each school in this study. The ozone strips were not tested in a laboratory (as were other samples), so the results were not rigorous and could be subject to personal bias from each participant.

PM_{10}'s

PM_{10}s were analysed using a surface wipe. While it was not possible to measure how much PM_{10} had been collected, it was possible to compare samples to deduce which samples were the dirtiest or cleanest, and therefore, which sampling site had the greatest level of deposited particulates. Deposited particulate levels are increased by the presence of vegetation.

Discussion & conclusions

Nitrogen Dioxide was found to be indicative to be over EU limit at 5 of the 6 schools. Only results from Bessemer Grange Primary's diffusion tubes were found to be under the 40ug/m3 limit. All of Grange Primary's 5 diffusion tubes and Rotherhithe Primary's 6 tubes were found to be over the limit. At Charles Dickens 5 out of 6 diffusion tubes results exceeded limits. St Francesca Cabrini had 2 out of 5 tubes over the EU limit and 1 of 3 at Peter Hills Primary.



(Page of a leaflet design from Bessemer Grange primary)

Citizen Science benefits and limitations

Pupils engaged particularly well with the citizen science elements of the programme. The pupils programme evaluation results at the end of this report demonstrate that this was one of the top two elements of the programme that they enjoyed being involved in most.

The table below, showing scores out of five (1 is poor and 5 is excellent), is an attempt to provide a picture of which methods were best to use overall considering a variety of perspectives.*(Image: Surface wiping at Bessemer Grange Primary)*

	Ghost wipes	Surface wipes	Diffusion tubes	Ozone strips
Cost/ value for money	1	5	3	4
Value for Money	3	5	4	2
Educational value	3	4	3	1
Quality of results	4	2	5	1
Pupil engagement	4	4	5	2.5
	15	20	20	10.5

Lessons Learned

- Ozone strips were the least useful of the four methods of air quality monitoring – very little change could be observed by pupils and they did not hold their attention.
- Diffusion tubes were very useful – although there were draw backs with using these as an integral part of the learning due to the length of time that they needed to be in place before sending to the lab for analysis. The results could take approximately two weeks to be returned. Thus, meaning that results couldn't always be presented to pupils in a timely manner.
- If diffusion tube monitoring results are to be used scientifically these need to be located and serviced separately to those used for teaching purposes.
- Surface wipes were very useful but the results are largely subjective in that what one child perceives as 'dirty', another child may think is 'not that dirty'.
- Ghost wipes were expensive and not helpful in raising the awareness of the children.

Conclusions and favoured future targeting options

It is a question of weighing up scientific rigour against the immediacy of results that make something engaging for children. Given that the environmental monitoring is predominantly a tool to engage and generate interest rather than to generate scientific data, going forwards it would be better to utilise those methods that children found most engaging.

- Surface wipes were a favourite largely due to the fact that the results were available immediately, making it really easy to convey air quality messages.

- Diffusion tubes should also be used but only in cases whether schools opt to participate in an intense or condensed programme which makes it possible for results to be returned in time for the evaluation of results session.
- Ghost wipes - avoid.

Section E

Sustainability aims

The Cleaner Air 4 Schools programme presented an excellent opportunity for partnership working with an existing council sustainability scheme – the Low Carbon Schools Programme. This match-funding scheme incentivised schools to invest in heating and lighting modernisation by providing half of the capital required to install agreed improvements, along with fully supported project management. The only defining control on works undertaken is that installations have to pay for themselves in savings in less than 8 years. The schools portfolio contributes heavily towards the overall carbon footprint of council operations, therefore, energy efficiency improvements within schools are a high priority both for Children's Services and the Council's Energy Team.

At the time the programme was being devised the GLA were also offering match funding to schools with 50% towards capital improvements that would reduce gas consumption. This presented a golden opportunity to incentivise schools to become partners in the programme and combine with the Low Carbon Schools Programme and the GLA grant funds to be able to offer fully (100%) funded improvements and significant future carbon and fuel cost savings.

The table below shows the improvements that have been or will be installed at four of the six Cleaner Air 4 Schools partners.

Bessemer Grange had already made significant recent improvements to its boiler system and did not require any further works at the time of the programme Rotherhithe School was scheduled to receive automated boiler controls and improved insulation as part of this programme, however, this project has been put on hold as a full assessment of the boiler room at the school is being made with a view to a complete refit.

Carbon savings are predicted as a result of boiler replacement work at four out of the six schools. This will be significantly increased when the benefits from planned works at Bessemer Grange Primary are also considered in the calculations

	Technology Installed	Gas consumption reduced by	CO2 per annum reduction	Cost savings*
Charles Dickens	Boiler controls and improved insulation	36%	16.5 tonnes	£2,687
Peter Hills	Boiler controls and improved insulation	28%	13.3 tonnes	£2,171
St. Francesca Cabrini	Boiler controls, improved insulation, new hot water system, new nursery boiler	40%	31.5 tonnes	£5,146
Grange	Boiler controls and improved insulation	32%	14.7 tonnes	£2,402
Total			76 tonnes	£12,406

* cost savings based on prices at September 2014

Value for money against final cost of project

Initially the estimated budget for the programme at these four schools was £98,396. With the 50% to come from the GLA, this meant an outlay from the Council of just £49,198. The carbon saving were substantial and with projected financial savings of £12,406/ annum, the payback period was due to be very short, giving excellent value for money.

The GLA subsequently reduced their 50% offer to a flat amount of £25,000, a contribution of 25.4%.

Since a commitment had already been made to the partner schools involved in the programme, the Low Carbon Schools programme made a decision to fully fund the promised works from its budget. The total expenditure to date has been £85,762. Whilst the value for money is not what was initially anticipated, this still represents a good investment in improving the schools infrastructure, with cumulative paybacks still well within the 8 year limit set by the Low Carbon Schools programme.

In particular the insulation improvements have been shown to be excellent value for money, reducing gas consumption by around 7.5%, with a payback period of just over a year. So good in fact that the Council is now considering a 100% funded programme to install them at all schools where they are required.

Engagement with schools

The Low Carbon Schools programme was struggling to engage with schools, even with the 50% match funding offer. The Cleaner Air for Schools programme offered a good opportunity to engage with the 6 participating schools and install improvements that will produce significant carbon savings and financial savings for schools, releasing funds that can then be spent on other key school and educational priorities.

Lessons learned

- Representatives of the Low Carbon Schools programme have expressed that they look forward to further opportunities to work with schools through future rounds of the Cleaner Air 4 Schools programme and with the School Travel Plan Team and the Environmental Protection Team in the future.
- Any offer of external or other internal funding would have to be fully secured.

Conclusions and favoured future targeting options

- Include links to energy and fuel saving works advice alongside any future air quality awareness raising programme in any sector, but particularly Southwark schools.

Section F

Travel plan aims

The implementation of the Cleaner Air 4 Schools Programme was intended to support the boroughs school travel plan targets for reduced car use and increased number of schools with a STAR accreditation.

Mode of travel - Class by class before and after mode of travel hands up surveys were collected where possible. These were compared across the whole school and at the class level for those involved in the programme.

Baseline survey data - was collected by requesting school contacts to provide a survey-monkey link to class teachers, so they could carry out the hands up survey themselves and upload the results on line. This data was provided to the borough School Travel Plan Team and was uploaded to the boroughs on-line travel plan system in the case of schools that hadn't carried out a hands up survey for that year. Grange Primary, Bessemer Grange Primary and St Francesca Cabrini Primary fully completed their baseline hands up surveys. The other three schools did not provide fully completed survey results. Eventually almost all participating classes provided baseline hands up survey data.

Follow up mode of travel survey data – This was more difficult to access. Parose Projects visited two schools that provided appointment times to carry out the hands up surveys across the whole school (Rotherhithe Primary and Grange Primary). Charles Dickens carried the survey out independently in early February. The other three schools were less responsive and only provided survey results from the participating classes. A whole school hands up survey is a large undertaking for a school and they are usually only required to carry this out once a year to comply with school travel plan STAR accreditation requirements.

The whole school before and after mode of travel survey results for Grange Primary and Rotherhithe Primary are shown below.

	Car	Carshare	bus	rail/tube	cycle	walk	park &walk	other	Total responding
Grange Primary Sept13	27 (14%)	1 (0.5%)	26 (13%)	1 (0.5%)	5 (3%)	135 (69%)	0	0	194
Grange Primary Jan14	33 (13%)	0	38 (15%)	1 (0.4%)	3 (1.2%)	170 (68%)	5 (2%)	0	250
Rotherhithe Primary 2013*	69 (16%)	1 (0.5%)	56 (13%)	6 (1%)	5 (1%)	296 (68%)	0	2 (1%)	437
Rotherhithe Primary Jan14	39 (14%)	2 (0.7%)	24 (9%)	8 (3%)	4 (0.3%)	185 (68%)	0	0	273

*hands up surveys from summer 2013

Both show a small decrease in car use. Walking figures remain the same.

Modal shift of the participating classes are shown in the table below.

% Modal shift	Class	Car	car share	bus	dedicated bus	rail / tube	Cycle	walk	park & stride	other
Charles Dickens	Barnaby	+10%	-4%	-4%	0	0	-4%	4%	-4%	0
Grange	Neptune	0	0	-10%	0	0	0	+3%	+6%	0
Grange	Pluto	-1%	0	-6%	0	0	0	+7%	0	0
Bessemer Grange	Year 5	-4%	+3%	+3%	0	-3	3	-6%	3%	0
Rotherhithe	Cutty Sark	+4%	0	0	0	0	0	+2%	-3%	0
Peter Hills	Intrepid	No follow up survey results provided								
St Francesca Cabrini	Class 13	No follow up survey results provided								

Rotherhithe Primary and Charles Dickens Primary (high-lighted in yellow) developed campaigns around energy saving. A shift in mode of transport was not expected at these schools.

No significant shift was demonstrated. Charles Dickens increase of 10% in car use was a result of an increase of 2 extra pupils saying they came to school by car.

Lessons learned

The reasons for no significant shift in travel behaviour are likely to include the following:

- The before programme/baseline surveys were carried out in mild weather during September and October 2013, and follow up surveys were carried out in January and February 2014. Despite the question being 'how do you usually travel to school' pupils often respond with the mode they used that particular day. Also a small number of families who have private cars may choose to use them in winter but may not when weather is more clement.
- Nature of the campaign work - Charles Dickens and Rotherhithe created campaigns about saving energy, and two of the other four schools were targeting idling – not necessarily changing mode of travel.
- Working with schools to create travel behaviour change takes a longer period of time than one term due to habitual changed transport choices. A variety of campaigns and initiatives aimed at parents would be needed to remove the barriers to sustainable travel and develop a whole school sustainable travel ethos.
- The Cleaner Air 4 schools programme is about raising awareness of the problem of poor air quality and what families can do to reduce their impact. Social marketing and behaviour change research indicates that raised awareness does not directly correlate to behaviour change.

Conclusions and potential future actions

This programme has established a strong foundation for mode shift by establishing a year group of pupils who can be ambassadors for air quality awareness and sustainable travel. Four schools developed a strong base for any on-going campaigns. Appendix 5 contains key recommendations for each school with regard to key things that can be done to achieve lasting change. Several of the schools, including St Francesca Cabrini Primary re-ran their campaign after Christmas.

Suggestions to embed approach

- The Cleaner Air 4 Schools programme could operate alongside the School Travel Plan programme. With the School Travel Plan Team following up and building on campaigns and activities undertaken by the schools. Continued evaluation of transport mode shift at these schools is scheduled to take place.

Calculation of total carbon saving

As modal shift was not significant there were no measurable carbon savings.

Section G

Cleaner Air 4 Schools Event

The celebration and prize giving event was held on January 16th 2014 at City Hall's London's Living Room. It was decided this venue would best support the aims of the event in terms of drawing as many of Southwark schools as possible to learn more about the programme and provide a special reward for pupils from participating schools. It has good public transport links from across the borough to London Bridge.

Event aims

- Reward participating schools and celebrate their achievements.
- Encourage participating schools to re-run the programme at their school.
- Encourage other schools to participate in future projects.
- Generate media interest and borough wide awareness.

Who was invited?

- All of Southwark Primary schools were invited to send a representative.
- Pupils and staff from the six participating schools.
- Three of the participating schools were invited to give a presentation on their work.
- Other air quality, environmental and transport practitioners.
- Southwark dignitaries, including the Mayor

Who attended?

- 5 of the 6 participating schools attended with pupils.
- A further 7 schools sent representatives.
- In total 45 adults and 45 children attended and heard presentations from pupils from Rotherhithe Primary, Bessemer Grange Primary and St Francesca Cabrini Primary
- Helen Young (ex-BBC weather presenter) and Ann Finlayson (Chair of SEEd (Sustainability and Environmental Education)

Effectiveness of the event as a celebration

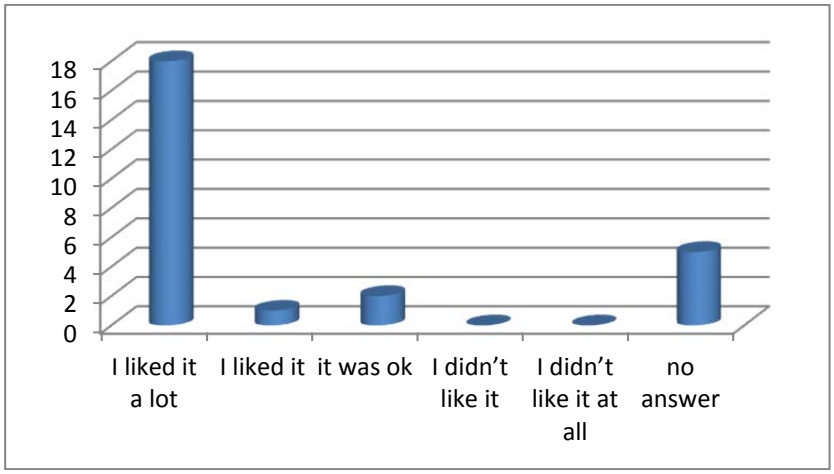
- 100% of adults stated that they found the event overall either good or excellent.
- 100% of adult respondents stated that they found speakers Ann Finlayson (Chair of SEEd) and Helen Young either very good or excellent. All respondents stated that the schools presentations were either 'good', 'very good' or 'excellent'.
- 100% of respondents stated that the venue was either 'very good' or 'excellent'.

"Today was a really good way to celebrate all our work. It was really interesting to see what the other schools have done."

"Very inspiring and informative!"

Pupils CA4S event evaluation

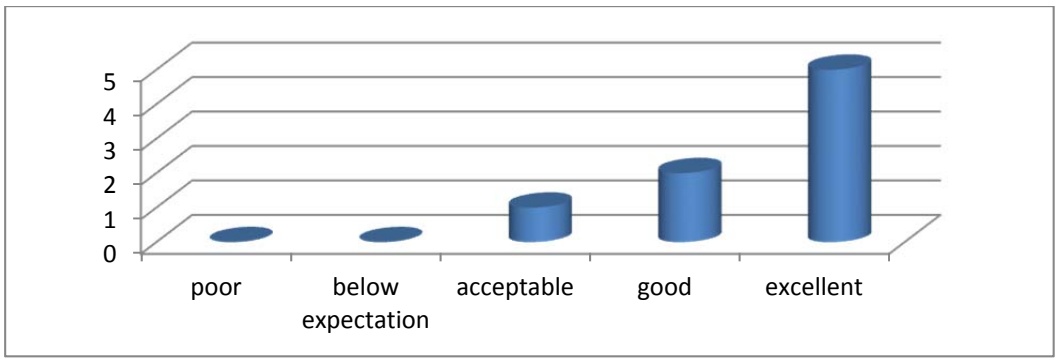
Question: ***Did you like today's event?***



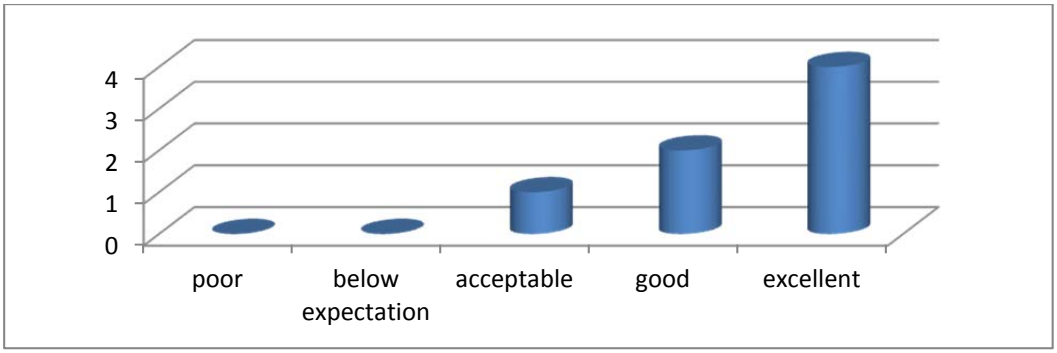
Effectiveness as an encouragement to participate in future programmes

Three of the 7 new schools attending expressed keen interest in participating in any future Cleaner Air 4 Schools projects on the day and all attending said they wanted someone to contact them with more information following the event.

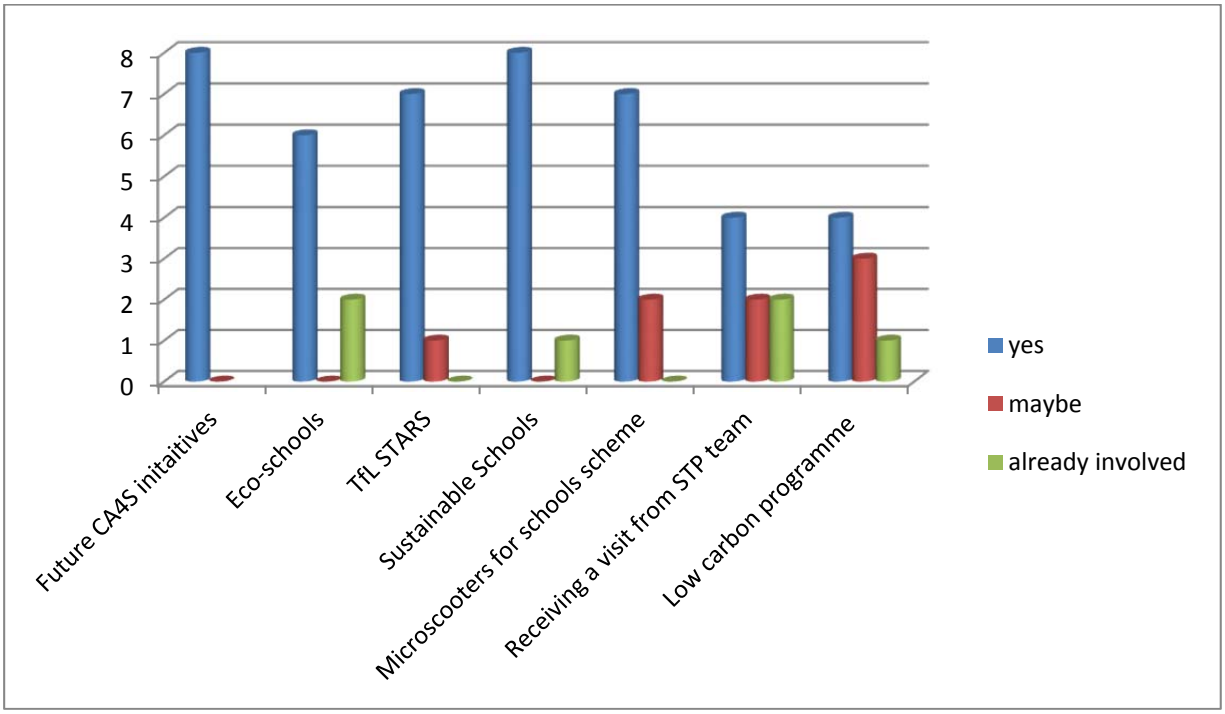
Question: ***How would you rate the usefulness of the event in helping you see how the programme can benefit your school/ schools?***



Question: ***How would you rate the usefulness of the event in relation to helping you decide whether you would like your school to be involved in cleaner air 4 schools programme in the future?***



Question: ***How interested are you in following up on receiving info about the following when you get back to school?***



The event was very successful in promoting the value of the Cleaner Air 4 Schools project to schools and in encouraging schools to take part in future rounds of the project as funding is secured.

Media coverage of celebration event

A press release regarding the event and images were sent to local media outlets including the London SE1 website, Southwark News, and the South London Press. The London SE1 website used the press release for an e-article. Unfortunately the press release was not sent to all the media outlets requested by the project manager with the speciality air quality and environmental press and the Guardian not receiving the press release. Media coverage was not as successful as hoped.

Lessons learned

- Where possible, avoid trying to organise events in the week before holiday periods.
- The prestigious venue was appreciated by all attendees.

- Holding the evaluation event close to the end of the programme resulted in good participation by the schools.
- Pupils presentations worked very well and Ann Finlayson's interactive presentation was very well received

Conclusions and favoured future options

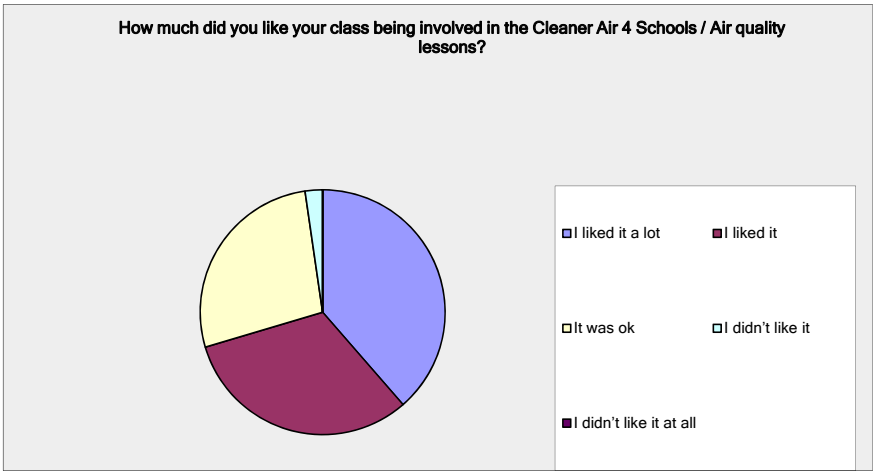
- The event worked well due to the number of participating schools.
- If possible include a presentation on project evaluation.
- The presence of a relevant high-profile person improves attendance and audience appreciation.
- The provision of refreshments is essential for children.

Section H

Evaluation of in-school programme

An online survey link was circulated to teachers and head teachers who were involved in the programme to find out their feelings on the project, assess the benefits for them and what they felt could be improved in terms of programme delivery at their school. A limited number of pupils were also invited to complete a programme evaluation survey.

Pupils programme evaluation survey

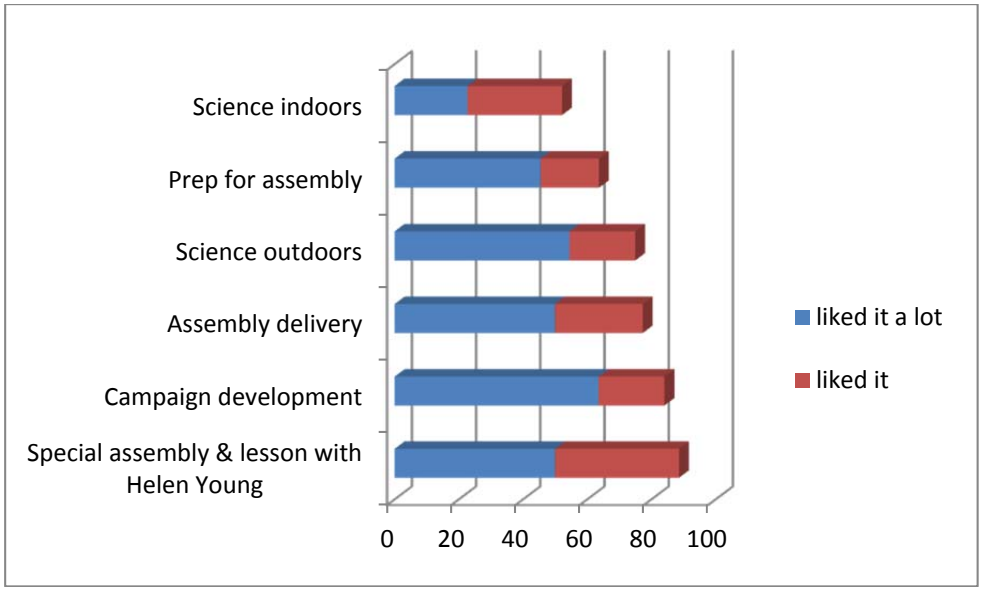


23 pupils from Grange Primary, 16 from Bessemer Grange and 5 from Rotherhithe completed the programme evaluation. The following graphs show the results.
70.4% of pupils responding either 'liked' their class being involved in the programme or 'liked it a lot'.

The table and graph below show pupil responses to questions about how much they liked the various lessons and assemblies they received and took part.

How much did you like the…?	I liked it a lot	I liked it	It was ok	I didn't like it	I didn't like it at all
…first special assembly and lesson with Helen Young when you did badge making?	50.0%	38.6%	9.1%	2.3%	0
…scientific lessons outdoors when you were in the school grounds collecting samples?	54.5%	20.5%	22.7%	2.3%	0
…science lessons indoors when you looked at the results?	22.7%	29.5%	40.9%	4.5%	2.3%
…lessons when you worked on **developing and running your own campaign** to help air quality?	63.6%	20.5%	9.1%	4.5%	2.3%
…lesson when you **prepared for your assembly**?	45.5%	18.2%	22.7%	13.6%	0
…presenting your **assembly**?	50.0%	27.3%	20.5%	2.3%	0

87% of pupils either 'liked a lot' or 'liked' the assembly and first lesson with Helen Young. 84% said they either 'liked' or 'liked a lot' the campaign development and implementation sessions, with 64% this aspect had the most pupils saying they 'liked it a lot'.



Question: ***What was your favourite bit and why?***

Here's a selection of pupils answers to this question -

- I loved making stuff it is very fun.
- I liked the outdoor but I don't like the indoor.
- My favourite bit was when we had to go tell others to switch off their engines because stopping air pollution.
- I like when we were outdoors and put this to make the world better.
- Making badges, because it was fun.
- Giving badges and letters and giving letters to parents.
- My favourite bit was when we were doing our campaign because we all had different ideas for making our school stop car idling at the school streets.
- Badge making because I could use my imagination.
- The assemblies were the best because we got to show the school the pollution.
- I think the singing bit is good as I think it's a unique way of sending a message.

Pupils were asked: ***Do you think, feel or do anything differently since your class took part in the Cleaner Air 4 Schools programme*?**

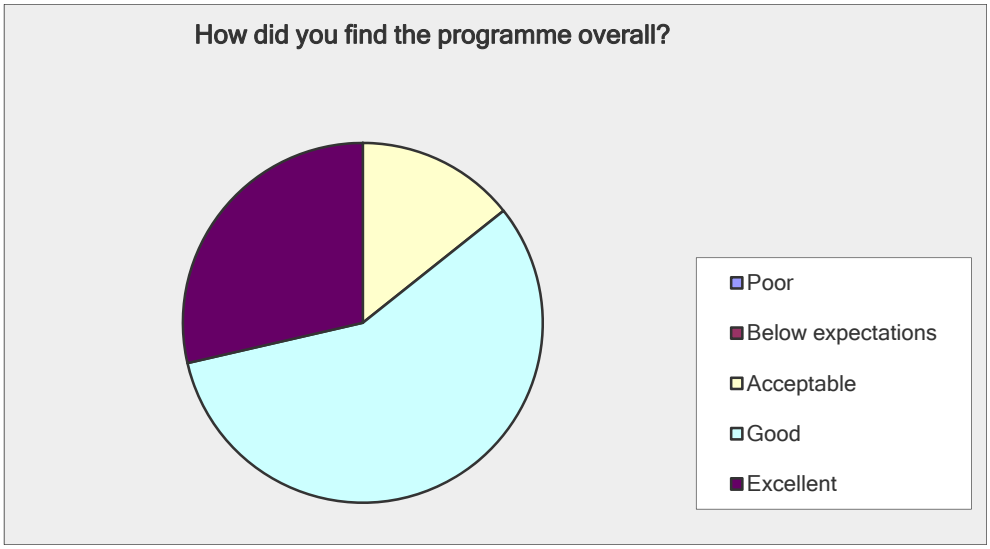
Answers included:

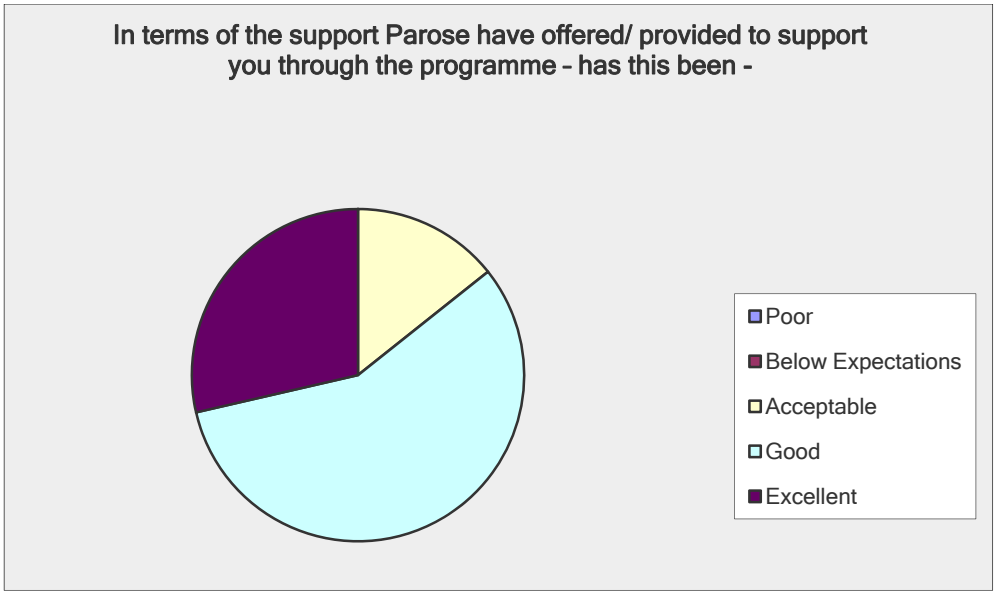
- No, I was already living a sustainable life. Yes I feel different.
- I stopped my uncle smoking inside. Yes I feel very much different.
- I ask my parents not to drive as much. It has changed me a little bit.
- I ask my godmother and people not to drive. I feel more like I have to look after my planet.
- We changed from parking outside the school. I feel different from taking part because I stopped idling.

- I change my parents from idling. Yes I feel different.
- I am telling my family not to idle any more.
- Yes I have changed what I do. I don't feel any different.
- I can walk more often. Yes I did feel different.
- I used to drive to school but now I drive and walk. I feel that I need to look after our planet a lot more.
- Yes I scooter to school. I feel a lot different after learning about CA4S because I learnt that air pollution can kill you.
- Yes because in leaned a lot about air pollution.
- Yes. I am going to use more public transport instead of cars.
- I tell my dad not to leave his engine on.
- I think more about walking.
- Now I know that I have to take care of the air.
- Yes, now I no more stuff. Therefore I am smarter now.

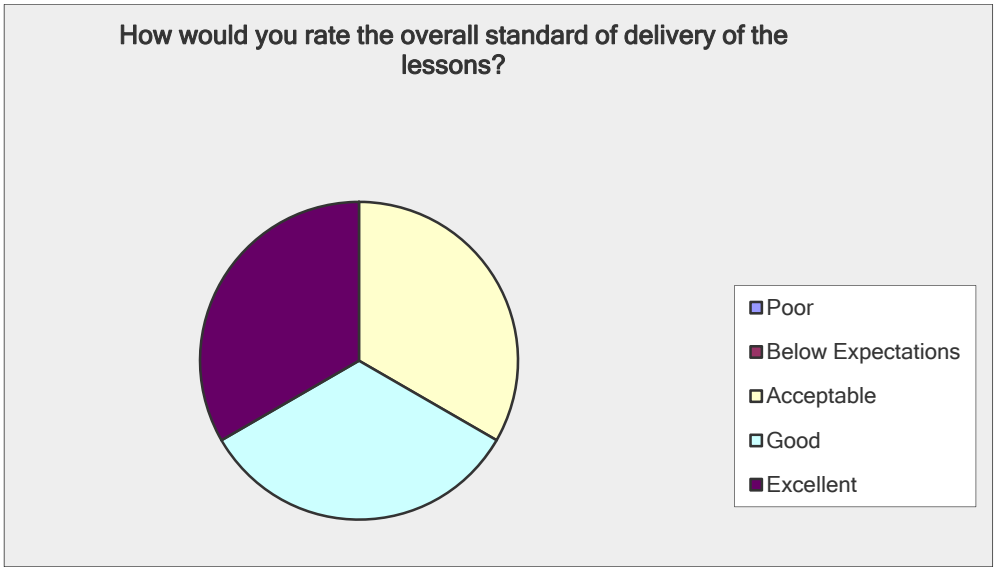
School staff programme evaluation survey

Staff were asked how they found the programme overall. 86% of respondents said the programme was either good or excellent.





86% of staff responded that the support offered by Parose in delivery of the project was either good or excellent.

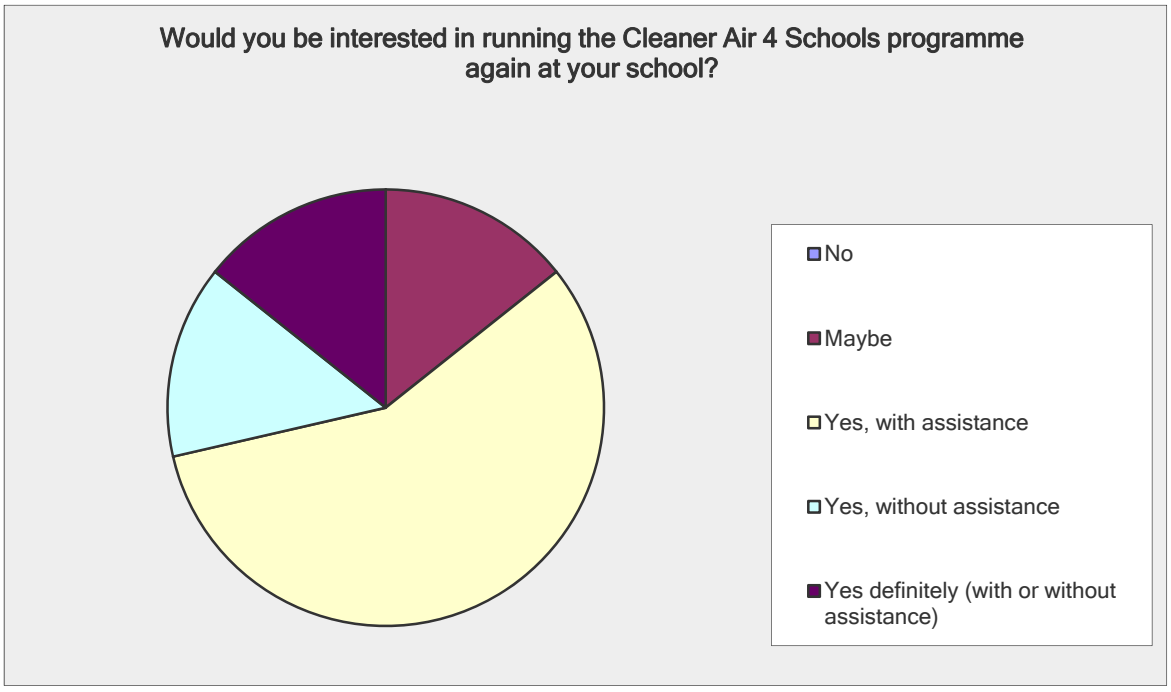


67% of teaching staff said that the overall standard of lesson delivery was either good or excellent. With 0% finding the standard of lesson delivery poor or below expectation.

	Poor	Below expectations	Acceptable	Good	Excellent
How would you rate the usefulness of the programme in relation to supporting delivery of key stage 2 science curriculum?	0	33.3%	0	33.3%	33.3%
How would you rate the usefulness of the programme in relation to delivery of key stage 2 PSHE curriculum?	0	0	33.3%	33.3%	33.3%
How would you rate the citizen science / science teaching lessons?	0	0	33.3%	33.3%	33.3%
How would you rate the campaign development lessons?	0	33.3%	0	33.3%	33.3%
How would you rate launch assembly?	0	0	14%	43%	43%

Question: ***Would you be interested in running the Cleaner Air 4 Schools programme again at your school?***

86% of staff responding to this question answered either *yes* or *yes definitely*.



Section I

Financial management of project

The project was delivered on time and within arranged budgets.

Section J

Headline lessons learned and conclusions

Pupil knowledge and awareness

Lessons learned

- Intensive sessions with fewer hours teaching appear to be just as effective at increasing knowledge and awareness as one lesson a week for a whole term.
- Ensure baseline surveys are carried out well before the onset of the programme of assemblies and lessons.
- The pupil led element of the campaign can impact to some degree upon what pupils learn and remember. For example where a school focuses upon 'saving electricity' for their campaign then they may pick up fewer messages about travel and the impact of transport of air quality.

.**Conclusions and favoured future targeting options**

- Develop a network of air quality champions in the school.
- Ensure communications to the wider community and participating pupils peers are pupil led.
- Where possible include the use of video, blog, website or film work.
- Encourage schools to choose the condensed delivery option.
- Focus pupils on campaigns about travel and transport.

Staff knowledge and awareness

Lessons learned

- Do not end programmes or try to carry out evaluation work close to holiday periods.
- Use paper based survey techniques in schools.

Conclusions and favoured future targeting options

- Pupils could be involved in undertaking survey work with school staff.

Parental knowledge and awareness

Lessons learned

- The quality of school communication with parents can be variable. Future projects need to target parents independently of the school for information gathering and awareness raising.
- Prepare information for the schools website and newsletters and work directly with the staff who put together school publications.
- Consider the use of school gate market research techniques with parents.
- December is an ineffectual time of year to be communicating with parents and pupils about anything other than festive activities.
- Ensure any prizes are appropriate to the desires of the age group you are working with.

Conclusions and favoured future targeting options

- In future parent surveys data could be collected by independent market research officers in the playground or at the school gate. Or children could be asked to survey their parents as a homework activity

- Another option could be to give fliers out at the school gate with details of the prize draw offer.
- Online surveys disenfranchise households not on-line so need to use various options for response.

Evaluation of value of elements of the programme

Lessons learned

- It appears that pupils participating in more intensive method of delivery had greater increases in knowledge and awareness.
- Delivery of citizen science lessons fits better with a more intense style of delivery as the gaps between lessons can be arranged to allow for results to be returned from laboratories.

(Image: St. Francesca Cabrini Primary – Ghost wiping)

Conclusions and favoured future targeting options

- Utilise the condensed/intensive method of delivery where schools are willing and able to accommodate this.

Citizen science

Lessons Learned

- Ozone strips were the least useful of the four methods of air quality monitoring – very little change could be observed by pupils and they did not hold their attention.
- Diffusion tubes were very useful – although there were draw backs with using these as an integral part of the learning due to the length of time that they needed to be in place before sending to the lab for analysis. The results could take approximately two weeks to be returned. Thus, meaning that results couldn't always be presented to pupils in a timely manner.
- If diffusion tube monitoring results are to be used scientifically these need to be done separately to those used for teaching purposes.
- Surface wipes were very useful but these results are largely subjective in that what one child perceives as 'dirty', another child may assess as 'not that dirty'.
- Ghost wipes were expensive and not helpful to the awareness raising of children.

Conclusions and favoured future targeting options

- Surface wipes were a favourite largely due to the fact that the results were available immediately, making it really easy to convey air quality messages.
- Diffusion tubes should also be used but only in cases whether schools opt to participate in an intense / condensed programme which makes it possible for results to be returned in time for the evaluation of results session.
- Ghost wipes and Ozone strips were not useful with Key stage 2 pupils.

Travel plan aims

Lessons learned

The reasons for no significant shift in travel behaviour are likely to include the following:

- The before programme/baseline surveys were carried out in mild weather during September and October 2013, and follow up surveys were carried out in January and February 2014. Despite the question being 'how do you usually travel to school' pupils often respond with the mode they used that particular day. Thus a small number of families who have cars may choose to use them in winter but not when weather is more clement.
- Nature of the campaign work - Charles Dickens and Rotherhithe created campaigns about saving energy and two of the other four schools were targeting idling, not changing mode of travel.
- Working with schools to create travel behaviour change takes a longer period of time than one term due to the habitual behaviour of parental car use. A variety of campaigns and initiatives aimed at parents would be needed to remove the barriers to sustainable travel and develop a whole school sustainable travel ethos.
- The Cleaner Air 4 schools programme is about raising awareness of the problem of poor air quality and what families can do to reduce their impact. Social marketing and behaviour change research indicates that raised awareness does not directly correlate to behaviour change.

Conclusions and potential future actions

This programme has established a strong foundation for mode shift by establishing a year group of pupils who can be ambassadors for air quality awareness and sustainable travel. Four schools developed a strong base for any ongoing campaigns. Appendix 5 contains key recommendations for each school with regard to key things that can be done to achieve lasting change. Several of the schools, including St Francesca Cabrini Primary re-ran their campaign after Christmas.

Image: Rotherhithe Primary – citizen science activities

Suggestions to embed approach

- The Cleaner Air 4 Schools programme could operate alongside the School Travel Plan programme. With the School Travel Plan Team following up and building on campaigns and activities undertaken by the schools. Continued evaluation of mode shift at these schools via the STARS team hands up data will take place.

Cleaner Air 4 Schools Celebration event

Lessons learned

- Avoid trying to organise events in the run up to holiday periods.
- The prestigious venue was appreciated by all attendees.
- Holding the evaluation event close to the end of the programme resulted in good participation by the schools.
- Pupils presentations worked very well and Ann Finlayson's interactive presentation was very well received

Conclusions and favoured future options

- The event worked well due to the high number of participating schools.
- Include a presentation on project evaluation.
- The presence of a relevant high profile person improves attendance and audience appreciation.
- The provision of refreshments is essential for children.

Support to build and embed into other existing work streams

- As referenced earlier this programme has set a solid foundation for future modal shift at these schools, and awareness of air quality issues and protection strategies has been raised throughout the school community from Head teacher through to service and teaching staff, as well as pupils and parents.
- Outline of recommended further activities and actions which could be taken to embed the learning within the whole school community and drive forward mode shift are included in appendix 5.
- The resources developed by Parose Projects based on the original LSx toolkit has been made available to Southwark Council and can be provided to participating or interested schools so that they can continue the work independently if they choose.

(Image: Rotherhithe primary pupil led assembly)

Communications with the wider school community

The next round of the work on the programme could include more social media– including twitter and Facebook. The development of a website or webpage would be ideal so that schools can link to this, upload their videos etc. and potentially link between schools and the different ideas, approaches and work pupils are doing. If this is not achievable then a page on the Southwark website with information and helpful links would be appreciated.

Summary conclusion

This project has taken a strong step towards raising air quality awareness within the participating school communities and has formed a strong basis for behaviour change going forwards. We have thoroughly trialled the Cleaner Air for Schools toolkit and can make future projects more cost and awareness-raising effective.

The results of the pupils awareness surveys demonstrate a good increase in knowledge and understanding of the pupils participating in the lessons and as well as in non-participating classes at most schools.

Many lessons have been learnt and these will make a positive contribution to similar projects taking place in the future.

Southwark
Clean Air 4 Schools programme

Final report appendices

January 2014

Section K

APPENDICES

Appendix 1 – Schools action plans

Bessemer Grange Primary School Air Quality 4 Schools Action Plan

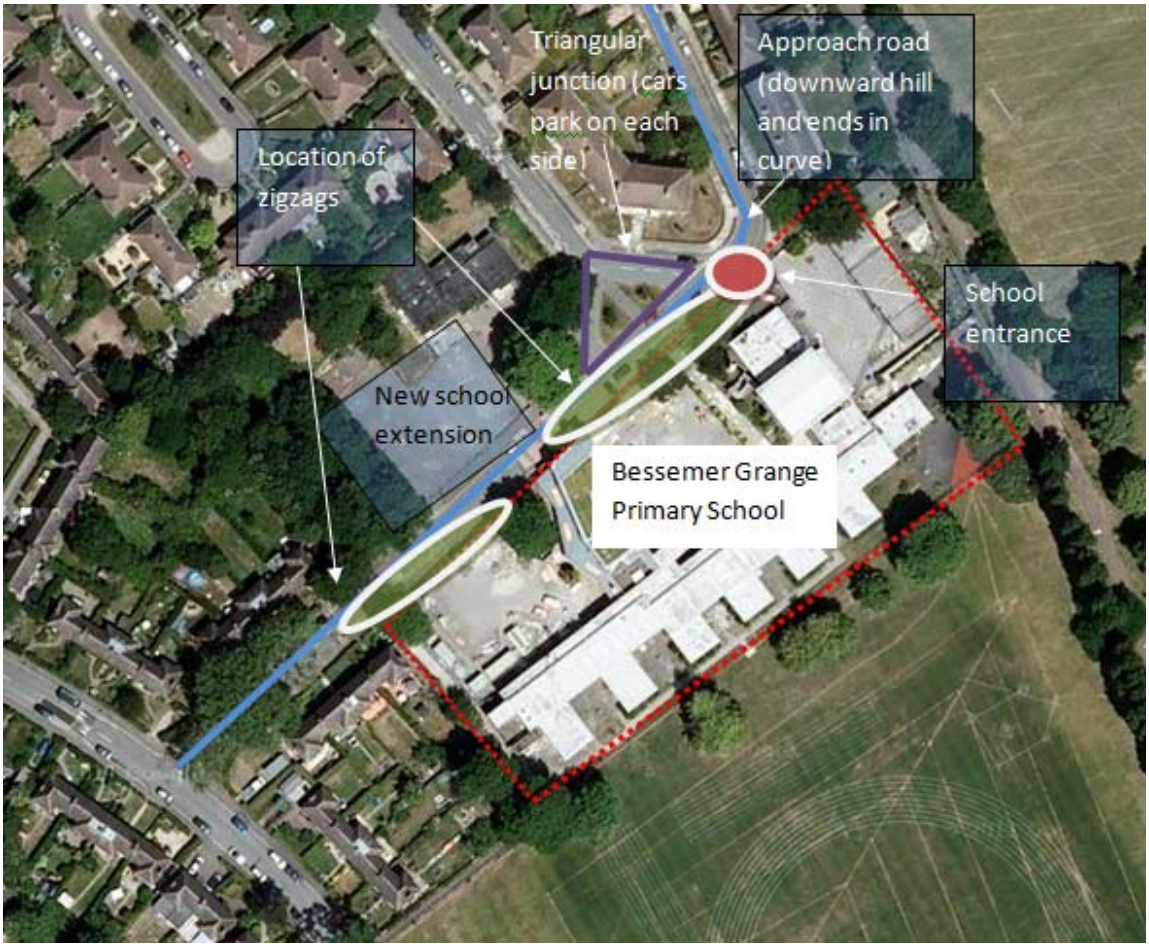
Address: **Dylways, London, SE5 8HP**
Tel: **0207 2742520**

Background
Bessemer Grange Primary school is located in a residential part of LB Southwark, between Herne Hill and East Dulwich, and is located close to Ruskin Park.
The school have not previously participated in any air quality work, including green infrastructure or awareness raising beyond curriculum work, or work as part of eco-schools or their school travel plan.
The school is expanding with new building taking place across the road from the current school site . It is important that the increase in the number of potential school journeys is mitigated to stop any future air quality issues.

Fresh photographic permission is not needed as the school has already covered this with existing permissions

The school agreed traffic and idling counts, hands up surveys and that any relevant campaigns to be run at the school.

Existing School activities
The school currently have an up to date school travel plan and have had the following initiatives or activities linked to school travel; Walk to School Week, scooter and bike racks.
The school have achieved bronze level accreditation. The eco-team and school council both need to be re-established. Previous activities by the eco-team included recycling, switching off lights and monitoring electricity use.



A map showing the location of Bessemer Grange primary school, with issues around traffic, linking to air quality.

Issues

The school has a number of issues related to the school journey and air quality. These issues are shown below with potential solutions. These solutions will be incorporated within activities carried out with children at Bessemer Grange.

Issue	Potential solution
The school's main entrance is located close to a bend in the road, at the bottom of a hill so there can be issues with lines of sight and speeding traffic	Ensure that school signs are in place or other infrastructure (even road painting) can advise of school ahead – this requires liaising with Highways
The school is located opposite a triangular junction, which is parked around, by local residents, as well as parents dropping children off.	Liaise with council to see if any infrastructure changes can be made, once STP is up to date For school community highlight dangers through campaign e.g. considerate parking, park elsewhere etc.
Parents are dropping off on the zigzags outside of the school, as well as parking on double yellow lines.	Run campaign that includes zigzag and park and walk strands to encourage parking elsewhere. Include prompts and reminders to enforce good parking behaviour – link to improved local air quality
It is chaos outside of the school at pick up and drop off time, with lots of people driving to school and trying to get as near to the school entrance as possible.	Run campaign that includes encouraging parking and walking. Include prompts and reminders to enforce good parking behaviour and walking instead – link this to improved air quality
Parents are reversing in front of the school where children could be crossing	Run campaign that highlights safe driving behaviour. Include prompts and reminders
Parents are dropping children off in the road outside of the school	Run campaign to include highlighting the dangers of dropping off children in the road. Include prompts and reminders to enforce good parking behaviour and walking instead – link to improved air quality
The parking by parents is reducing the available road width for drivers and cyclists, bringing congestion	Run campaign that highlights good parking behaviour and parking away and walking to school. Include prompts and reminders to enforce good behaviour. Link to improved health and local air quality
There are instances of asthma and obesity amongst children at the school	Run campaign to include promotion of health issues linked to inactive methods of school travel include the short and long-term impact of driving on air quality. Promotion of protection strategies and links to air quality

A photo showing cars parking and dropping off outside Bessemer Grange Primary School

Communication Methods

The school communicate through a number of means. Parents receive a newsletter once a fortnight, with termly parents' evenings and updates available through the school's website. Governors meet once a term. Staff attend regular staff meetings, as well as attending school assemblies. Pupils attend assemblies regularly and receive information in class. This project will use these communication channels, as well as others highlighted by pupils and staff, to communicate with the different groups within the wider school community and with local residents.

Structure of programme for your school

The school has advised that they would like delivery to take place through bubble days, on 11th, 12th and 13th of November 2013. Both Year 6 classes will be taking part, as only 40 children are in that year group. An additional class will be in the last week in November.

Additional work

Parose Projects will meet with the Site Manager and Bursar in early September to discuss air quality issues and see if there are ways the school can improve air quality issues onsite. Any findings will be incorporated within work with participating children and eco-team.

Air Quality Activity plan

Activity	Run by	Activity Outcomes	Date w/b
Assembly – to highlight what air quality is, how it affects the world and our weather and how to protect yourself	Helen Young	• Whole school to understand what air quality is and how to protect themselves and others. • Raise awareness of global effects of air quality and pollution • Raise awareness of how traffic can impact on air quality levels on child's school journey	12/11/13 0.5 hours
Introductory lesson – discuss and raise awareness of air quality local impact, and health implications, what the school are doing already about air quality – building on assembly	Helen Young/ David Graham	• Participating children to understand the local impact of air quality, including health. • Participating children to understand what individuals can do to help improve air quality. • Participating children to find out what the school is currently doing to improve air quality both on and off site.	12/11/13 1hours
Data gathering – use of one of a number of activities to measure air quality in the local area. Suggested activities: **traffic count, diffusion tubes, surface wipes and hands-up survey**	David Graham	• Participating children to understand why activities for data gathering will help to analyse local air quality levels • Participating children to understand how to look for and collect data • *PP to conduct traffic survey for baseline and meet Bursar and site manager to discuss onsite AQ*	12/11/13 1.5 hours
Data analysis – analyse data gathered and show what it means	David Graham	• Participating children to understand how to analyse data collected, mathematically and scientifically – and how this applies to local air quality	12/10/13 1.5 hours
Action planning – consider findings from analysis and discuss local issues around traffic and what the school can do on-site to improve. Create an action plan. This action planning will include elements linked to **health, parking behaviour and safety and launching a Park & Stride campaign. Children encouraged to write to LA**	David Graham	• Participating children to decide how to tackle issues around traffic, in-school air quality efforts and issues highlighted by data analysis to create actions to support air quality improvements by the school and school community • Participating children to design a campaign targeting school community, and raising awareness of how to improve local air quality – invite eco-team to comment • Participating children to consider and understand how to involve and engage the whole school community and include ideas within action plan	13/11/13 1.5 hours
Action and campaign launch – create campaign and action plan that seeks to raise awareness and support positive behaviours of school community that support and encourage good air quality.	David Graham	• Participating children to finalise campaign and action plan and understand what they have to do to aid success • Action plan to be presented to headteacher for endorsement • Campaign to be launched at next assembly, with supporting promotional work and use of appropriate communication channels to engage wider school community	13/11/13 1.5 hours
Evaluation – look at the campaign and see what has worked and hasn't worked, make changes and sustain campaign work beyond this term	David Graham	• Participating children to understand and analyse the campaign and advise where improvements could be made • Handover of campaign to eco-team	w/b 25/11/13 1.5 hours
Final Assembly – class run assembly highlighting what was found out, reiterating what air quality is and sustaining work beyond Xmas 2013	David Graham/ Helen Young	• Participating children to be able to summarise what they found out and educate other children in school of all ages • Participating children to be able to promote air quality issues to others confidently • Participating children to understand that good air quality requires sustained behaviour change	w/b 25/11/13 1 hours

Charles Dickens Primary School Air Quality 4 Schools Action Plan

Address: **Toulmin Street, Southwark, London. SE1 1AF**
Tel: **0207 4071769**

Background

Charles Dickens Primary school is located in the north-west of the London Borough of Southwark. The school is located on a narrow residential street close to Marshalsea Road and Borough underground statio and is, surrounded by social housing. The school have not previously participated in any air quality work, but do have some solar panels as part of green infrastructure and some awareness raising via the eco-team (as part of eco-schools) and curriculum work. The school have an action plan which covers eco-schools and environmental activity within the school, which this project will use as part of planned work. The school also has an active school travel plan and will shortly be expanding with new buildings being placed at the rear of the school. The school is located within the London Congestion Zone and is surrounded by controlled parking. The vast majority of children travelling from surrounding estates and streetsdo not arrive by car. A traffic audit was undertaken in July 2013, and only 12-15 cars were seen to park near school, including on the zigzags, or stop off in the street to drop children off. Any parking on both sides of Toulmin Street does affect the flow of traffic as it is a narrow street. Single yellow lines are in place on both sides of Toulmin Street, as is restricted permit parking. The school does have a number of children with asthma, but no major problems with obesity. The school are happy for traffic counts, idling counts and hands up surveys to be conducted as part of this project work.

A map showing Charles Dickens Primary School (red dotted line), main entrance (red circle) and local area close to Toulmin Street

The school has advised that they will need to check whether fresh photographic permission slips will be needed to ensure that the children's photos can be used for publicity or evaluation purposes.

Existing School activities

The school currently have an up to date school travel plan and have had the following initiatives or activities linked to school travel; cycle and scooter pods, cycle training, pedestrian training, in-house traffic awareness and participation in Bike Week.

The school have an active eco-team and have achieved green flag level accreditation in the past. Current activities are run and overseen by the eco-team including; recycling in each classroom, a recycling and energy use code, promotions within the classrooms, an energy meter, solar power and a garden where plants are grown.

Issues

The school has a number of issues related to the school journey and air quality.

Issue	**Potential Solution**
The school's main entrance is located on Toulmin Street, which is a narrow residential street	Ensure that local council are aware of issues and promote parking elsewhere to parents who do drive through school campaign
Some parents are parking on the school zigzag keep clear markings, even where there are other spaces where they could park	Run campaign that includes zigzag and park and walk strands to encourage parking elsewhere. Include prompts and reminders to enforce good parking behaviour – link to improved local air quality
There is a lack of signage on surrounding roads to let people know that the school is there	Liaise with council to ask for signs to be installed. Children to write a joint letter to the council asking for this
Even though there is only a small amount of parking by parents this does lead to congestion outside of the school.	Run campaign that highlights good parking behaviour. Include prompts and reminders. Encourage parking and walking from other streets nearby
There are instances of idling engines in parked cars	Run campaign to include raising awareness around leaving engines idling – link to air quality and health. Use of positive language to engage parents

A photo showing Toulmin Street (looking north), with the school entrance on the right (green gate).

Communication Methods

The school communicate through a number of means. Parents receive fortnightly newsletters, and are invited to termly parents' evenings. In addition, there is an active PTA as well as Parent Forums and class assemblies for their child(ren)'s year group. Letters and texts are sent to parents. Teachers communicate and are advised of school business through daily briefings, a staff noticeboard that is updated daily and via email.

Pupils attend a weekly whole-school assembly, with class-run assemblies happening on Tuesdays and Thursdays. The school council, which also acts as the eco-team, meet two or three times per-half term, with an extra meeting for school council each term. Governors meet termly.

Structure of programme for your school

The school has advised that they will go for a bi-weekly session with Year 5 and a split Y5 and Y6 class. One class will be worked with by the facilitator, with the other two classes following the same activities at the same time being taught by their class teachers. The school have advised that they are happy for surveys and counts to take place linking to this project; hands up surveys, traffic counts and idling counts.

Air Quality Action plan

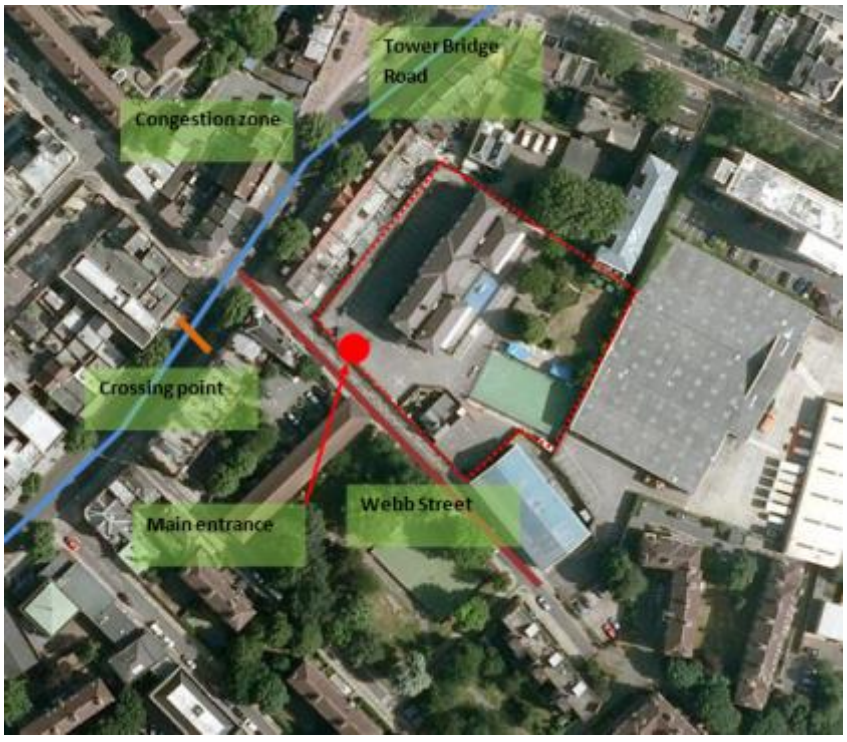
Activity	Run by	Activity Outcomes	Date w/b
Assembly – to highlight what air quality is, how it affects the world and our weather and how to protect yourself	Helen Young	• Whole school to understand what air quality is and how to protect themselves and others. • Raise awareness of global effects of air quality and pollution • Raise awareness of how traffic can impact on air quality levels on child's school journey	09/09/13 1.5 hours
Introductory lesson – discuss and raise awareness of air quality local impact, and health implications, what the school are doing already about air quality – building on assembly	Helen Young/ David Graham	• Participating children to understand the local impact of air quality, including health. • Participating children to understand what individuals can do to help improve air quality. • Participating children to find out what the school is currently doing to improve air quality both on and off site.	16/09/13 1.5 hours
Data gathering – use of one of a number of activities to measure air quality in the local area. Suggested activities: **diffusion tubes, lichen bio-indicator and surface wipes**	David Graham	• Participating children to understand why activities for data gathering will help to analyse local air quality levels • Participating children to understand how to look for and collect data • *DG to meet Bursar and site manager to discuss onsite AQ, as well as school policies*	30/09/13 1.5 hours
Data analysis – analyse data gathered and show what it means	David Graham	• Participating children to understand how to analyse data collected, mathematically and scientifically – and how this applies to local air quality	14/10/13 1.5 hours
Action planning – consider findings from analysis and discuss local issues around traffic and what the school can do on-site to improve. Create an action plan. Action planning will include elements linked to **health and parking behaviour, protecting against poor air quality. Children encouraged to write to LA re: signage**	David Graham	• Participating children to decide how to tackle issues around traffic, in-school air quality efforts and issues highlighted by data analysis to create actions to support air quality improvements by the school and school community • Participating children to design a campaign targeting school community, and raising awareness of how to improve local air quality – invite eco-team to comment • Participating children to consider and understand how to involve and engage the whole school community and include ideas within action plan	04/11/13 1.5 hours
Action and campaign launch – create campaign and action plan that seeks to raise awareness and support positive behaviours of school community that support and encourage good air quality.	David Graham	• Participating children to finalise campaign and action plan, and understand what they have to do to aid success • Action plan to be presented to headteacher for endorsement • Campaign to be launched at next assembly, with supporting promotional work and use of appropriate communication channels to engage wider school community	18/11/13 1.5 hours
Evaluation – look at the campaign and see what has worked and hasn't, make changes and sustain campaign work beyond this term	David Graham	• Participating children to understand and analyse the campaign and advise where improvements could be made • Handover of campaign to eco-team	02/12/13 1.5 hours
Final Assembly – class run assembly highlighting what was found out, reiterating what air quality is and sustaining work beyond Xmas 2013	David Graham/ Helen Young	• Participating children to be able to summarise what they found out and educate other children in school of all ages • Participating children to be able to promote air quality issues to others, confidently • Participating children to understand that good air quality requires behaviour change for good	09/12/13 1 hours

Grange Primary School Air Quality 4 Schools Action Plan

Address: Webb Street, London, SE1 4RP
Tel: 0207 771 6121

Background

Grange Primary school is located in the north of the London Borough of Southwark.
The school is located on a narrow side street off Tower Bridge Road, the inner ring road. This road also acts as a boundary for the London Congestion Zone and a number of families cross it on their school journey.
The school have not previously participated in any air quality work, including green infrastructure or awareness raising beyond curriculum work, or work as part of eco-schools or their school travel plan.
The school is expanding with new building taking place at the front of the school. It is important that the increase in the number of potential school journeys are mitigated to stop any future air quality issues.
The school is located in a controlled parking zone and isnext to Red Route with Red Route lines going up to the school entrance. Most families arrive on foot with many using the pelican crossing on Tower Bridge Road to get to school. On a visit to the school it was noted that the Yellow zigzags need repainting.
Fresh photographic permission slips will be needed to ensure that the children's photos can be used.



A map showing Grange Primary School's location (red dotted line) and entrance (red dot), as well as local area.

Existing School activities

The school do not currently have an up-to-date school travel plan, but do run or have the following initiatives or activities linked to school travel; bike sheds and scooter racks, Bikeability training, road

safety education, and previously ran the Walk once a Week (WoW) scheme. This project will support the school in updating their school travel plan and in applying for bronze or silver level accreditation. The school have an active eco-team and have achieved silver level TfL STAR-track accreditation. They are seeking to attain green flag Ecoschools status in the coming year. Current activities run and overseen by the eco-team include; the Big Switch Off, Waste Week, Gardening Club and visits with local waste organisation, Veolia. Looking ahead, as part of after school activities the school will be launching an eco-club from September. Also, the coming year will be a year of exercise, with a physical activity focus – which could potentially link to air quality and school journey.

Issues

The school has a number of issues related to the school journey and air quality that are detailed in the below table, with some potential solutions.

Issue	**Potential Solution**
The school's main entrance is located on Webb Street, which is narrow and functions as an access road to local estates.	Run campaign that includes park and walk strands to encourage parking elsewhere. Include prompts and reminders to enforce good parking behaviour – link to improved local air quality
Parents are parking on yellow zigzags outside of school	Run campaign that includes zigzag and park and walk strands to encourage parking elsewhere. Include prompts and reminders to enforce good parking behaviour – link to improved local air quality
Parents have been parking and blocking neighbouring alleyways which are used for commercial premises, such as a local Tandoori restaurant , which can affect neighbour's relations with the school.	Children to write a joint letter to premises holder to show that something is being done. Run campaign that includes park and walk strands to encourage parking elsewhere. Include prompts and reminders to enforce good parking behaviour – link to improved local air quality
Tower Bridge Road acts as a barrier (both physically and financially – as the congestion zone boundary) this may lead to more parents parking close to the school, unwilling to pay the congestion charge zone.	Acknowledge that Congestion Zone is there and advise of alternative means of getting to school. Promote these alternatives
The school is located in an area with poor air quality	Run campaign to include promotion of health issues linked to non-active methods of school travel, as well as the short and long-term impact of driving on air quality. Promotion of protection strategies and links to air quality. Take appropriate measurements and analyse
The crossing phase on Tower Bridge Road is felt to be too short, but the phase sometimes seems to change in length.	Liaise with council and TfL about phase on crossing to see if it can be lengthened for pedestrians
There are a number of cars who leave their engines idling while they are outside school.	Run a campaign to include a strand on idling, its short term and long term impacts and how it affects health – link to air quality

A photo showing Webb Street, with main school entrances on the right hand side. Tower Bridge Road is located at the end of this road and can be seen in the distance

Communication Methods

The school communicate through a number of means. Parents receive weekly newsletters, and are invited to termly parents evenings, as well as class assemblies for their child(ren)'s year group. Letters and texts are sent home. Teachers communicate using emails, and through staff meetings, as well as receiving briefings in class. Staff also use a board and emai. to advise of visitors and upcoming events. Pupils attend regular assemblies, with some pupils participating in eco-activities through the eco school initiative once every half-term. The school council are not currently in operation, but this will be relaunched in September with fortnightly meetings.

Structure of programme for your school

The school has advised that they will probably go for a weekly session with a Year 5 class. This will be confirmed by the end of term.

Air Quality Action plan

Activity	Run by	Activity Outcomes	Date w/b
Assembly – to highlight what air quality is, how it affects the world and our weather and how to protect yourself	Helen Young	• Whole school to understand what air quality is and how to protect themselves and others. • Raise awareness of global effects of air quality and pollution • Raise awareness of how traffic can impact on air quality levels on child's school journey	11/09/13 1.5 hours
Introductory lesson – discuss and raise awareness of air quality local impact and health implications, what the school are doing already about air quality – building on assembly	Helen Young/ David Graham	• Participating children to understand the local impact of air quality, including health. • Participating children to understand what individuals can do to help improve air quality. • Participating children to find out what the school is currently doing to improve air quality both on and off site.	18/09/13 1.5 hours
Data gathering – use of one of a number of activities to measure air quality in the local area. Suggested activities: **diffusion tubes, ghost wipes, surface wipes and hands up survey**	David Graham	• Participating children to understand why activities for data gathering will help to analyse local air quality levels • Participating children to understand how to look for and collect data • *DG to meet Bursar and site manager to discuss onsite AQ, and conduct traffic survey for baseline*	02/10/13 1.5 hours
Data analysis – analyse data gathered and show what it means	David Graham	• Participating children to understand how to analyse data collected, mathematically and scientifically – and how this applies to local air quality	16/10/13 1.5 hours
Action planning – consider findings from analysis and discuss local issues around traffic and what the school can do on-site to improve. Create an action plan. This action planning will include elements linked to **protection, parking behaviour, Park & Stride, hands up survey. Children encouraged to write to neighbours**	David Graham	• Participating children to decide how to tackle issues around traffic, in-school air quality efforts and issues highlighted by data analysis to create actions to support air quality improvements by the school and school community • Participating children to design a campaign targeting school community, and raising awareness of how to improve local air quality – invite eco-team to comment • Participating children to consider and understand how to involve and engage the whole school community and include ideas within action plan	06/11/13 1.5 hours
Action and campaign launch – create campaign and action plan that seeks to raise awareness and increase positive behaviours of school community that support and encourage good air quality.	David Graham	• Participating children to finalise campaign and action plan, and understand what they have to do to aid success • Action plan to be presented to headteacher for endorsement • Campaign to be launched at next assembly, with supporting promotional work and use of appropriate communication channels to engage wider school community	20/11/13 1.5 hours
Evaluation – look at the campaign and see what has worked and hasn't worked, make changes and sustain campaign work beyond this term	David Graham	• Participating children to understand and analyse the campaign and advise where improvements could be made • Handover of campaign to eco-team	04/12/13 1.5 hours
Final Assembly – class run assembly highlighting what was found out reiterating what air quality is and sustaining work beyond Xmas 2013	David Graham/ Helen Young	• Participating children to be able to summarise what they found out and educate other children in school of all ages • Participating children to be able to promote air quality issues to others, confidently • Participating children to understand that good air quality requires behaviour change for good	11/12/13 1 hours

Peter Hills Primary School Air Quality 4 Schools Action Plan

Address: **Beatson Walk, Rotherhithe, London. SE16 5ED**
Tel: **0207 2372654**

Background
Peter Hills Primary school is located in the north east of the London Borough of Southwark. The school 's main entrance is located on Beatson Walk, a public right of way and path, which was previously gated to stop vehicular access, but the barriers are no longer in place. The school is approached from Rotherhithe Street, Salters Road and through an underpass which links the school to local housing estates. The school has not previously participated in any large scale air quality work, including green infrastructure or awareness-raising beyond curriculum work, eco-schools or their school travel plan.
Fresh photographic permission slips will be needed to ensure that the children's photos can be used.

A map showing the location of Peter Hills primary school (shown by red dotted line) and school entrances, on Beatson Walk (red circles)

The school have advised that they are happy for any surveys or counts to take place, which will support this project; including traffic and idling counts, as well as hands up surveys.

Existing School activities

The school currently have an up to date school travel plan and have had the following initiatives or activities linked to school travel; Walk once a Week (WoW), cycle clubs and Bikeability training, and bike and scooter storage. The school do have an eco-team and have achieved eco school accreditation but have advised that some staff are not convinced about the value of eco-schools.

Issues

The school has a number of issues related to the school journey and air quality.

Issues	**Potential solutions**
Beatson Walk has been accessed by vehicles, such as an ice-cream van, which can endanger pedestrians. There is a need for bollards to stop unauthorised vehicles accessing the path.	School to liaise with council (or road owner) and explain issue. Back this up with a letter from the children.
Families wishing to access the bus stop on the other side of Salter's Road are not using the crossing.	Run campaign promoting the use of the crossing point – link to safety
The underpass on Beatson Walk is not well lit, which can make people not want to use it. This then leads people to cross the road instead.	School to liaise with council to see if underpass lighting can be improved and children can be part of updating decoration. Promote use of underpass as part of campaign
Parents are parking or dropping off on Rotherhithe Street on double yellow lines	Run campaign that highlights good parking behaviours. Include prompts and reminders to enforce good behaviour – link to improved air quality
Cars parking on either side of Rotherhithe Street are narrowing the width of the road and causing congestion	Run campaign that includes park and walk strands to encourage parking elsewhere. Include prompts and reminders – link to improved local air quality
Some parents are turning directly in front of the school to get the best parking spot, closest to the school, directly where children might be crossing the road	Run campaign that highlights good parking behaviour. Include prompts and reminders – link to improved air quality

A photo showing the junction of Beatson Walk with Rotherhithe Street. Peter Hills primary school's two entrances are halfway down the path on the right. *Not, the missing barrier location at the end of Beatson Walk*

Communication Methods

The school communicate through a number of means. Parents receive weekly newsletters and are invited to a yearly parents evening in October and class assemblies for their child(ren)'s year group. The website is not used as much as the school would like. There is a Friends of Peters Hill group who liaise with parents and use word of mouth to promote directly to parents. Governors meet on a termly basis with school committee meetings taking place. Staff meet weekly to discuss school issues and use email extensively. Children have assemblies every day except Wednesday at 10.10am. Some pupils participate in school council and Junior Road Safety Officerss (from Y5 and Y6) are promoting road safety and school travel to their peers. The eco-team need to think of a way to engage doubtful staff, so that they can help spread the eco-message across school.

Structure of programme for your school

The school has advised that they will have a bi-weekly session with their Year 5 class. Their sessions will take place on Tuesdays.

Air Quality Action plan

Activity	Run by	Activity Outcomes	Date w/b
Assembly – to highlight what air quality is, how it affects the world and our weather and how to protect yourself	Helen Young	• Whole school to understand what air quality is and how to protect themselves and others. • Raise awareness of global effects of air quality and pollution • Raise awareness of how traffic can impact on air quality levels on child's school journey	10/09/13 1.5 hours
Introductory lesson – discuss and raise awareness of air quality local impact, and health implications, what the school are doing already about air quality – building on assembly	Helen Young/ David Graham	• Participating children to understand the local impact of air quality, including health. • Participating children to understand what individuals can do to help improve air quality. • Participating children to find out what the school is currently doing to improve air quality both on and off site.	17/09/13 1.5 hours
Data gathering – use of one of a number of activities to measure air quality in the local area. Suggested activities: **diffusion tubes, lichen bio-indicator and surface wipes**	David Graham	• Participating children to understand why activities for data gathering will help to analyse local air quality levels • Participating children to understand how to look for and collect data • *DG to meet Bursar and site manager to discuss onsite AQ*	01/10/13 1.5 hours
Data analysis – analyse data gathered and show what it means	David Graham	• Participating children to understand how to analyse data collected, mathematically and scientifically – and how this applies to local air quality	15/10/13 1.5 hours
Action planning – consider findings from analysis and discuss local issues around traffic and what the school can do on-site to improve. Create an action plan. This action planning will include elements linked to **parking behaviour, and crossing road safely. Children encouraged to write to LA re: barrier**	David Graham	• Participating children to decide how to tackle issues around traffic, in-school air quality efforts and issues highlighted by data analysis to create actions to support air quality improvements by the school and school community • Participating children to design a campaign targeting school community, and raising awareness of how to improve local air quality – invite eco-team to comment • Participating children to consider and understand how to involve and engage the whole school community and include ideas within action plan	05/11/13 1.5 hours
Action and campaign launch – create campaign and action plan that seeks to raise awareness and support positive behaviours of school community that support and encourage good air quality.	David Graham	• Participating children to finalise campaign and action plan, and understand what they have to do to aid success • Action plan to be presented to headteacher for endorsement • Campaign to be launched at next assembly, with supporting promotional work and use of appropriate communication channels to engage wider school community	19/11/13 1.5 hours
Evaluation – look at the campaign and see what has worked what hasn't, make changes and sustain campaign work beyond this term	David Graham	• Participating children to understand and analyse the campaign and advise where improvements could be made • Handover of campaign to eco-team	03/12/13 1.5 hours
Final Assembly – class run assembly highlighting what was found out, reiterating what air quality is and sustaining work beyond Xmas 2013	David Graham/ Helen Young	• Participating children to be able to summarise what they found out and educate other children in school of all ages • Participating children to be able to promote air quality issues to others, confidently • Participating children to understand that good air quality requires behaviour change for good	10/12/13 1 hours

Rotherhithe Primary School Air Quality 4 Schools Action Plan

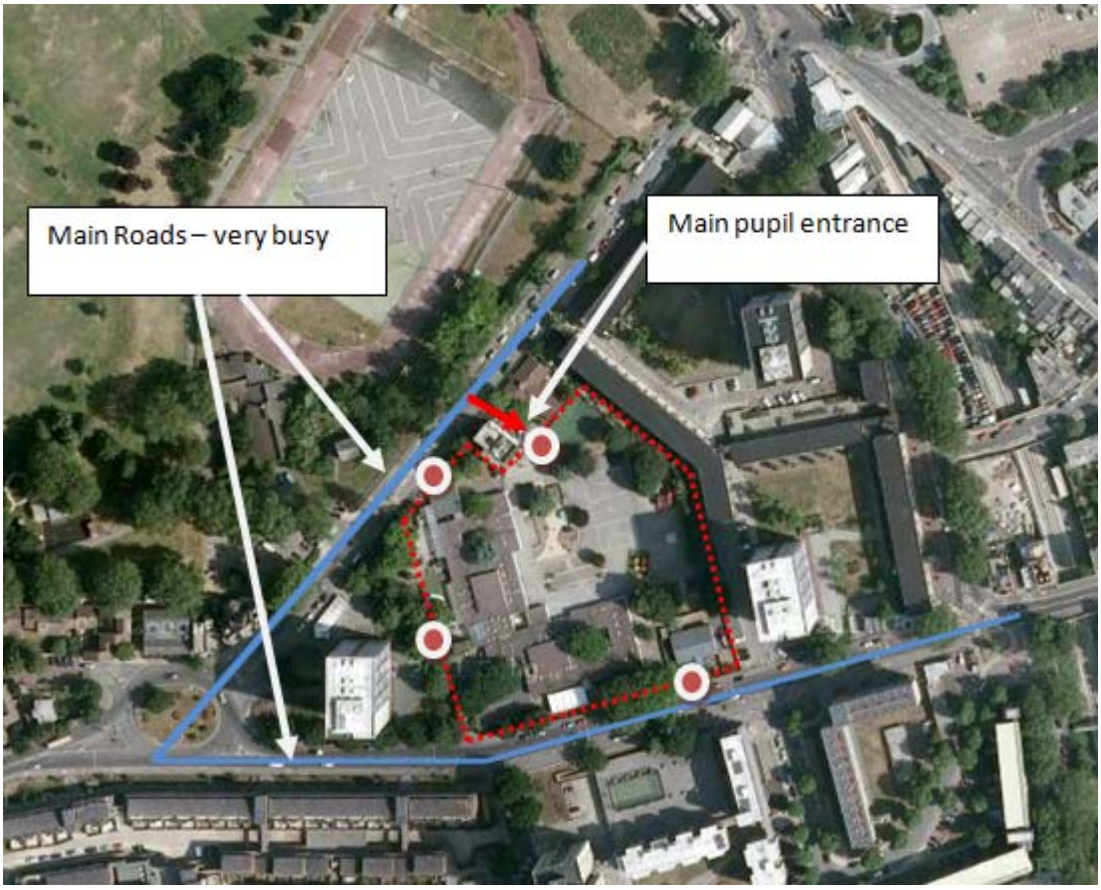
Address: **Rotherhithe New Road, London, SE16 2PL**
Tel: **0207 237 1586**

Background

Rotherhithe Primary school is located in the north of the London Borough of Southwark, and has agreed to participate in an Air Quality Programme.

The school is located close to the junction of two main roads, Rotherhithe New Road and Hawkstone Road, with a main entrance located at the end of Hodnet Grove, a short cul-de-sac, off of Hawkstone Road. In addition there are entrances to the Nursery and Children's Centre on Hawkstone Road and Rotherhithe New Road respectively, as well as staff and visitor access points. The reception class access the school through a side entrance next to Addy House. There are a number of parents driving to the school and using unrestricted parking in Southwark Park, as well as parking illegally in controlled parking areas, close by.

The school have not previously participated in any large scale air quality work, including green infrastructure or awareness-raising beyond curriculum work, eco-schools or their school travel plan. Fresh photographic permission slips will be needed to ensure that the children's photos can be used.



A map showing Rotherhithe Primary School

The school have advised that they are happy for any surveys or counts to take place, which will support this project; including traffic and idling counts and hands up surveys.

Existing School activities

The school currently have an up to date school travel plan and have the following initiatives or activities linked to school travel; an after-school cycling club, Biker's Breakfast, Cycle training, road safety education and Be Bright Be Seen, provision of cycle and scooter storage, Walk on Wednesday, Theatre in Education, travel training for vulnerable children. In addition, PCSOs come into talk to school about being safe on the streets.

The school have an eco-team and have achieved eco school accreditation, but have advised that the eco-team needs to be re-established in September.

Issues

The school has a number of issues related to the school journey and air quality.

Issues	**Potential solutions**
The school reports that there are air quality issues on Rotherhithe New Road with many trucks and large vehicles using the road	Measurements will be taken on both main roads to see what the traffic impact is and protection strategies promoted as part of lesson plans
The school advise that when the Rotherhithe tunnel is closed that the traffic backs up beyond the school	School to liaise with TfL to ask to be advised when tunnel is closed, so that the school can plan accordingly, e.g. notifying parents
There is no school sign on Rotherhithe New Road to notify drivers of the school being there	Children to write a joint letter to LA. Part of lessons. School to liaise with council
There are issues with residents'cars in Hodnet Grove, next to the main pedestrian entrance, causing an issue with access. The premises manager now has to block off the road in the morning to stop parents driving right up to the entrance. The school does 'own' a section of the road, which a neighbour parks on occasionally, disregarding safety and access.	School to liaise with council to investigate purchase of collapsible bollards to ensure safety of children accessing school from Hodnet Grove. Children to write letter to residents and doctors will consider enforcing clamping of cars on school-owned part of road for safety reasons.
Parents are at risk of ticketing as they are parking on restricted parking areas.	Run campaign that includes encouraging parking and walking, especially with free parking in Southwark Park, to include route to school gate. Include prompts and reminders to encourage good parking behaviour – link this to improved air quality
Some parents are reversing into Hawkstone Road	Run campaign that highlights good parking behaviour. Include prompts and reminders – link this to improved air quality

A photo showing junction of Hawkstone Road and Hodnet Grove – Rotherhithe primary school's entrance is on the far right of the photo

A photo showing the school-owned section of Hodnet Grove, next to school entrance (to left of picture). *Note: neighbour parking on school owned area*

Communication Methods

Parents receive regular newsletters and texts or phone calls for specific events or in emergencies. The website is another communication channel. Governors meet on a termly basis. Staff meet weekly to discuss school issue. They use email extensively to communicate as well as receiving briefings in class. There is also a staff noticeboard which is kept up to date. There are regular assemblies where children are updated about wider issues. The eco team will be re-established and the school has an active school council who are elected to position and meet once a month (on the second Friday). The school also has Junior Road Safety Officerss (from Y5 and Y6) who promote road safety and school travel to their peers. Looking ahead from September, the eco-team will be relaunched, as well as a new parent's room, which will use visual posters to promote what the school is doing.

Structure of programme for your school

The school has advised that they will go for bubble days and have already booked 3 days in October Monday 7th to Tuesday 8th with an additional morning or afternoon session required in late October.

Air Quality Action plan

Activity	Run by	Activity Outcomes	Date
Assembly – to highlight what air quality is, how it affects the world and our weather and how to protect yourself	Helen Young	• Whole school to understand what air quality is and how to protect themselves and others. • Raise awareness of global effects of air quality and pollution • Raise awareness of how traffic can impact on air quality levels on child's school journey	07/10/13 0.5 hours
Introductory lesson – discuss and raise awareness of air quality local impact and health implications, what the school are doing already about air quality – building on assembly	Helen Young/ David Graham	• Participating children to understand the local impact of air quality, including health. • Participating children to understand what individuals can do to help improve air quality. • Participating children to find out what the school is currently doing to improve air quality both on and off site.	07/10/13 1hours
Data gathering – use of one of a number of activities to measure air quality in the local area. Suggested activities: **traffic count, diffusion tubes, ozone badges, ghost wipes & HU survey**	David Graham	• Participating children to understand why activities for data gathering will help to analyse local air quality levels • Participating children to understand how to look for and collect data • *DG to conduct traffic survey for baseline, and meet Bursar and site manager to discuss onsite AQ*	07/10/13 1.5 hours
Data analysis – analyse data gathered and show what it means	David Graham	• Participating children to understand how to analyse data collected, mathematically and scientifically – and how this applies to local air quality	08/10/13 1.5 hours
Action planning – consider findings from analysis and discuss local issues around traffic and what the school can do on-site to improve. Create an action plan. This action planning will include elements linked to **parking behaviour, safety, launching a Park & Stride campaign to S'wark Park. Children to write LA and neighbours**	David Graham	• Participating children to decide how to tackle issues around traffic, in-school air quality efforts and issues highlighted by data analysis to create actions to support air quality improvements by the school and school community • Participating children to design a campaign targeting school community, and raising awareness of how to improve local air quality – invite eco-team to comment • Participating children to consider and understand how to involve and engage the whole school community and include ideas within action plan	08/10/13 1.5 hours
Action and campaign launch – create campaign and action plan that seeks to raise awareness and support positive behaviours of school community that support and encourage good air quality.	David Graham	• Participating children to finalise campaign and action plan, and understand what they have to do to aid success • Action plan to be presented to headteacher for endorsement • Campaign to be launched at next assembly, with supporting promotional work and use of appropriate communication channels to engage wider school community	08/10/13 1.5 hours
Evaluation – look at the campaign and see what has worked and what hasn't, make changes and sustain campaign work beyond this term	David Graham	• Participating children to understand and analyse the campaign and advise where improvements could be made • Handover of campaign to eco-team	w/b 21/11/13 1.5 hours
Final Assembly – class run assembly highlighting what was found out, reiterating what air quality is and sustaining work beyond Xmas 2013	David Graham/ Helen Young	• Participating children to be able to summarise what they found out and educate other children in school of all ages • Participating children to be able to promote air quality issues to others, confidently • Participating children to understand that good air quality requires behaviour change for good	w/b 21/10/13 1 hours

St. Francesca Cabrini RC Primary School Air Quality 4 Schools Action Plan

Address: Honor Oak Park, London, SE23 3LE
Tel: 0208 699 8862

Background

St. Francesca Cabrini RC Primary School is located in the south of the London Borough of Southwark. The school is located close to the junction of three busy roads, Honor Oak Park, Honor Oak Road and Forest Hill Road, all converge on the top of a steep hill. Honor Oak Road is located in the adjacent London Borough of Lewisham. The school's main entrance is on Forest Hill Road, with all approaches covered by double yellow lines, except across from the main school entrance on Forest Hill Road. The school have not previously participated in any large scale air quality work, including green infrastructure or awareness-raising beyond curriculum work, eco-schools or their school travel plan. Fresh photographic permission slips will be needed to ensure that the children's photos can be used.

A map showing St. Francesca Cabrini RC Primary schools location (red dotted line) and entrance (red circle) on Forest Hill Road.

The school have advised that they are happy for any surveys or counts to take place, to support this project; including traffic and idling counts and hands up surveys.

Existing School activities

The school currently have an up to date school travel plan and have run the following initiatives or activities linked to school travel; Walk Once a Week (WoW), cycle storage, cycle training, promotion through the curriculum, assemblies, Junior Road Safety Officers promotion and road safety education. The school do not currently have an eco-team but this is something that they will be considering.

Issues

The school has a number of issues related to the air quality and the school journey.

Issue	Potential solution
The school reports that there are accidents on the road outside due to being located at junction and on a hill	Ensure that children are reminded to be careful on surrounding roads. Can be covered in assembly and in lessons linked to campaign creation
The school would like to see a barrier to stop children running out onto the road.	Children to write a letter to the LA requesting a barrier be put in place – school council/eco team to liaise with LA
The school has quite a high rate of asthma	Use diffusion tubes and ghost wipes to measure harmful pollutants. Promote protection strategies through assembly and introduction lessons. Ask children to consider how to tackle this as part of promotional work. Promote health issues of driven school journey and benefits of walking/cycling
The school has received a lot of complaints from local residents due to parents parking across driveways on Honor Oak Road, Netherby Road and Canonbie Road	Run campaign to reduce poor parking behaviour. Ensure all local residents are made aware of school efforts to reduce parking nuisance through campaign targeting parking behaviour and promotion of other means of travel.
Parents do park on zigzags outside of the school and on double yellow lines	Run campaign that includes zigzag and park and walk to encourage parking elsewhere. Include prompts and reminders to encourage good parking behaviour – link to improved local air quality
Parents are reversing and doing u-turns on Forest Hill Road, which is dangerous and causes traffic jams	Run campaign that highlights good parking behaviour. Include prompts and reminders
School crossing patrol in place, using an island in middle of road. Cars do not always stop on request.	Run campaign to include information and celebration of School Crossing Patrol and promote its use by parents. Back up SCP with banners promoting school presence and the need for drivers to consider children in locality
School do not have an eco-team in operation	Help school relaunch eco-team and ensure that they are kept abreast of campaign and activity developments. Eco-team will be managing any work after initial project finishes.

A photo showing cars parked on either side of Forest Hill Road on approach to St. Francesca Cabrini's school entrance (to right of picture). In distance is School Crossing Patrol. This picture is looking downhill

Communication Methods

The school communicate through a number of means. Parents receive regular newsletters and letters from the headteachers. There is also a school website, which is currently undergoing updating. Governors meet half-termly and staff receive daily briefings, with weekly staff meetings. Pupils receive regular assemblies, with the school council meeting fortnightly and Junio Road Safety Officers meeting half-termly.

Structure of programme for your school

The school has advised that they will go for the twelve week programme, working with a Y6 class

Air Quality (AQ) Action plan

Activity	Run by	Activity Outcomes	Date w/b
Assembly – to highlight what air quality is, how it affects the world and our weather and how to protect yourself	Helen Young	• Whole school to understand what AQ is and how to protect themselves and others. • Raise awareness of global effects of AQ and pollution • Raise awareness of how traffic can impact on AQ levels on child's school journey	12/09/13 0.5 hours
Introductory lesson – discuss and raise awareness of air quality local impact, and health implications, what the school are doing already about AQ – building on assembly	Helen Young/ David Graham	• Participating children to understand the local impact of air quality, including health. • Participating children to understand what individuals can do to help improve AQ. • Participating children to find out what the school is currently doing to improve air quality both on and off site.	12/09/13 1hours
Data gathering – use of one of a number of activities to measure AQ in the local area. Suggested activities: **hands up survey, diffusion tubes, lichen bio-study, ghost wipes, ozone badges**	David Graham	• Participating children to understand why activities for data gathering will help to analyse local air quality levels • Participating children to understand how to look for and collect data • *DG to conduct traffic survey for baseline and meet Bursar and site manager to discuss onsite AQ*	12/09/12 1.5 hours
Data analysis – analyse data gathered and show what it means	David Graham	• Participating children to understand how to analyse data collected, mathematically and scientifically – and how this applies to local air quality	03/10/13 1.5 hours
Action planning – consider findings from analysis and discuss local issues around traffic and what the school can do on-site to improve. Create an action plan. This action planning will include elements linked to **health and parking behaviour. Children encouraged to write to LA**	David Graham	• Participating children to decide how to tackle issues around traffic, in-school AQ efforts/issues highlighted by data analysis, create actions to support AQ improvements by school community • Participating children to design a campaign targeting school community, and raising awareness of how to improve local air quality – invite eco-team to comment • Participating children to consider and understand how to involve and engage the whole school community and include ideas within action plan	10/10/13 1.5 hours
Action and campaign launch – create campaign and action plan that seeks to raise awareness and support positive behaviours of school community that support/ encourage good AQ	David Graham	• Participating children to finalise campaign and action plan, and understand what they have to do to aid success • Action plan to be presented to headteacher for endorsement • Campaign to be launched at next assembly, with supporting promotional work and use of appropriate communication channels to engage wider school community	24/10/13 1.5 hours
Evaluation – look at the campaign and see what has and hasn't worked, make changes and sustain campaign work beyond this term	David Graham	• Participating children to understand and analyse the campaign and advise where improvements could be made • Handover of campaign to eco-team	07/11/13 1.5 hours
Final Assembly – class run assembly highlighting what was found out, reiterating what AQ is and sustaining work beyond Xmas 2013	David Graham/ Helen Young	• Participating children to be able to summarise what they found out and educate other children in school of all ages • Participating children to be able to promote air quality issues to others, confidently • Participating children to understand that good air quality requires sustained behaviour change	21/11/13 1 hours

Appendix 2

Lessons

In-school lesson delivery and activities

Parose Projects developed the lesson plans for each school and delivered them.

Launch Assembly Each school received a launch assembly, which was presented by Helen Young, where the whole school (or Key Stage, where appropriate), were introduced to air quality and air pollution, how this affected the world and their local environment, as well as protection strategies against poor air quality.

Lesson One In the first lesson the nominated class (either Y5 or Y6 children) revised the information that was covered in assembly, looked at initial ideas for what they could do to improve air quality and were introduced to what they would be covering over the course of the CA4S project. Children were asked to design their own Air Quality badges which they were asked to wear home as a promotional tool for air quality and the work that the children would be doing.

Lesson Two Three or four different experiments (surface wipes, diffusion tubes, ghost wipes, ozone strips) were introduced that pupils would be conducting to measure air quality and different pollutants around the school. Each pupil received their own map and were shown how to use the map to determine where each experiment should take place. Each class was were split into four groups (one for each cardinal direction). Using their maps as a guide and a record form to collect and show the times that they collected their data, pupils went outside to carry out their experiments. Results were collated for later discussion.

Lesson Three Pupils took part in an air quality quiz. A factsheet containing experiment results, (that were available, some awaitied independent analysis) and pupils were asked to consider what the results and factsheets showed. Pupils thought about what factors and issues affect local air quality, and worked in groups to come up with ideas and solutions.

Each group presented on their ideas and solutions to the class. The session ended with pupils debating why the ideas might or might not work, to help identify the most realistic solutions.

Lesson Four Introduced the concept of campaigns, social marketing and marketing terminology. Pupils reviewed other campaign materials to gain an understanding of what is eye catching and persuasive.
A short film was used to highlight the importance of air quality on health to reinforce what they had been learning. The group looked at persuasion techniques, such as AFOREST, to help them start thinking about how they would design their own materials. Pupils worked in groups, picking their most important 'issue' and then developing their 'solution' into an air quality campaign idea. They considered how to communicate with their target audience, what their call to action or slogan would be and what methods they would use to get their audiences' attention.

Lesson Five Each group presented their air quality campaign idea and the class voted for their favourite. The winning campaign idea was the basis for their schools campaign. Following this, one type of campaign material was given to each group to create, with all children given the opportunity to do a draft copy and then, after advice from their classmates, create a final version of their specific campaign material resource (e.g. leaflet, poster, letter). Children were reminded that each of their designs should incorporate their campaign's call to action, as well as using persuasive language.

Lesson Six Was used to complete campaign material designsand a film about presentation skills was shown to pupils in preparation for the development of their whole school assembly. If the campaign had already been launched the pupils were asked to evaluate what had happened so far to and think about what they would change. Working in groups pupils created the different elements of the assembly and start practising what they would do.

Lesson Seven Was wholly given over to practising for the school assembly, providing an opportunity to bring together the different elements of the assembly and ensure that the assembly had structure. Classes often carried out additional practise sessions prior to their own assemblies. Children were also asked to evaluate the campaign, so far, if they had launched their campaign.

Final Assembly The assembly was then held for the whole school (or Key Stage 2. Children shared what they had learned and informed the school what they were doing about it. Most schools included an Air Quality song in their assembly which used a karaoke backing track with adapted lyrics, as well as some acting, and presentation of their campaign materials.

Appendix 3- Forms used for recording data

Experiment Record Form date: .....

Direction... **Location 1: inside school**

Where? .....

Ozone strip				
	Exposure time		Sample code	Result
	From what time?	To what time?		

Surface Wipes			
Surface details	Height	Paste your sample here	Level 1 to 4
In school  	120cm	X	
	90cm	X	
	60cm	X	
	30cm	X	

Location 2: outside school perimeter

Where? .....

Ozone strip				
	Exposure time		Sample code	Result
	From what time?	To what time?		

Surface Wipes			
Surface details	Height	Paste your sample here	Level 1 to 4
Outside school  	120cm	X	
	90cm	X	
	60cm	X	
	30cm	X	

Location 3: 200m from school

Where? .....

Ozone strip				
	Exposure time		Sample code	Result
	From what time?	To what time?		

Surface Wipes			
Surface details	Height	Paste your sample here	Level 1 to 4
In school 	120cm	X	
	90cm	X	
	60cm	X	
	30cm	X	

Diffusion tube – 200 metres from school				
Tube Sampling 	Six digit ID Number	Time cap removed	Date and time cap replaced and tube collected	Hours tubes outside for

Stick Ozone strips here with Prittstick

1 2 3

Appendix 4 – Evaluation – pupils awareness survey results

All figures are percentages

St Francesca Cabrini RC Primary

St Francesca Cabrini		Participating classes		non-participating classes (except for Launch assembly)	
		before	**after**	**before**	**after**
	It is better to switch the engine off and wait	100	100	96	88
	Most air pollution in London comes from cars and transport	96	86	46	28
	Asthma/ Hot sunny day -what do you need to remember – Inhaler	100	100	88	96
Which chemicals/ air pollutants pupils had heard…		**Participating classes**		**non-participating classes (except for Launch assembly)**	
		before	**after**	**before**	**after**
	Nitrogen dioxide	96	96	67	64
	Particulates	44	71	13	20
	PM10	0	18	0	4
	Ozone	7	96	13	12
Put a circle around the types of transport that keep our air cleaner					
		Participating classes		non-participating classes (except for Launch assembly)	
		before	**after**	**before**	**after**
		48	50	58	20
	Bus	0	0	4	0
	Train	7	4	4	0
	Walk	100	96	75	84
	Cycle	93	93	71	92
	Car	0	0	0	0
	Scooter	85	25	63	60
Do you know what Park & stride means?					
		Participating classes		**non-participating classes (except for Launch assembly)**	
		before	after	before	after
	Yes	100	100	63	60
	not sure	0	0	21	28
	no	0	0	13	8
		Participating classes		**non-participating classes (except for**	

				Launch assembly)	
Some indoor plants can help make better air quality		**before**	**after**	**before**	**after**
	TRUE	74	64	42	64
	not sure	19	25	42	12
	FALSE	4	11	8	16
There's more pollution inside a car than there is on the pavement					
	TRUE	44	93	21	36
	not sure	15	0	21	8
	FALSE	41	7	50	48
It's healthier for us to walk on back streets with less traffic					
	TRUE	70	93	50	48
	not sure	11	4	38	12
	FALSE	19	4	0	32

Grange Primary

Grange Primary		Participating classes		non-participating classes (except for Launch assembly)	
		before	**after**	**before**	**after**
It is better to switch the engine off and wait		95	100	0	0
Most air pollution in London comes from cars and transport		62	75	0	0
Asthma/ Hot sunny day -what do you need to remember - Inhaler		92	94	0	0
Which chemicals/ air pollutants pupils had heard of….		**Participating classes**		**non-participating classes (except for Launch assembly)**	
		before	**after**	**before**	**after**
	Nitrogen dioxide	62	81	0	0
	Particulates	46	69	0	0
	PM10	0	14	0	0
	Ozone	13	73	0	0
Put a circle around the types of transport that keep our air cleaner		Participating classes		non-participating classes (except for Launch assembly)	
		before	**after**	**before**	**after**
	park & stride	8	28	0	0
	Bus	16	16	0	0
	Train	3	3	0	0
	Walk	92	97	0	0
	Cycle	76	81	0	0
	Car	5	0	0	0
	Scooter	73	75	0	0
Do you know what Park & stride means?		**Participating classes**		**non-participating classes (except for Launch assembly)**	
		before	after	before	after
	Yes	28	46	0	0
	not sure	53	30	0	0
	no	19	24	0	0
		Participating classes		**non-participating classes (except for Launch assembly)**	
Some indoor plants can help make better air quality		**before**	**after**	**before**	**after**
	TRUE	72	65	0	0
	not sure	22	27	0	0
	FALSE	6	8	0	0
There's more pollution inside a car than there is on the pavement					
	TRUE	38	41	0	0
	not sure	28	27	0	0
	FALSE	34	32	0	0

It's healthier for us to walk on back streets with less traffic					
	TRUE	62	78	0	0
	not sure	27	16	0	0
	FALSE	8	6	0	0

Bessemer Grange Primary

Bessemer Grange		Participating classes		non-participating classes (except for Launch assembly)	
		before	after	before	after
	It is better to switch the engine off and wait	91	100	100	97
	Most air pollution in London comes from cars and transport	30	45	95	84
	Asthma/ Hot sunny day -what do you need to remember - Inhaler	97	100	92	92
Which chemicals/ air pollutants pupils had heard…		**Participating classes**		**non-participating classes (except for Launch assembly)**	
		before	after	before	after
	Nitrogen dioxide	76	85	63	62
	Particulates	15	67	0	19
	PM10	3	85	3	19
	Ozone	21	85	37	30
Put a circle around the types of transport that keep our air cleaner		Participating classes		non-participating classes (except for Launch assembly)	
		before	**after**	**before**	**after**
	park & stride	15	42	47	46
	bus	0	0	5	19
	train	18	3	8	0
	walk	82	97	92	84
	cycle	61	100	87	78
	car	6	0	3	0
	scooter	64	97	79	59
Do you know what Park & stride means?		**Participating classes**		**non-participating classes (except for Launch assembly)**	
		before	after	before	after
	yes	36	42	95	76
	not sure	36	27	3	14
	no	27	27	3	8
		7	15	11	19
		Participating classes		**non-participating classes (except for Launch assembly)**	
Some indoor plants can help make better air quality		**before**	**after**	**before**	**after**
	TRUE	52	73	53	59
	not sure	39	15	26	24
	FALSE	12	9	21	14

There's more pollution inside a car than there is on the pavement					
	TRUE	27	30	13	46
	not sure	21	18	18	24
	FALSE	52	52	68	27
It's healthier for us to walk on back streets with less traffic					
	TRUE	61	91	71	68
	not sure	18	6	16	14
	FALSE	15	3	13	16

Rotherhithe Primary

Rotherhithe		Participating classes		non-participating classes (except for Launch assembly)	
		before	after	before	after
It is better to switch the engine off and wait		89	100	82	95
Most air pollution in London comes from cars and transport		85	93	75	71
Asthma/ Hot sunny day -what do you need to remember – Inhaler		96	100	82	81
Which chemicals/ air pollutants pupils had heard…		**Participating classes**		**non-participating classes (except for Launch assembly)**	
		before	after	before	after
	Nitrogen dioxide	56	85	46	81
	Particulates	4	44	14	29
	PM10	4	15	1	14
	Ozone	18	89	7	24
Put a circle around the types of transport that keep our air cleaner		Participating classes		non-participating classes (except for Launch assembly)	
		before	**after**	**before**	**after**
	park & stride	15	56	4	24
	bus	7	7	14	0
	train	4	0	7	10
	walk	67	81	64	90
	cycle	70	85	61	71
	car	0	0	14	0
	scooter	67	81	39	62
Do you know what Park & stride means?		**Participating classes**		**non-participating classes (except for Launch assembly)**	
		before	after	before	after
	yes	22	48	11	48
	not sure	52	44	68	33
	no	22	7	14	19
		Participating classes		**non-participating classes (except for Launch assembly)**	
Some indoor plants can help make better air quality		**before**	**after**	**before**	**after**
	TRUE	74	70	46	67
	not sure	26	22	43	24
	FALSE	0	7	4	10
There's more pollution inside a car than there is on the pavement					
	TRUE	59	41	32	14
	not sure	33	26	46	33
	FALSE	7	33	14	52
It's healthier for us to walk on back streets with less traffic					
	TRUE	78	89	54	67
	not sure	15	7	29	29
	FALSE	4	4	4	5

Appendix 5 - Recommendations for follow up work for each school

Rotherhithe Primary School

Background

Rotherhithe Primary ran a campaign linked to saving energy in their school premises. This campaign worked well for the participating class and was easy to run, but didn't involve much contact with parents. It would not have affected local air quality but will have had an effect on air quality at the source (e.g. power station).

Next steps for current in-school campaign

The teacher running the campaignadvised that they would like the campaign to be run again, periodically, through the school year, to remind other teachers and pupils to consider energy saving. The campaign could be taken on by the school council or continue to be overseen by Cutty Sark class.

The school achieved eco-schools Bronze level in 2009, but there is no record of any subsequent promotional work. Parose would recommend that an eco-committee be set up, and that they oversee and promote reduction in energy use across the school and to parents. Comparisons in energy bills could take place to see the impact of the energy saving campaign on cost or energy use (comparison of same times of year from different years).

Potential additional campaign work

Rotherhithe Primary school has some issues with parents blocking the school entrance access road. This may influence safety perception and those walking to school, as well as causing parking and congestion near the school, which will in turn impact on local air quality at dropping off and picking up time. In addition, the school is located between two busy roads. Parose recommends the following additional steps/campaign to reduce impact.

Investigate offering a Park & Stride from two locations; Southwark Park and Surrey Quays Shopping Centre (both less than 5 minutes from school). This could include:

- Conduct a whole school postcode plot to see where parents are travelling from – use Batchgeo to create map with postcodes plotted (www.batchgeo.com)
- Letter to be sent to council and British Land to ask for support (www.britishland.com) (http://www.southwark.gov.uk/parks) and liaise in person, where possible.
- Look at potential for sponsorship from British Land for prizes (http://www.britishland.com/contacts/responsibility.aspx)
- Letters and maps to go home to parents explaining Park & Stride, and why dropping off is bad
- Launch event with prizes for parents and children who participate in Park & Stride
- Name and Shame of parents (or their cars) that park across Hodnet Grove
- Assembly advising children how Park & Stride will work
- Parents Evening mention of Park & Stride
- All new parents to be made aware of school's expectations around parking
- Potential for walking bus or teachers to accompany children from Park & Stride sites to school
- Regular prizes or promotional work (especially in winter and beginning of term) so that parents are aware or remember campaign is essential.

Additional benefits for school – support for maintaining Bronze or achieving Silver level STARS accreditation in 2014, and with activity for the school's school travel plan

Charles Dickens Primary School

Background

Charles Dickens primary school ran an in-house energy saving campaign, which was called “Lights off, blinds open”, focusing on using natural light and turning off equipment not in use. This campaigndid not have a large amount of parental involvement, apart from parents who attended Barnaby Class’s assembly. This campaign was fairly easy to run, and involved pupil promotion to other classes within the school.

Next steps for current in-school campaign

The school has an active eco committee, and even though they had previously run an energy saving campaign, this had not taken place for a while, with the school focusing more on other areas, such as recycling. Parose would recommend that this campaign could be taken over by the eco-committee, and run alongside other efforts to save energy and for the school to be more sustainable. This may require the other elements of sustainability to be upgraded with their own mini-campaigns and slogans to generate interest amongst other pupils and teachers.

Potential additional campaign work

With the school being located within London’s congestion zone, and having a relatively small catchment area, the numbers of parents contributing to bad air quality is quite small in comparison to other Southwark schools. The school have undertaken some recent promotional work to reduce the number of parents, who do drive, from parking on the yellow zig zags outside the school premises (Stage I), and Parose would advise building on this to promote the message of safe parking, preferably slightly away from the school gates. The following is suggested:

Keep off the Zigzags (Stage II)

- Use TFL’s Zigzag, Park & Walk toolkit – using relevant sections – to promote not parking on zigzags
- Give out Zigzag badges to parents who drive asking them not to park on zigzags. These badges will act as a reminder to parents, as they can be placed in tax disc holder
- Letter home to parents, signed by children, asking them not to park on zigzags
- Invite SMART car from council to monitor zigzag parking. This should be framed as supporting children’s safety, and parents should be warned that this will be coming to school
- Create a banner which can be hung outside the school to promote not parking on zigzags
- Have launch day with prizes to promote parking considerately

Additional benefits for school – support for maintaining Bronze or achieving Silver level STARS accreditation in 2014, and with activity for the school’s school travel plan

Peter Hills CE Primary School

Background

Peter Hills Primary School decided to run an anti-idling campaign as parents had been seen leaving their engines on when dropping off or picking up kids. The campaign “Engines Off: Healthy Kids” was not promoted before the children had approached parents, as it was felt that the element of surprise would have more impact. Children from Intrepid class went out at the end of the day to leaflet parents, thanking those who had parked and turned their engines off, and asking those with their engine on to turn it off. Children then presented to parents at a class assembly about their campaign.

Next steps for current in-school campaign

The campaign will require some additional promotion, as the leafleting was only conducted on one day at the school and not all parents attended the class assembly. Parose would recommend that regular promotion happens through the school’s newsletter, as well as at parent’s evenings and with new parents. In addition, a termly ‘engine check’ where children go out and check that cars are turning off their engines, with new leaflets, would be a good way to engage parents and would remind them about the campaign.

The school do not currently have an active eco-committee. Iit is recommended that this campaign be used as a fresh starting point for a new Eco Committee.

Potential additional campaign work

The school is lucky to be located on a traffic-free pathway. While there is some parking, car use is relatively low, even so it is recommended that there is some campaign to reduce the number of cars being driven to the nearest parking points to the school.

Investigate a **Park & Stride from Timber Pond Road -** This is a five minute walk from the school on a traffic-free route, straight to the school’s main entrance. It would also allow any siblings who attend Bacon’s College to also be dropped off.

- Conduct a whole school postcode plot to see where parents are travelling from – use Batchgeo to create map with postcodes plotted (www.batchgeo.com)
- Letter to be sent to council Bacons College to ask for support
- Letters and maps to go home to parents explaining Park & Stride, and why dropping off at school is bad
- Launch event with prizes for parents and children who participate in Park & Stride
- Assembly advising children how Park & Stride will work
- Parents Evening mention of Park & Stride
- Liaise with council to see if improvements can be made to the underpass on Beatson Walk, which the school could be involved in (e.g. lighting, planting etc.)
- All new parents to be made aware of school’s expectations around parking
- Potential for walking bus or teachers to accompany children from parking points
- Regular prizes or promotional work (especially in winter and beginning of term) so that parents are aware or remember campaign is essential.
- Promote the sociable aspect of walking together with other parents

Additional benefits for school – support for maintaining Gold level STARS accreditation, and with activity for the school’s school travel plan

St. Francesca Cabrini RC Primary School

Background

The school wanted to run a campaign that was long term due to their unique setting, located at the top of a hill at the junction of three busy roads. Parents have been seen undertaking, doing u-turns outside the school and dropping off on the school's zigzags. St. Francesca Cabrini primary school will be running a campaign, "Less Cars: Less Pollution", over the next term, linked to moving parents from parking outside the school. Parents will be asked to not park right outside of the school, but to use side roads and then park and walk to the school gates. They will be provided with badges asking them to support parking away from school. There is a school crossing patrol in place which can be used by families parking on the south side of Forest Hill Road. Parents will be approached by children on both sides of Forest Hill Road asking them to park somewhere safer and also to reduce pollution exposure of children at school gates

Next steps for school campaign

This campaign will be the most fully developed of all participating schools. It is recommended that mention of the campaign take place at all opportunities, such as parents' evenings, induction meetings and in assemblies that parents are invited to. An exclusion zone could be officially established which is clearly laid out and promoted. A large map, with participation rules, could be displayed on the school premises, so that parents can see it and understand what they need to do and why they should do it. In addition, the school could consider investing in a banner which could be placed on the school fence, facing Forest Hill Road.

Potential additional campaign work

As the school are already running a campaign to move traffic away, the next logical step is to run an incentive scheme that will reward efforts to travel sustainably to school.

Investigate running an **Active Travel scheme** (not driving to school gates)

The school should consider running a sustainable transport incentive scheme, such as WoW (www.livingstreets.org.uk/wow) which will reward those children who walk, cycle, use Park & Stride, scoot or use the bus to get to school. Parents will have no excuse once the new "Less Cars:Less Pollution" has been running for a while, as this does offer alternative options for those who must drive. To make this a success the following is suggested:

- Decide on the rules for participation, make sure to include those families that park and stride (start at active travel
- Hold an assembly so that all the children know what to do and what they will get for participating
- Hold a big launch event, with prizes, to celebrate launching the scheme at the school. The local council may be able to help with this
- Give children responsibility for policing this, and make sure that they are strict
- Monthly prizes are great, but there should also be inter-class competition, as well as prizes for adults at least once a term
- Promotions should take place regularly, in school newsletter, in playground, with people still driving to school gates

Additional benefits for school – support for maintaining Bronze or achieving Silver STARS accreditation, and with activity for the school's school travel plan

Bessemer Grange Primary School

Background

Bessemer Grange Primary school decided to run an anti-idling campaign as many families were driving to school and parking outside. The campaign, “Less Pollution: More Solutions” involved parents in cars being given literature and special badges designed by the children. Parents with their engines off were thanked and those with their engines on were asked to turn them off. Children from Class 5AC spoke to parents one early December morning and promoted what they were doing in a class assembly. No promotion took place before the on-street activity so that children could use the element of surprise and catch parents idling.

Next steps for school campaign

In order to get the most from the school campaign another round of on-street work is required to ensure that the message is getting to parents - a termly ‘engine check’ where children go out and check that cars are turning off their engines, with new leaflets, would be a good way to engage parents and would remind them about the campaign. This should be supported by promotional work through the school’s newsletter, discussions in the playground and posters on the school fence promoting turning engines off.

In addition, the school do not currently have an active eco-committee; it is recommended that this campaign be used as a fresh starting point for a new Eco Committee.

Potential additional campaign work

This school had the largest amount of car use amongst all schools. Issues around parking behaviour and space, as well as children walking and crossing outside school, should be prioritized. The anti-idling campaign is a start, but there should be a focus on promoting alternative ways of getting to school, including moving traffic away from the school gates to make it safer and more pleasant for those arriving by active means.

Investigate a **Park & Stride from Dulwich Hamlet Football Club.** This is a five minute walk from the school on a traffic-free route, straight to the school’s main entrance.

- Conduct a whole school postcode plot to see where parents are travelling from – use Batchgeo to create map with postcodes plotted (www.batchgeo.com)
- Investigate useful places where parents can park (Dulwich Hamlet Football Club, Greendale etc.)
- Letter to be sent to Dulwich Hamlet to ask for support
- Letters and maps to go home to parents explaining Park & Stride, and why dropping off at school is bad
- Launch event with prizes for parents and children who participate in Park & Stride
- Assembly advising children how Park & Stride will work
- Parents Evening mention of Park & Stride
- All new parents to be made aware of school’s expectations around parking
- Potential for walking bus or teachers to accompany children from chosen parking places, to school
- Regular prizes or promotional work (especially in winter and beginning of term) so that parents are aware or remember campaign is essential.
- Promote the sociable aspect of walking together with other parents

Additional benefits for school – support for achieving Bronze or Silver STARS accreditation and activity for the school’s school travel plan

Grange Primary School

Background

Grange Primary School ran a campaign called “Turn it Down or a Big Frown” with a focus on anti-idling outside the school gates. A number of parents drive to school and, as the school is located on a narrow road, this causes problems with two-way traffic at picking up and dropping off times. Pluto class carried out an on-road activity, giving out leaflets and badges to parents in cars and asking those with their engines on to turn them off. A set of large letters spelling ‘Engines Off’ was placed on the school wall. Neptune class prepared the whole school assembly to promote their campaign and Pluto class wrote a letter to the council asking for Webb Street to be made one-way, making it safer for children trying to get into school.

Next Steps for School campaign

The campaign will need another push with children speaking to parents to ensure that the message is getting out there. A termly ‘engine check’ where children go out with new leaflets and check that cars are turning off their engines would be a good way to engage parents. This push should be supported by promotion through the school’s newsletter and in the school playground..

The school do not currently have an active eco-committee. It is recommended that this campaign be used as a fresh starting point for a new Eco Committee. In addition the school need to devise a school travel plan The request for a one-way street can form the core of this document and any associated initiatives.

The school should continue discussions around the one-way change of Webb Street, as this will improve the experience of children getting into school.

Potential additional campaign work

There is no viable alternative for parents to park anywhere near the school as the school is within a controlled parking zone, with residential and paid for parking. There are two potential options; running an active travel scheme, or working with council to relax parking regulations before school in a road not far from school. Both will require working with the local council.

Option 1 - Investigate running an **Active Travel scheme** (not driving to school gates)

The school should consider running a sustainable transport incentive scheme, such as WoW (www.livingstreets.org.uk/wow) which will reward those children who walk, cycle, use Park & Stride, scoot or catch the bus to get to school. To make this a success the following is suggested:

- Decide on the rules for participation, make sure to include those families that park and stride
- Hold an assembly so that all the children know what to do and what they will get for participating
- Hold a big launch event, with prizes, to celebrate launching the scheme at the school.
- Give children responsibility for policing this and make sure that they are strict
- Monthly prizes and inter-class competitions, as well as prizes for adults at least once a term
- Promotions should take place regularly, in school newsletter, in playground, with people still driving to school gates.

Option 2 – ask council to **Relax parking restrictions on Pages Walk** (from 8.30am to 9am)

This option will require some work with the local council, as a traffic management order will need to be created changing the parking conditions. It is recommended that this take place on Pages Walk, as this is near to the school, but not directly outside and allows an off-road walk. The following is suggested:

- Approach council to see if parking restrictions can be changed to start from 9am on Pages Walk - A letter could be written by the children making the case for changes
- Once in place, promote as an alternative to parents parking on Webb Street
- Invite Smart Car to enforce parking restrictions on Webb Street – do advise parents that parking enforcement is imminent
- Send letter home to parents stating where they can park, that places are limited, and not to park on Webb Street – include map
- Hold a launch event, including a walk from the site to the school
- Children who catch parents parking outside can direct parents to the alternative arrangements

Additional benefits for school – support for achieving Bronze or Silver STARS accreditation and an activity for the school's school travel plan