

Schools Cleaner Air Zones Case Study: St Cuthbert with St Matthias Primary School

St Cuthbert with St Matthias Primary School was invited to participate in the Schools Cleaner Air Zones Project as they were identified as a school within 150 metres of a busy major road with elevated levels of NO₂ and PM₁₀.

St Cuthbert with St Matthias Primary School is located in the south of the Royal Borough of Kensington and Chelsea directly adjacent to the Warwick Road. The Warwick Road is one of the busiest and most congested roads in the Borough and has been identified as an area that has high background levels of NO₂ and PM₁₀ pollution. These elevated concentrations of NO₂ and particulate material originate primarily from road transport sources.

The project was tailored to the needs of the school who were interested in further greening and landscaping within the school environment and a project that would combine the subject areas of art and science.

Green infrastructure was installed to the boundary wall along the Warwick Road. A planter bed to the rear playground area was extended so that it could also be used for future air quality and horticulture lessons to ensure a continued legacy of air quality teaching within the school.



Before Green Infrastructure installation

After Green Infrastructure Installation

A temporary air quality monitoring station was also installed into the school comprising of two NO₂ analysers and two PM₁₀ analysers. The analysers have provided concentration data for NO₂ and PM₁₀ on the road side of the green screen and the playground side of the green screen installation. This has allowed for a comparative study to be undertaken to assess how effective the green screen has been in reducing the concentration of NO₂ and PM in the school playground environment. The monitoring so far has shown early indications that the concentrations of NO₂ and PM on the playground side of the green screen are markedly lower than concentrations on the road side of the green screen.



An air quality education programme was also designed and delivered to year 5 and 6 pupils within the school in conjunction with the installation of the green infrastructure and air quality monitoring station. During the project year 5 and 6 pupils mapped their lowest pollution routes to school, created images for no idling engine posters and created images, scripted and produced an animation/film to report on the lessons learnt from the air quality teaching programme. The teaching programme ended with Year 5 and 6 pupils hosting a school assembly event to the rest of the school to play their animation/film and to report about the air quality project and reasons for the green screen installation and monitoring station.

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