Scottish Air Quality Database and Website Annual Seminar
Secondary Schools Pilot
26th March 2014

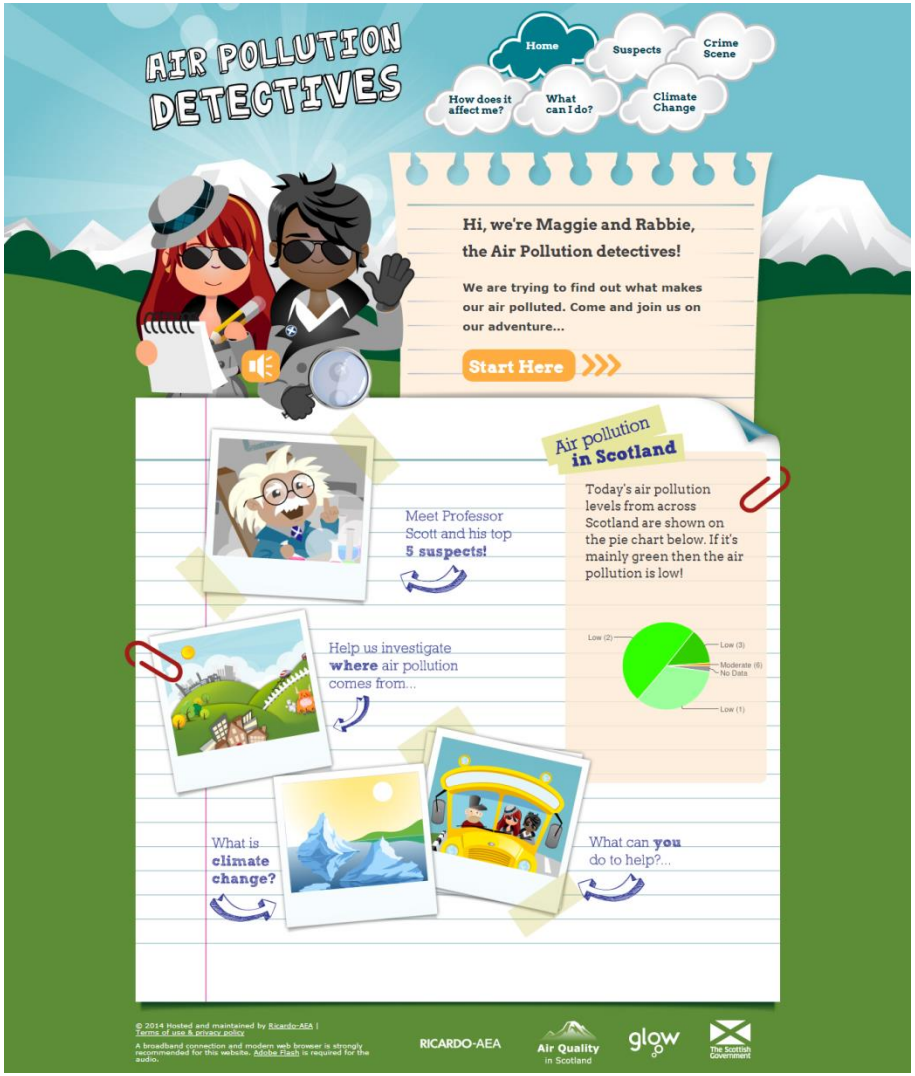
Tell you about…

- Update on Children's Pages

- New Secondary Schools Project

The Air Pollution Detectives

- The Air Pollution Detectives children's pages were launched in 2011
- Aimed to provide an introduction to the topic of air pollution to an audience of 8-11 year olds.
- Steady increase in traffic visiting the Air Pollution Detectives.
- Pages being enhanced….

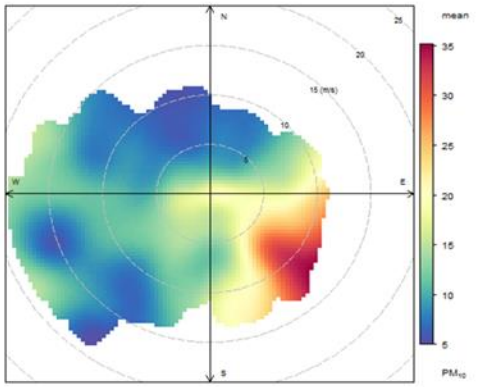


Air Pollution Detectives

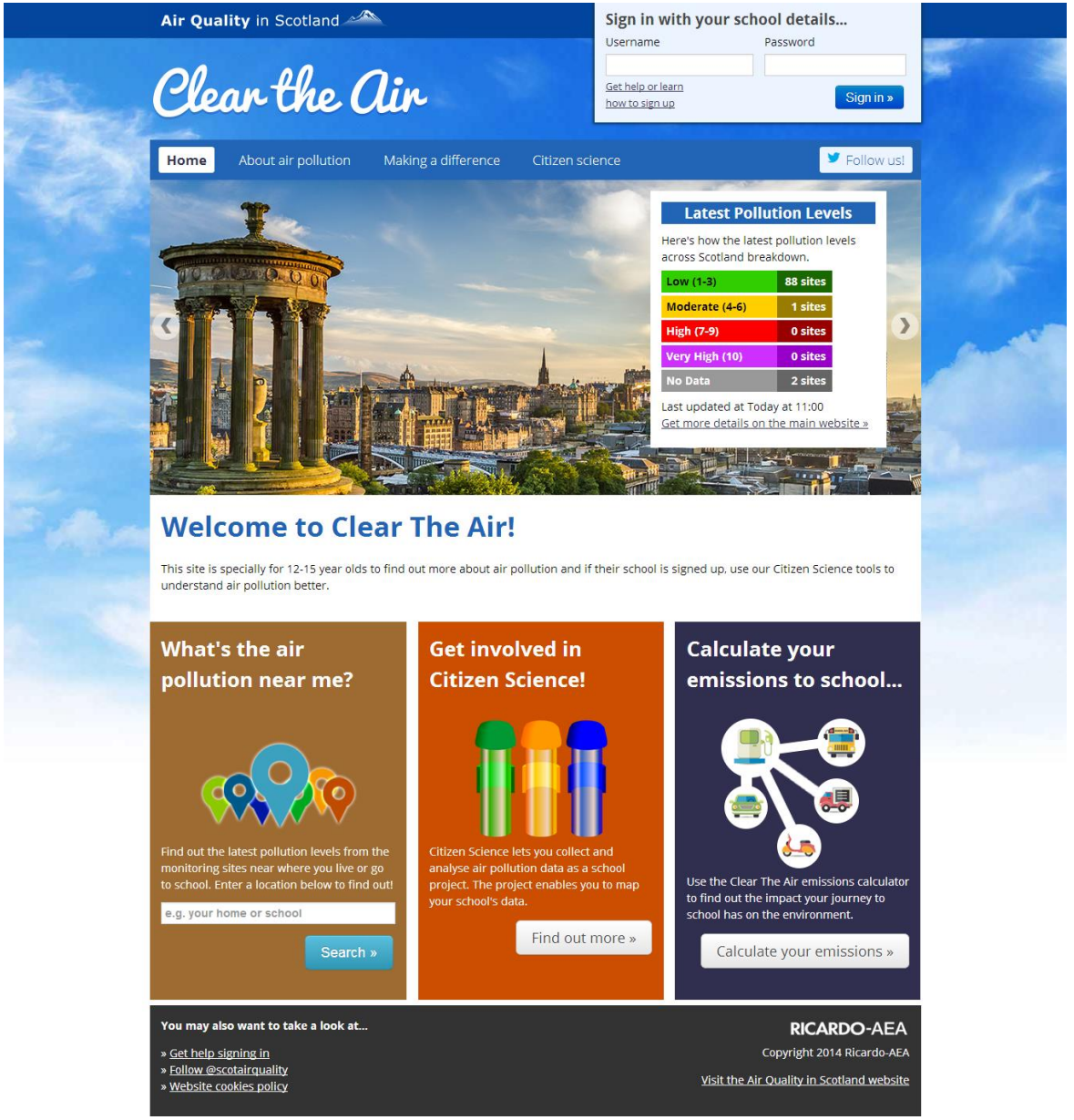
- Updated the pool of questions at the end of each quiz section.
- Refreshed links page to ensure the best and most up to date resources are provided to users in search of further information about related topics.
- Development and provision of Teachers' notes to accompany the Air Pollution Detectives

Secondary Schools Webpages

- Air pollution pages for secondary school age pupils
- Target age: 12-15
- Pages will provide a learning repository:
  - Range of background information on air pollution
    - Pollutants,
    - Sources,
    - Impacts, and,
    - Actions.
  - With a coordinated citizen science and education project supported by training videos.



Secondary Schools Webpages



Welcome to Clear The Air!

This site is specially for 12-15 year olds to find out more about air pollution and if their school is signed up, use our Citizen Science tools to understand air pollution better.

What's the air pollution near me?

Find out the latest pollution levels from the monitoring sites near where you live or go to school. Enter a location below to find out!

e.g. your home or school

Search »

Get involved in Citizen Science!

Citizen Science lets you collect and analyse air pollution data as a school project. The project enables you to map your school's data.

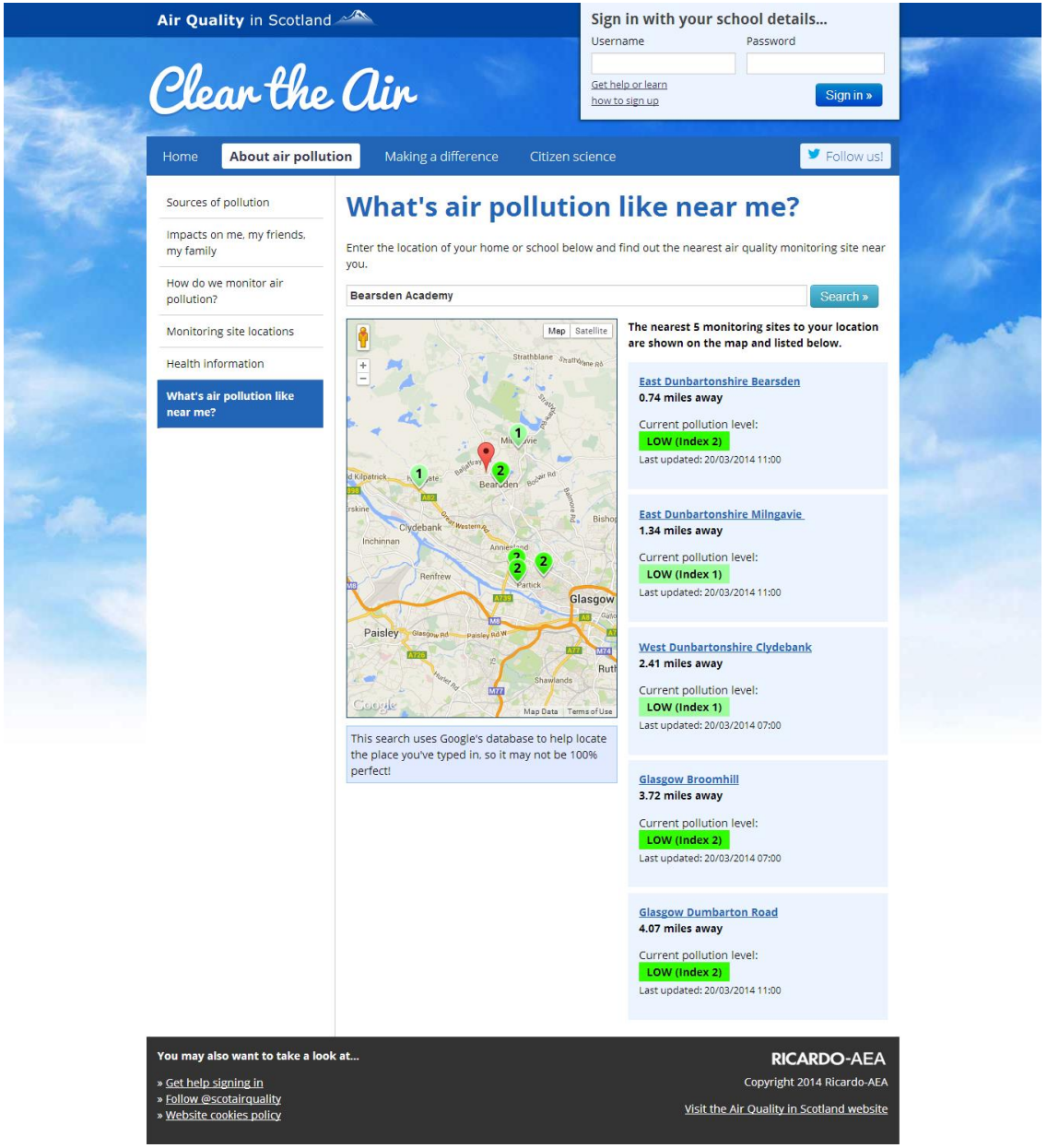
Find out more »

Calculate your emissions to school...

Use the Clear The Air emissions calculator to find out the impact your journey to school has on the environment.

Calculate your emissions »

Secondary Schools Pages

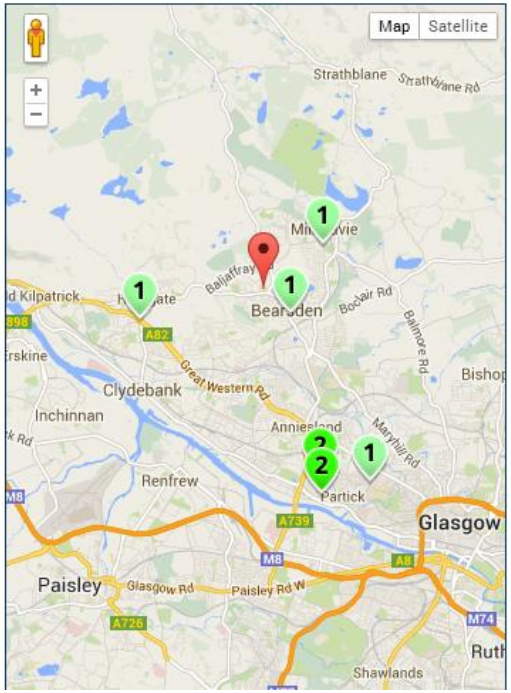


Sources of pollution
Impacts on me, my friends, my family
How do we monitor air pollution?
Monitoring site locations
Health information
What's air pollution like near me?

What's air pollution like near me?

Enter the location of your home or school below and find out the nearest air quality monitoring site near you.

Bearsden Academy Search »



The nearest 5 monitoring sites to your location are shown on the map and listed below.

East Dunbartonshire Bearsden
0.74 miles away

Current pollution level:
LOW (Index 1)
Last updated: 20/03/2014 14:00

East Dunbartonshire Milngavie
1.34 miles away

Current pollution level:
LOW (Index 1)
Last updated: 20/03/2014 14:00

West Dunbartonshire Clydebank
2.41 miles away

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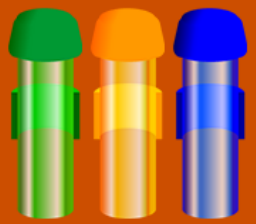

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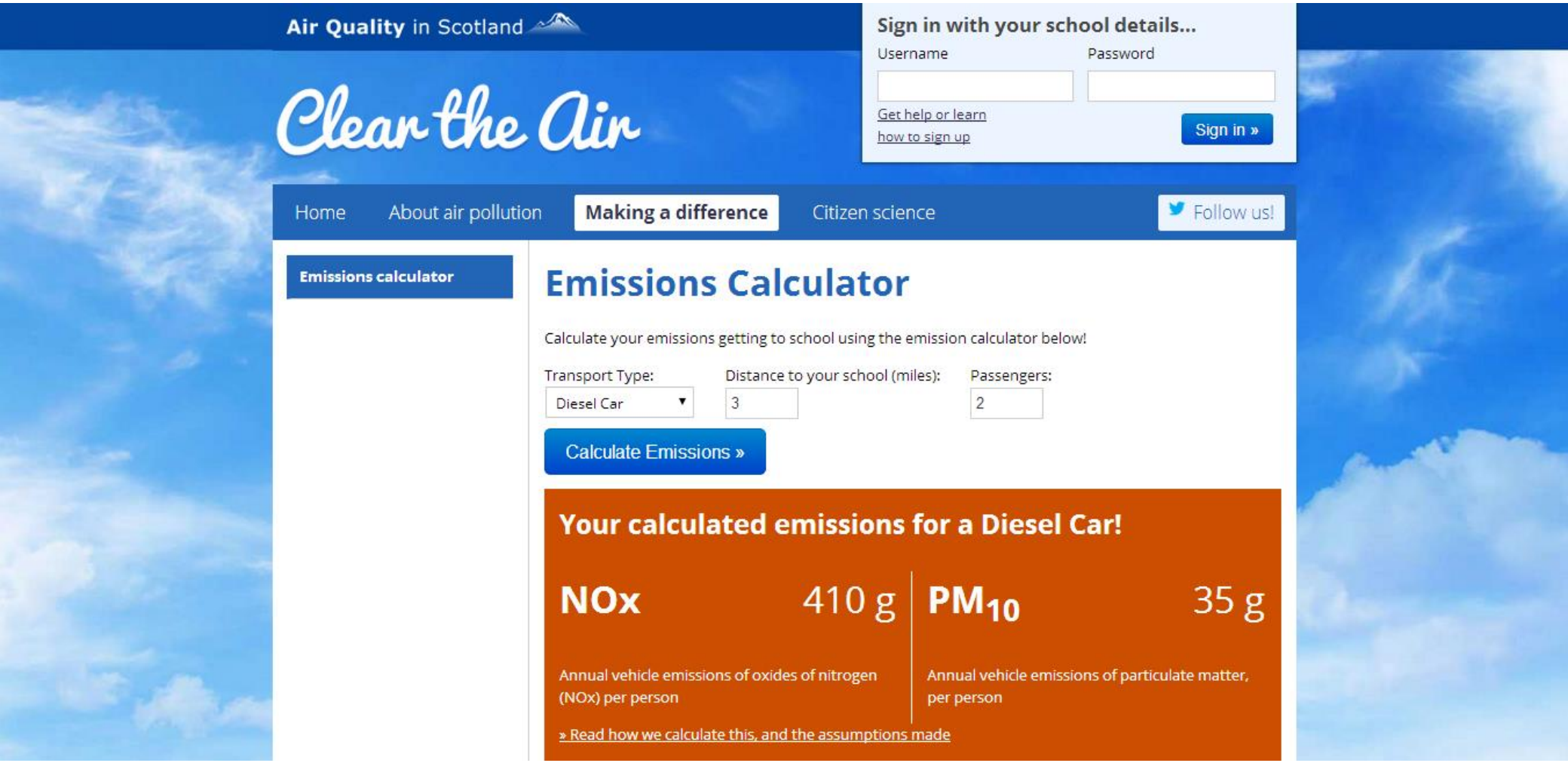
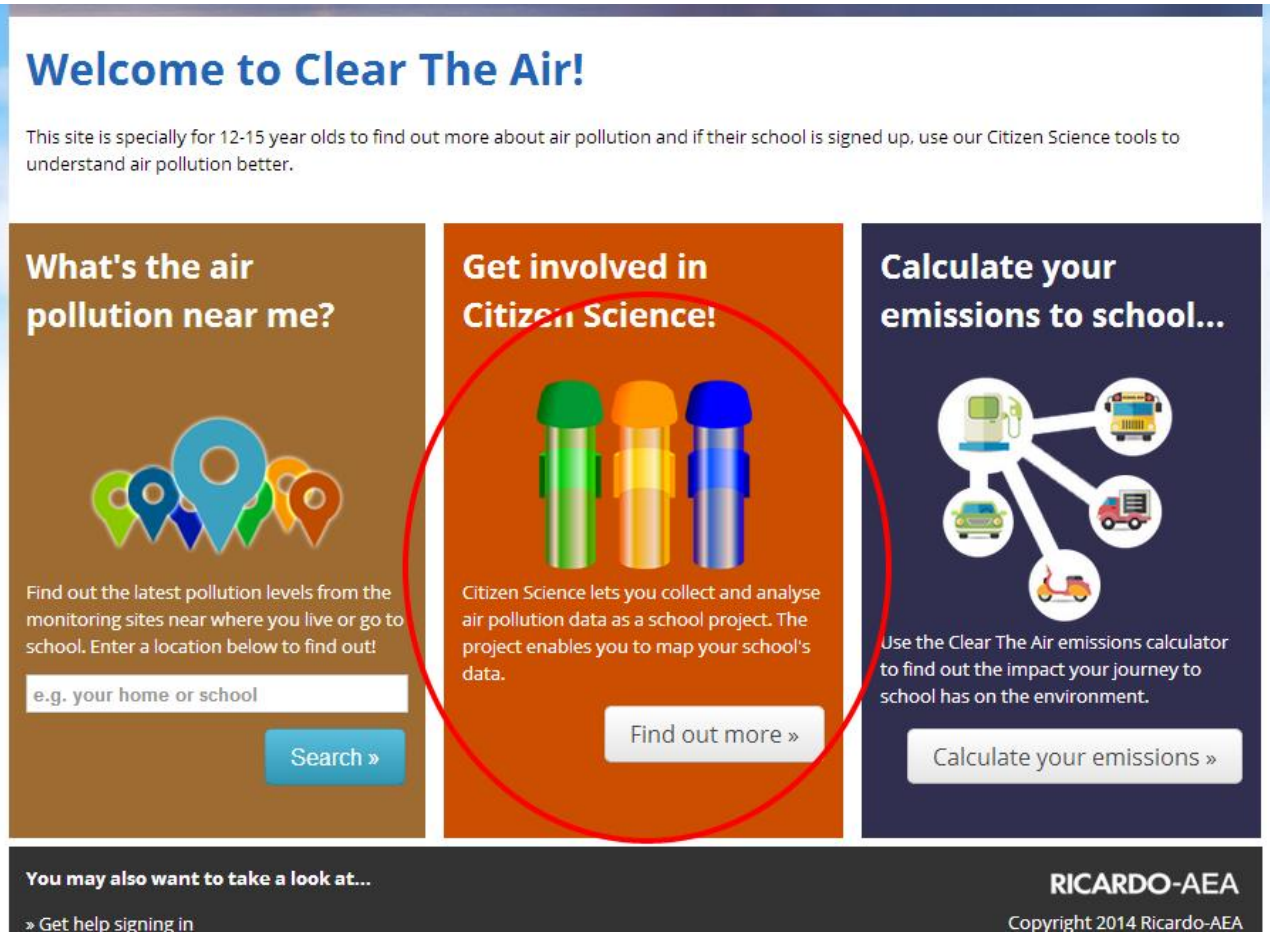


Citizen Science



Secondary Schools Pilot – Aims

RICARDO-AEA

To develop a programme to:

- Raise awareness of air pollution within secondary school age pupils;
- Provide ‘hands on’ experience of air quality monitoring and assessment;
- Develop interests and awareness in science and technology;
- Encourage behaviour change – “what can I do?”

Approach

1. Develop an air quality educational programme in partnership with a pilot school and supporting local authority

2. Provide training on air quality, monitoring, impact and linking to sustainable actions

3. Develop webpages providing information on air quality, emissions, health impact, sustainable travel options (including emissions calculator), and a research exercise.

Pilot scheme

Undertake short-term monitoring using diffusion tubes to observe changes in NO_2 concentrations at various locations around the school. Possible other short term monitoring techniques to measure during the 'school run period' and 'other times' to demonstrate the potential impact of road traffic;

Provide diffusion tubes to the students with instructions on how they should be deployed at their homes and considering distance to nearest road etc;

Collect and analyse samplers before getting the students to input the data into a test data-entry webpage and interpreting the data analysis tools including those on the Scottish Air Quality Database;

Undertake an interpretation and conclusions session with students to encourage them to work out what factors may be influencing the concentrations recorded.

Pilot Scheme

RICARDO-AEA

- Two schools involved in the pilot scheme
- One in East Dunbartonshire and one in South Lanarkshire
- Two Different Groups
- Mixed ability 1st year group “Litter Busters”
- 2nd year Chemistry Class – mixed ability

RICARDO-AEA

What is air pollution

What are the main pollutants

What are Pollution Sources

Impacts of air pollution on both the environment and health

Pilot scheme – Session 2

RICARDO-AEA

How to Monitor Air Quality

Overview of Automatic Monitoring

Overview of Non-Automatic Monitoring

Introduction to Monitoring Study

Pilot scheme – Session 3

How to deploy the diffusion tubes

Provision of hand-outs

Carry out monitoring study around school.

Provide diffusion tubes for home study

Pilot scheme – Session 4

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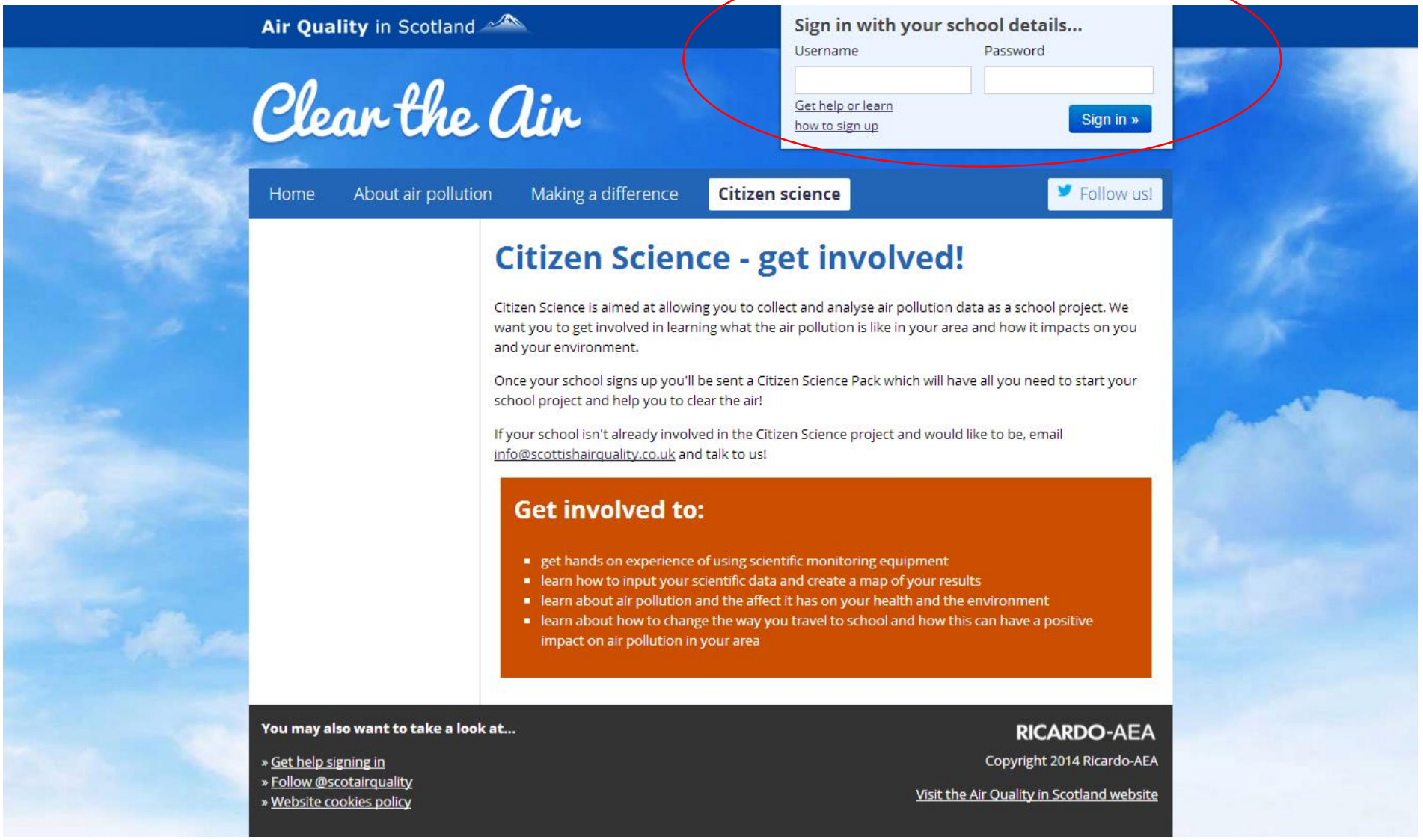
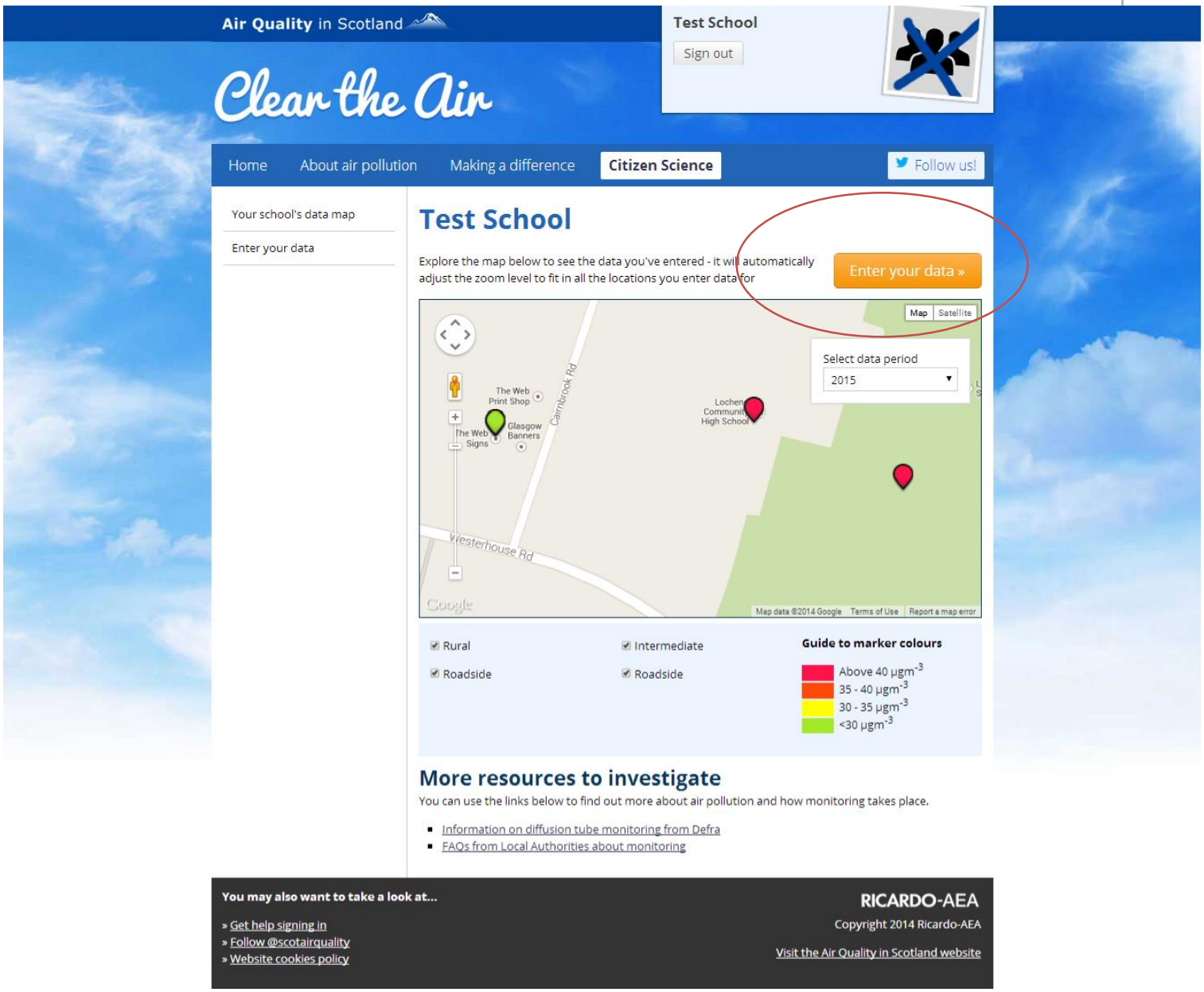
Follow up on monitoring study

Demonstration on data input of results

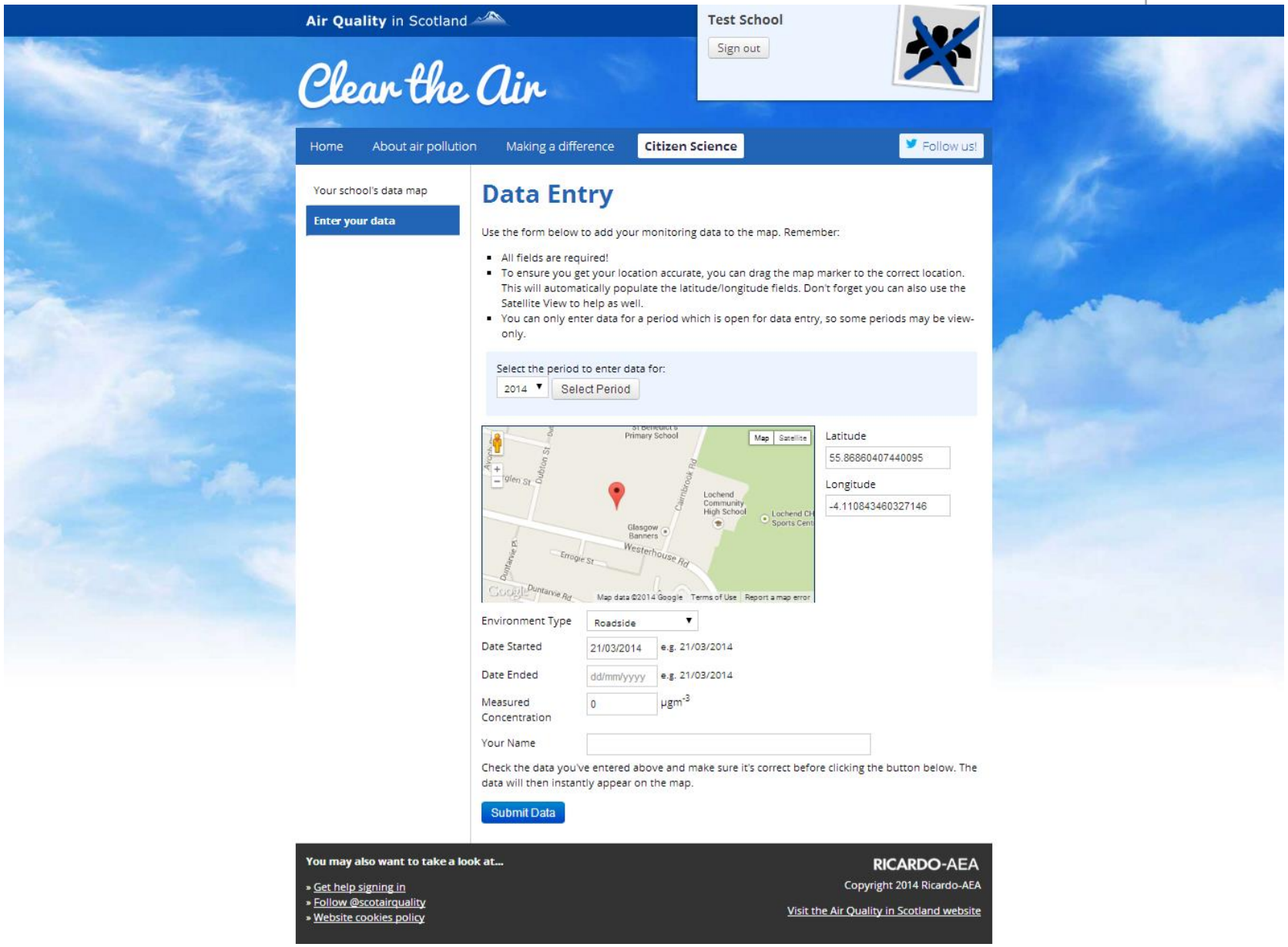
Facilitate discussion on the results.



Pilot scheme – Data Entry



Data Entry



Data Entry

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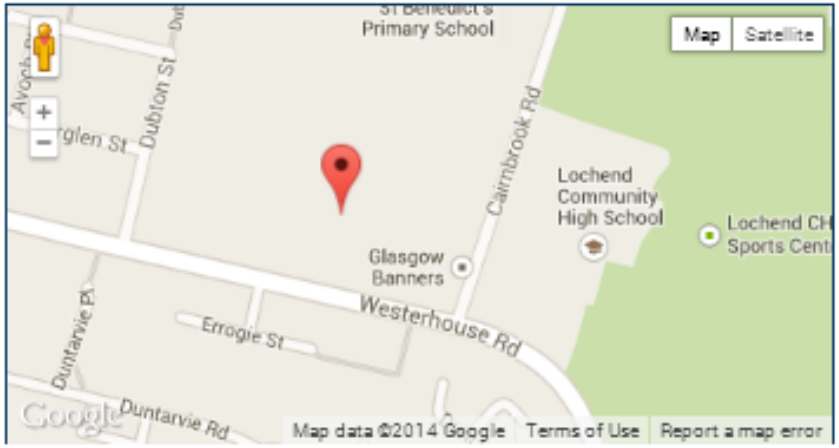
Select the period to enter data for:

2014 ▼ Select Period



Latitude

55.86860407440095

Longitude

-4.110843460327146

Environment Type: Roadside ▼

Date Started: 21/03/2014 e.g. 21/03/2014

Date Ended: dd/mm/yyyy e.g. 21/03/2014

Measured Concentration: 0 μgm^{-3}

Your Name:

Check the data you've entered above and make sure it's correct before clicking the button belo
data will then instantly appear on the map.

Submit Data

Pilot scheme

- Review and feedback session;
- Refinement;
- Development of supporting webinar(s);
- Development of a programme that could be rolled out nationally;

Thanks for listening.

Jennifer Simpson
Ricardo-AEA Ltd
18 Blythswood Square
Glasgow

T: +44 (0)1235753346
E: Jennifer.simpson@ricardo-aea.com
W: www.ricardo-aea.com