

2011-2012 Final Report

To The Climate Challenge Fund



Eco Drama's Magic Van Tour



Eco Drama CCF Reference - 1034



I learnt what global warming means – Danielle, age 9

I understand it's good to reduce electricity to help save the planet – P6 pupil

Eco Drama has broadened my mind to other alternatives to oil – S1 pupil

This workshop made me think of caring about where we are and how we live – S1 pupil

Every little change to your day to day life can count to a lower carbon footprint – S2 pupil

If things get better I'll know I was a part of it – Ellie, S1

It made me think about where I get my apples from & if I've ever tasted a Scottish apple - Zoe, P7

Before I watched the show I thought bees were pests but then I realised without them we wouldn't have apples – Shaun, age 9

Every small change will count in the long run & I hope I can inspire people to do the same -S2 pupil

It made me think about the apples I choose in the shop – Francesca, age 9

We need more orchards in Scotland – Cara, age 11

Drama is a great way for the children to learn about Eco topics

The children are enjoying a fantastic performance and learning

It was entertaining and captured their interest from the very start

The topic/ language wasn't too hard and it was familiar to them

An excellent performance - the children (and teachers) loved every minute

I really enjoyed the dynamic, fast paced approach

The info was clear and easily absorbed - educational for adults and children

Leader of the workshop was very enthusiastic – pupils loved this

Well organised and informative – high fun factor

Links very well to the Eco Schools programme

...a delicious morsel of story-telling...an excellent way to inspire learning and teaching about our connection to food...and a treat for anyone working on the Eco Schools 'Food and the Environment' topic - Eve Keepax, Policy Officer (Food and the Environment), Eco Schools Scotland

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What We Set Out To Do

The overall aim of *'The Magic Van Tour'* was to reduce carbon emissions through behavioural change stimulated by innovative education and raising awareness. The programme of educational shows and workshops provided were designed to help pupil's achieve this at school and home.

The Main Outcomes were:

- 1) To increase the number of pupils actively partaking in the principles of Reduce, Reuse, Recycle, at school and at home

Through the *Recycling Heroes* workshop

- 2) To increase the number of pupils walking/ cycling to school more often
- 3) To increase the number of pupils using bus & train more often
- 4) To increase the number of pupils reducing energy at school & at home

Through the *Eco Gadgets* workshop
The Isle of Egg theatre show
The Oil of Life workshop

- 5) To re-connect young people with where their food comes from
- 6) To increase awareness & understanding about food production and its effect on the environment
- 7) To increase the amount of pupil's/households eating more local, seasonal food

Through *The Forgotten Orchard* theatre show

- 8) To reduce emissions of the tour itself, we toured in 'The Magic Van' a vehicle run on reclaimed vegetable oil, which reduces CO₂ emissions by 85%.

The Targets we set ourselves were:

Travel	A 2% increase in pupils walking and cycling to school on more than one day per week
Energy	A 10% increase in the number of pupils taking daily measures to reduce energy
Waste	A 10% increase in the number of pupils who reduce, reuse and recycle their waste on a daily basis



Headline Achievements

- ✓ **Eco Drama Reached 44 Schools, 5,222 Pupils & their Teachers**
- ✓ **Brilliant Verbal & Written Feedback**
- ✓ **Teachers Are Learning Too**
- ✓ **Children & Young People Remember the Message**
- ✓ **High Demand for Primary Workshops**
- ✓ **Development of Secondary Eco Workshops**
- ✓ **Development of New Play about Food and the Environment**
- ✓ **Development of Secondary Teacher CPD Workshop**
- ✓ **Engagement of Different Learning Styles through Eco Drama**
- ✓ **Teacher Education Packs**
- ✓ **Successful Integration into the Curriculum for Excellence**



What We Did ~ the Outputs

From the period April 2011 – March 2012 Eco Drama delivered our awareness raising, educational workshops and shows to **34** schools in **West Dunbartonshire**, **1** school in **Inverness** and **9** schools in **Glasgow** reaching **5,222** pupils and their teachers:

- ✓ **17** primary schools in West Dunbartonshire received a total of **53** *Recycling Heroes* workshops reaching **1,242** pupils over **18** days
- ✓ **6** primary schools in West Dunbartonshire received a total **12** *Eco Gadgets* workshops reaching **282** pupils over **6** days
- ✓ **17** primary schools in West Dunbartonshire received total of **40** performances of *The Isle of Egg* theatre show reaching **1,983** pupils over **21** days
- ✓ We developed a **brand new workshop** programme for secondary schools titled *The Oil of Life*
- ✓ **4** secondary schools in West Dunbartonshire received *The Oil of Life* workshop programme reaching **296** pupils over **15** days
- ✓ **1** secondary school in Inverness received *The Oil of Life* workshop programme reaching **40** pupils in **1** day
- ✓ **6** teachers from West Dunbartonshire secondary schools attended a **CPD** session relating to *The Oil of Life* programme
- ✓ We devised and developed a **brand new play** for primary schools titled *The Forgotten Orchard*
- ✓ **9** primary schools in Glasgow received a total of **26** performances of *The Forgotten Orchard* theatre show reaching **1,379** pupils over **15** days
- ✓ We created **11 jobs** – **2** full time positions and **9** freelance positions



HOW WE DID IT ~ the Primary Schools ~ West Dunbartonshire

Out of 34 primary schools in West Dunbartonshire 30 requested to be involved in the project. This means we visited almost 90% of the primary schools in West Dunbartonshire.

All schools signed up to the project on the understanding that they were committing to a community based carbon reduction project and as such they agreed to the following 5 steps:

The 5 Steps

1) Initial Survey – Carbon Quiz Round 1

Each West Dunbartonshire primary school received a Carbon Quiz which was done with all pupils attending the Eco Drama show/workshop. The questions asked were geared to the show and workshop outcomes, and enabled us to gather baseline data about each class's behavioural habits before the visit. Teachers also received pre information about the show and workshops so they could prepare pupils for the visit.

2) Into Action

Each of the 30 primary schools received a **1 or (in the case of larger schools) 2 day visit** from Eco Drama, where we delivered the show and/ or workshops as requested.

3) Follow-Up Activity Packs

- Class teachers received a **Follow-up Activity Pack**, which they were asked to do within 1-2 months of our visit. The pack contained ideas for arts activities and revision tasks to help develop and continue class learning after the experience.
- All pupils taking part received a **badge** and **pocket sized information booklet** (recycling or energy/ transport). Participants of the *Recycling Heroes* workshop also received an Eco Drama canvas bag. We believe giving the pupils something tangible that they can carry around and take home will carry the message home and contribute to the behaviour change taking place.

4) Evaluations

These were emailed to teachers on the day of our visit. Pupils and teachers were asked to complete the **evaluation forms** and send them back to Eco Drama in order to monitor the project and make sure we were providing a service that was of high quality. It was stressed that it was their responsibility to the project to complete the activity packs and return evaluations within the stated timescales.

5) Final Survey – Carbon Quiz Round 2

Three months after our visit, the teachers of each class involved received an email prompting them to complete the Carbon Quiz Round 2. The questions were exactly the same as the initial survey, to allow us to compare and contrast findings and calculate what behavioural change had taken place since the visit.



Pupils at Highdykes Primary receiving their 'Recycling Hero' canvas bags at the end of their workshop



The 'Green Agent' and 'Recycling Hero' information booklets and badges awarded to all pupils

The 30 primary schools:

Aikenbar Primary School
Braehead Primary School
Clydemuir Primary School
Gartocharn Primary School
Goldenhill Primary School
Highdykes Primary School
Kilbowie Primary School
Knoxland Primary School
Linnvale Primary School
Our Lady of Loretto Primary School
St Joseph's Primary School
St Mary's Primary School
St Patrick's Primary School
St Ronan's Primary School
Whitecrook Primary School

Bonhill Primary School
Carleith Primary School
Edinbarnet Primary School
Gavinburn Primary School
Haldane Primary School
Jamestown Primary School
Kilpatrick SEN School
Ladyton Primary School
Our Holy Redeemer Primary School
St Eunan's Primary School
St Kessog's Primary School
St Michael's Primary School
St Peter's Primary School
St Stephen's Primary School
Cunard Behavioural Unit (at Whitecrook)



THE TOURING PROGRAMME ~ Primary Schools

Primary schools were able to select from a programme of workshops and/or play the activity that would suit their school. Larger schools had the option to select a 2 day visit. Exactly half of the schools we visited received 2 days.

The **Recycling Heroes workshop** is written around the principles of 'Reduce, Reuse and Recycle'. Through a fun and informative drama workshop led by the fearless 'Bag Girl', pupils are encouraged to find their own inner recycling hero and rid the town of the menacing Rubbish Monsters!

Curriculum for Excellence links include: Social Studies ~ *People, Place & Environment*, Science ~ *Planet Earth & Materials*, Expressive Arts ~ *Drama*

Eco Schools links: Waste Minimisation ~ Litter ~ Sustaining our World

Main CCF Outcomes: To increase the number of pupils actively partaking in the principles of Reduce, Reuse and Recycle, at school and at home

"Bag Girl got the children really motivated"

Class teacher, Our Lady of Loretto Primary on *Recycling Heroes*

The **Eco Gadgets workshop** explores the themes of sustainability, specifically relating to **transport** and **energy**. Pupils meet Hope, a Green Agent who will show them the latest eco gadgets, all of which could help solve our global warming problem . . . a **solar windmill**, a **hydrogen car**, a **boat run on candle wax**, a **magic van run on recycled chippy oil**; plus a **very special mystery gadget!** Using drama & role play, pupils work with Hope to convince people that these inventions really could help save our planet, becoming top Green Agents for the environment in the process.

Curriculum for Excellence links include: Social Studies ~ *People, Place & Environment*, Science – *Technologies & Energy*, Expressive Arts ~ *Drama*.

Eco Schools links: Transport, Energy, Sustaining our World.

Main CCF Outcomes: To increase the number of pupils reducing energy home & walking/ cycling to school



"Well planned activities using excellent resources. 'Hope' motivated the children and held their interest for the whole of the workshop – great!" – P5/6 teacher on Eco Gadgets

The Isle of Egg play is an ecological fable inspired by Eigg, the beautiful, self-sustainable island off the west coast of Scotland. Through thought-provoking, interactive storytelling, some eco gadgets, humorous characters & live music, Eco Drama brings to life an uplifting story about climate change, positive thinking and the power of community spirit.

Curriculum for Excellence links include: Social Studies ~ People, Place & Environment, Science – Technologies & Energy, Expressive Arts ~ Drama

Eco Schools links: Transport, Energy, Sustaining our World

Main CCF Outcomes: To increase the number of pupils reducing energy at school & at home & walking/ cycling to school

“The cast were very enthusiastic and ensured all of the children were fully involved. Learning was fun.”
Sinead Connolly, class teacher, Edinbarnet Primary on *The Isle of Egg*



The Facilitators ~ One workshop leader and two actors were responsible for the delivery of the primary programme across West Dunbartonshire schools.

The *Recycling Heroes* and *Eco Gadgets* workshops were led by Georgina Pearson, a talented and energetic workshop leader with a passion for engaging children and young people in the subject matter at hand.

The Isle of Egg captured the talents of 2 versatile performer/ musicians, Alistair Edwards and Eilidh MacAskill. Both utilised their comedic skills bringing to life many humorous characters.

Georgina, Alistair and Eilidh all previously worked on The 2010 *Magic Van Tour* of Glasgow schools and once again brought the same energy, enthusiasm and commitment to the 2011 *Magic Van Tour*.

HOW WE DID IT ~ the Secondary Schools ~ West Dunbartonshire

Of the 5 secondary schools in West Dunbartonshire, 4 signed up to be involved in *'The Oil of Life'* pilot workshop project. *The Oil of Life* workshops were designed as a series of 3 consecutive workshops to be delivered to S1 pupils over a 3 week period.

Once again schools signed up on the understanding that they were committing to a community carbon reduction project, and the following 5 steps:

The 5 Steps

1) *What Is My Carbon Footprint Questionnaire – Round 1*

During the first workshop each pupil completed a *'What Is My Carbon Footprint?'* questionnaire. This double sided questionnaire was more detailed than the primary school carbon quiz and asked questions covering the topics of Energy Saving, Waste Minimisation, Travel and Food. The questions asked were geared to the workshop outcomes and enabled us to gather baseline data about each pupil's current behavioural habits.

2) *The Pledges - A Promise To Myself*

During the third workshop each pupil was asked to make a pledge indicating one or more behaviour changes that they promised themselves they would make by a date in the future (approx. 3 months later). The pledges were signed and collected in by the workshop leaders and sealed in an envelope. The pledges were mailed back to the schools 3 months after the workshop programme completed for the pupils to re-open with the aim that the behaviour change had taken place.

3) *Evaluations*

Pupils and teachers were asked to complete an evaluation form during the third session to monitor the content and standard of the workshops, and also to gauge how motivated pupil's felt towards making changes in their day to day lives following the workshops.

4) *What Is My Carbon Footprint Questionnaire – Round 2*

Three months after our visit, the lead teachers were asked to lead the second carbon footprint questionnaire with the pupils. The questions were exactly the same as the initial questionnaire, to allow us to compare and contrast findings and calculate what behavioural change had taken place since the visit.

5) *The CPD session*

Teachers from all West Dunbartonshire Secondary Schools were invited to attend a creative CPD session. Within the practical 90 minute session the workshop leaders explored with

participants the potential of integrating drama within the curriculum as an interactive and effective way of learning. Teacher from all disciplines were invited to attend.

The workshop leaders demonstrated some techniques used within *'The Oil of Life'* and showed how these could be made relevant across the curriculum.

The 4 secondary schools

Clydebank High School

Our Lady & St Patrick's High School

St Peter the Apostle High School

Vale of Leven Academy



"I really enjoyed the workshop and our workshop leader made it all very fun and interesting and when I go home I will begin to change my habits to be more eco-friendly. I would like to do it all again" – Matthew, S1 pupil, Clydebank High on *'The Oil of Life'*

THE WORKSHOP PROGRAMME ~ Secondary Schools



The Oil of Life Challenging learners aged 11-13 to rethink a sustainable future, through role-play, drama and debate.

The Oil of Life is a series of 3 workshops delivered to S1 pupils. Each workshop runs at 1 hour and 50 minutes across a double period.

Curriculum for Excellence links include: Global Citizenship/ Sustainable Development, Social studies ~ People, Place and Environment

Eco Schools links: Transport, Energy, Sustaining our World.

Main CCF Outcomes: To increase the number of pupils reducing energy at school & at home & walking/ cycling to school. To increase the number of pupils actively partaking in the principles of Reduce, Reuse, Recycle, at school and at home

Learning Outcomes

- To get pupils thinking about how much non-renewable energy resources we use & rely on in everyday life and the effect that this has on our environment
- To understand the difference between renewable & non-renewable energy
- To understand the value of oil
- To develop a greater sense of social responsibility
- To develop a language for talking about ecology and the environment

Overview of Workshops

Workshop 1: It's 2011 and new oil has been discovered in Loch Lomond. The Oil company 'Slick Business' wants to move into the area and drill. The monetary benefits for the local area are described and the locals enticed towards a future that will bring them more money and a better quality of life. However, pupils soon learn that when it comes to oil, everything is not as it seems . . .

Workshop 2: It is 2017. Oil has peaked and is in rapid decline. Through drama, debate and role-play, pupils investigate peak oil, climate change and the effects on everyday people.

Workshop 3: Having had a glimpse of a future world, pupils are brought back to present day Scotland, where they are placed in role as town planners. They are given the task of designing a new eco town; in doing so becoming ambassadors for the environment and leading us into a sustainable future that can function without oil.

The CPD Session was held in March 2012 at St Peter the Apostle High School. The 90 minute session was attended by 6 teachers from West Dunbartonshire secondaries.

Title of Session: **Creative Learning CPD Workshop**

Exploring creative techniques from Eco Drama's interactive secondary school workshop 'The Oil of Life'

The session enabled secondary teachers of any subject to explore the dramatic conventions used in The Oil of Life workshops, and to explore how they might use these techniques within their own teaching. Overall, the session went very well, with all teachers finding the session **very useful**, and pledging that they would try some of the techniques in their teaching practice.

'I got new creative ideas for my teaching – thanks very much!'

Emma McPherson, Chemistry

'Lots of active learning ideas I can adapt to use easily – the session was great😊'

Alyson, Chemistry

'Lots more teaching tips for active and visual learners – I'd like to try all of them and Teacher in Role I will definitely be exploring. Great – relevant, reflective, relaxing'

Pauline Bowie, Enterprise & Technology

'Very good to see CPD offered in this area as none available before'

Marie, Modern Studies

'Lots of new ideas for the classroom' Heather, English

The Facilitators ~ Two workshop leaders were recruited for the delivery of *The Oil of Life* secondary programme and CPD session across West Dunbartonshire secondary schools.

Jodie Wilkinson and Kevin Wratten are both experienced drama facilitators and practitioners working across many sectors including schools, theatres and community settings. Both brought with them a passion for the subject matter and an enthusiasm for educating in a fun and informative style.

Jodie and Kevin were actively involved in the development and creation of the workshops alongside Emily Reid, Director, who also attended the event.

The 2011 *Magic Van Tour* marks the first time Jodie and Kevin have worked for Eco Drama. They were recruited following an interview and audition process that demonstrated them to be the clear stand out candidates.

HOW WE DID IT ~ the Primary Schools ~ Glasgow



The Forgotten Orchard pilot tour

In 2011/12 we developed a brand new theatre show for upper primary classes (P4-7) focussing on the Eco Schools Scotland *Food and the Environment* topic. Market research carried out in early 2011 following the 2010 Magic Van Tour identified this topic as the area teachers were most interested in exploring in more depth. *The Forgotten Orchard* was devised to broaden our range which previously only offered one play; *The Isle of Egg*.

10 enthusiastic Glasgow primary schools from the 2010 *Magic Van Tour* were selected as the audience for the pilot tour of *The Forgotten Orchard* in February/ March 2012.

The Process - Following the recruitment of 2 deviser/performers (Stewart Ennis and Caroline Mathison), two development weeks were scheduled in November and December to allow the performers and Director Emily Reid to collaborate together to brainstorm and devise ideas and research found around the 'Food and the Environment' topic.

Following the Christmas break the performers and Emily began a full time 5 week rehearsal process that took them through to mid-February. During this period the final script was created, polished and rehearsed and the 2 characters of *Katy* and *Grandad* came alive.

Set designer, Claire Halleran worked to create the overall look of the piece (set design, props and costume).

Ahead of the pilot tour, a first performance of *The Forgotten Orchard* was staged at Broomhill Primary for their out of school club to gauge audience reactions and gain important feedback from the target audience (8-11 year olds) before the final rehearsal day.

The Glasgow primary schools

Bankhead Primary School
Corpus Christi Primary School
St Albert's Primary School
St Conval's Primary School
Wallacewell Primary School

Balornock Primary School
Shawlands Primary School
St Clare's Primary School
St Mirin's Primary School

***The Forgotten Orchard* pilot tour ~ Glasgow Primary Schools**

The Forgotten Orchard is a funny and emotional tale that uses the inspirational apple to ask questions about the food we eat; where does our food come from, did it have to travel far, what does it taste like, and crucially, can we grow our own?

The story re-welcomes to our plate the charismatic Scottish apples of our heritage; Tam Montgomery, Scotch Dumpling, the local Glaswegian apple 'Clydeside' (to name but a few); bringing with it a local food message that is pertinent to our current times.

There has never been a better time to start growing, and tasting, our own food again, and what better food to start with than the apple!

Curriculum for Excellence links include: Social Studies ~ People, Place & Environment, Health & Wellbeing ~ Food & Health, Expressive Arts ~ Drama.

Eco Schools links: Food & the Environment ~ Sustaining our World ~ Bio Diversity

Main CCF Outcomes: Increasing awareness & understanding about food, locality & seasonality

The Forgotten Orchard Company ~ Two actors, a dramaturge and a designer were recruited to work on this production alongside the Director, Emily Reid.

Stewart Ennis and **Caroline Mathison** were cast following an individual audition and group workshop/ audition day. Both, experienced performers displayed the emotional connection to the subject matter and both are skilled devisers able to bring characters to life. Working alongside Emily Reid, Director the two actors were instrumental in developing *'The Forgotten Orchard'*.

Claire Halleran, a freelance designer with expertise in designing touring sets came on board to design the production. Claire was responsible for set design, prop sourcing and build and costumes for the performance.

Katrina Caldwell, an experienced dramaturge worked with Emily at her research & development stage, at the auditions, and also with the company to polish and edit the final script ensuring that the final piece produced was of the highest possible quality and met all the aims and objectives.



HOW WE DID IT ~ Management of the Project

The Full Time Core Staff ~ This project allowed Eco Drama to maintain a full time position for the Director and create the brand new position of Administrative Producer.

Emily Reid ~ Director and Founder of Eco Drama's main duties included:

- Advertising for and recruiting all new members of staff
- Training of all staff members
- Purchase and preparation of all materials for research & education packs
- Insurances, Disclosures and Staff wages
- Coordinating all freelance staff
- Development of *'The Oil of Life'* workshops and CPD session
- Arranging trial of *'The Oil of Life'* workshop
- Research, development and script preparation for *'The Forgotten Orchard'*
- Directing rehearsals of *'The Forgotten Orchard'* and preparing it for touring
- Creating an education resource pack for *'The Forgotten Orchard'*
- Progress and final report writing
- Liaising with and arranging board meetings
- Management of accounts

Claire Stewart ~ Administrative Producer's main duties included:

- Booking and creating schedules for all tours
- Liaising with teachers throughout the booking and delivery period of the project
- Ongoing tour management (pre reminder emails/calls and dealing with timetable issues)
- Issuing and chasing up evaluations from schools
- Dealing with day to day email and telephone enquiries from schools
- Booking rehearsal space
- Coordinating freelance staff
- Arranging trial of *'The Oil of Life'* workshop
- Preparing claim forms
- Website updates
- Data entry from evaluation forms and quizzes

The Director and Administrative Producer shared the duties of:

- Coordinating freelance staff
- Arranging trial of *'The Oil of Life'* workshop
- Disclosure checks
- Progress and Final Report writing

The Outcomes

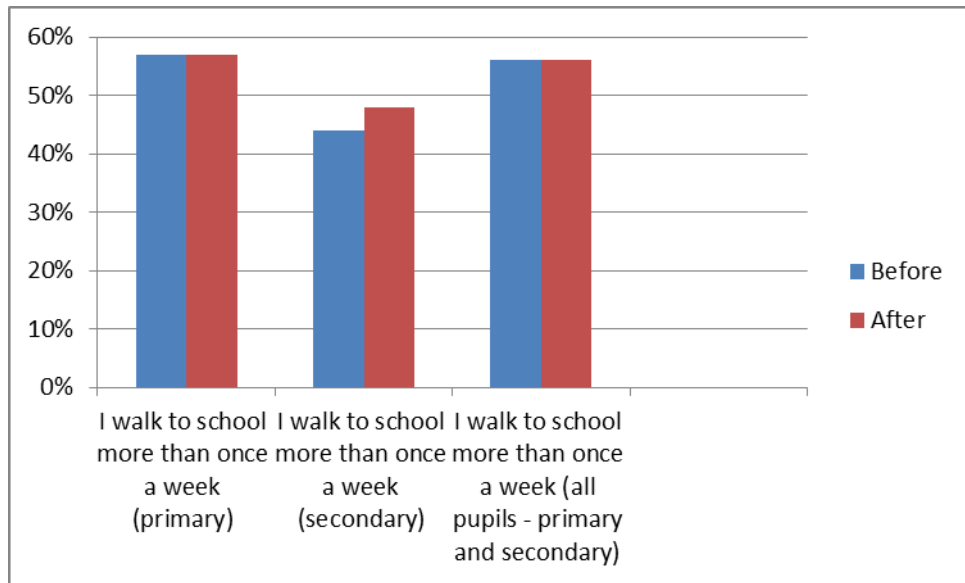
We monitored the outcomes in the following ways:

1. **Quantitative Evidence** ~ ‘Before and After’ Carbon Surveys logging behaviour patterns into our online carbon calculator relating to the main areas of Waste, Travel, and Energy.
2. **Qualitative Evidence** ~ Evaluation forms and word of mouth feedback received from pupils and teachers to monitor the success and impact of the project

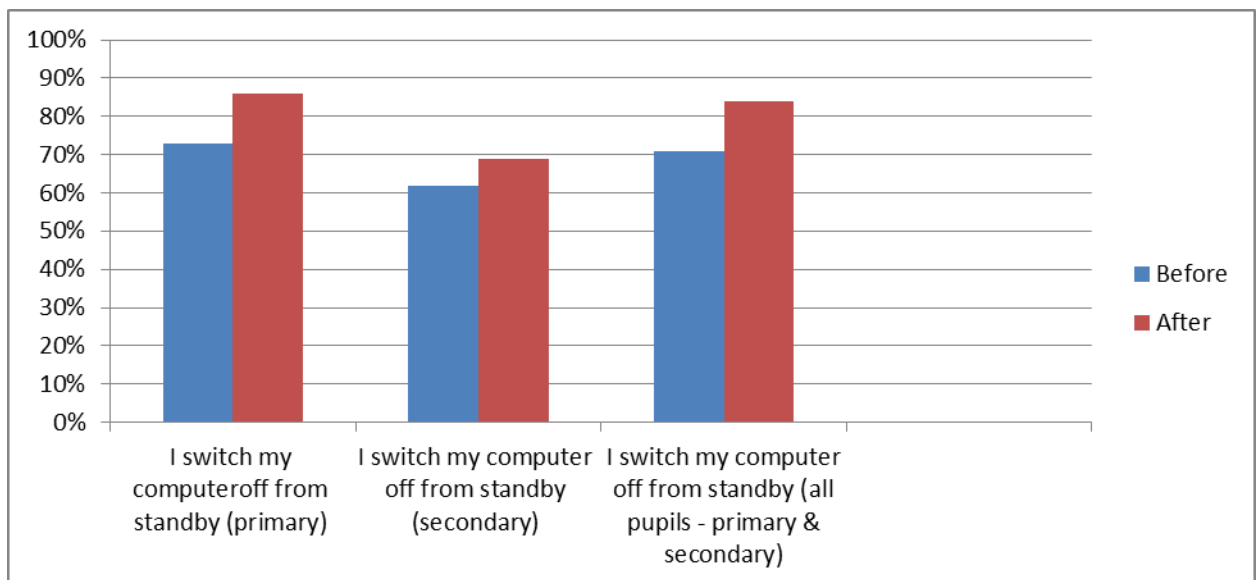
The CO2 Reductions ~ Executive Summary

	Aim	Baseline - CO2 being saved before our project	CO2 being saved after our project	CO2 Reduction
Travel Reductions	To increase the number of pupils walking and cycling to school on more than one day per week by 2%	45.09 tonnes	44.8 tonnes	- 0.29 tonnes
Energy Reductions	To increase the number of pupils taking daily measures to reduce energy by 10%	640.3 tonnes	886.64 tonnes	246.34 tonnes
Waste Reductions	To increase the number of pupils who reduce, reuse and recycle their waste on a daily basis by 10%	631.6 tonnes	934.27 tonnes	302.67 tonnes
Overall CO₂e Emissions Reduction				548.72 tonnes

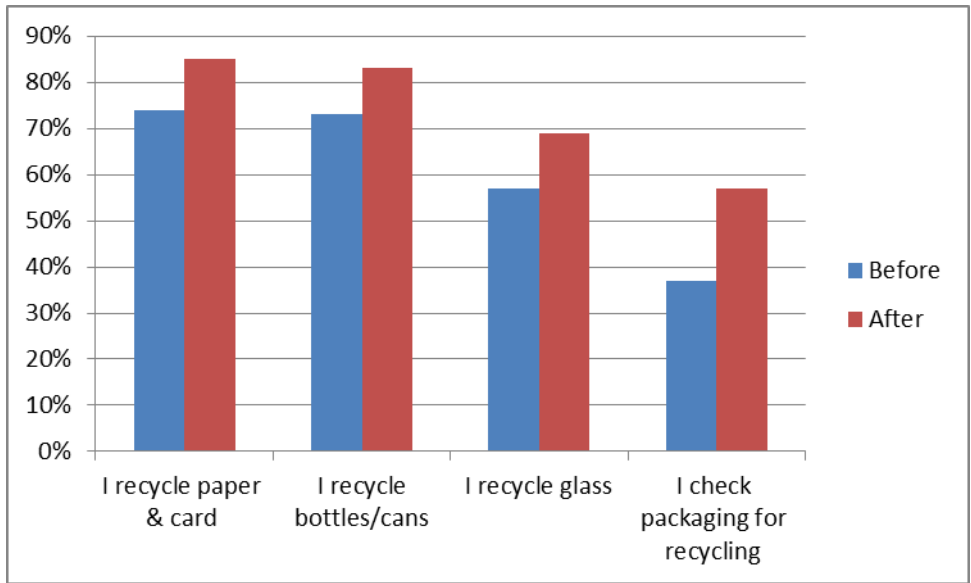
The Travel Savings



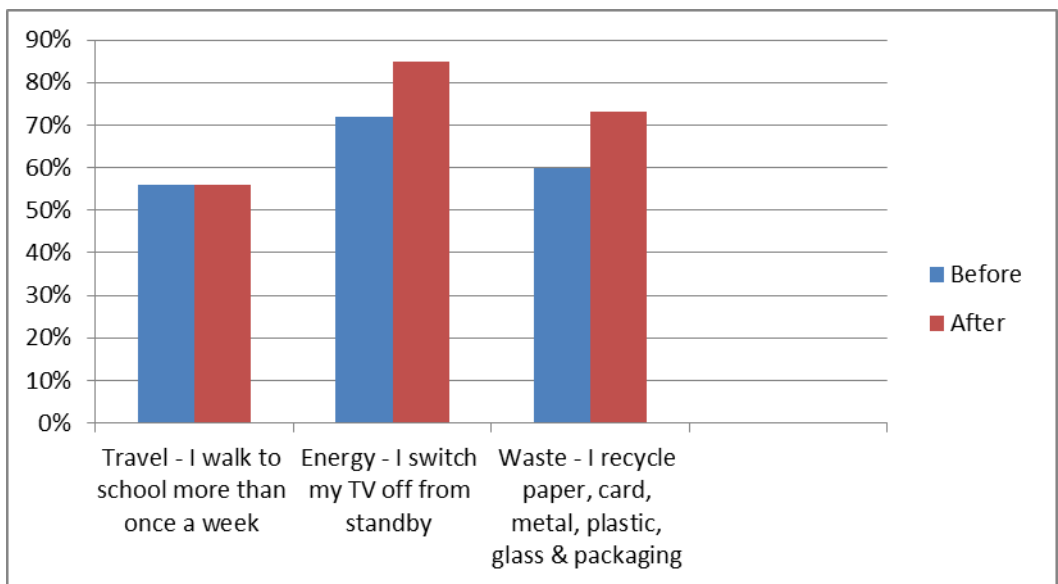
The Energy Savings



The Waste Savings



The Overall Savings



	Analysis of CO2 Data
Travel	<p>Primary pupils – there was a 0% increase in the number of pupils walking or cycling to school on more than one day per week</p> <p>Secondary pupils – there was a 4% increase in the number of pupils walking or cycling to school on more than one day per week</p> <p>The overall percentage of pupils walking or cycling to school on more than one day per week did not increase</p> <p><u>Facts to consider:</u></p> <ul style="list-style-type: none"> - There was a 64% return rate for Quiz Round 2. Had all pupils been accounted for it more likely that we would have made a 2% increase in the numbers of pupils taking measures to walk or cycle. - At the time of the first primary quiz it was summer or early autumn and the weather was fair. At the time of the second quiz it was late autumn or winter and we were experiencing particularly bad weather including high winds and rain. - Secondary pupils may have a greater ability to choose how they travel to school.
Energy	<p>We achieved a 9% increase in the number of pupils taking daily measures to reduce energy through the action of switching their computer off from standby.</p> <p><u>Facts to consider</u></p> <ul style="list-style-type: none"> - There was a 64% return rate for Quiz Round 2. Had all pupils been accounted for it is highly likely that we would have made a 10% (or higher) increase in the numbers of pupils taking daily measures to reduce energy. - Some pupils did not have a computer therefore we cannot analyse this particular behaviour in relation to CO2 reduction.
Waste	<p>We achieved a 13% increase in the number of pupils who reduce, reuse and recycle their waste on a daily basis.</p> <p><u>Facts to consider</u></p> <ul style="list-style-type: none"> - The actual increase could be higher had all pupils been accounted for in Round 2. There was a 62% return rate will Round 2.

Changed Attitudes and Awareness

Eco Drama's entire educational programme has raising awareness at its heart. The feedback gathered through the evaluation forms from pupils and teachers demonstrates that pupils are learning and being inspired and motivated to take responsibility for their actions and behaviours.

Verbal Feedback

Children would come up to the workshop leader or actors at the end saying what positive green action they were going to start doing as soon as they got home, and asking further questions after the plays & workshops, such as enquiring about how they can start growing their own fruit & vegetables. This verbal feedback is instant and allows us to witness that the child has not only processed their learning, they have gained a heightened awareness of the issues, are taking responsibility for their own actions, and are interested to pursue their education further.

Written Feedback

A sample of the feedback received via evaluation forms is included below. **Further feedback is included in the appendix.**

The Isle of Egg

"... it changes the way we see global warming - after that show I am sure the class will try not to use that much energy and switch off lights when they are not needed."

– Natalie Gray, age 11, Edinbarnet Primary

"They taught me to understand about global warming so I shall turn off my XBOX 360 and my TV." Adam, age 9, Gartocharn Primary

"... the show really made the pupils think about ways of saving energy." – Lauren Hone, P5 teacher, St Kessog's Primary

"It was very funny, interactive and educational. We learned that we should save more energy and that if we don't life as we know it could change forever" - Lewis and Robert, age 11

Recycling Heroes

... it has demonstrated to the pupils how they can make changes." – Mrs Williams, P2/3 teacher, Ladyton Primary

"It is good to recycle to keep our world litter free" – P5 pupil

"It was interesting and very good advice. I hope Bag Girl will come again" – P3/4 pupil

"I am going to go home and recycle" – P4 pupil

Eco Gadgets

“Reducing electricity helps our environment and it protects our planet” – Andrew, P6

“If you don’t help the environment the world will die” – Robbie, age 10

“I am going to walk more places” – P6 pupil

“I will try to play my computer less to save more energy” – P7 pupil

The Oil of Life

“If we continue to use oil in the way we do there is a good chance it will run out. If I try to make a difference it could help.” – S1 pupil, Our Lady & St Patrick’s High

“The workshop was good and I learned a lot and I will make changes.” – S1 pupil, Our Lady & St Patrick’s High

“This programme has helped me change and it was a lot better than I expected” – S1 pupil

“For me I really enjoyed it and I am glad that Eco Drama came to talk to us about climate change. Thank you” – S1 pupil

“Start thinking about how we use our fuel. Even switching off our lights [when we] don’t need them helps” – S1 pupil

“I will try to reduce the amount of water I use and will reduce the energy I use by turning off lights, TV’s, taps etc” – S1 pupil

“I will go outside more instead of sitting on the laptop” – Ross, S1

Qualitative Feedback for Food Outcomes

In order to evaluate our new play, which was written around the Eco Schools topic Food and the Environment, we set ourselves outcomes. One of the key outcomes was to **raise awareness of and connect young people with where their food comes from**.

We used evaluation forms to obtain qualitative information which demonstrated that young people have started to make this connection.

Please see a sample of quotes below – further feedback is included within the appendix

The Forgotten Orchard

“It made me think about where I get my apples from and if I’ve ever tasted a Scottish apple” – Zoe, age 11

“It made me think differently about what apples to buy in the supermarket and to check where they come from” – Mitchell, age 10

“It made me think that you should buy apples from Scotland and not South America” – Niamh, age 8

“I learned that most apples are put on a plane and flew here” – Lauryn, age 11

“It made me want to buy local produce” – Eva, age 11

“It really allows the pupils to think about air miles and where their fruit comes from” – Louise White, P4 teacher, Corpus Christi Primary

“It made pupils more aware of the fact that ‘food grows’ and is not all processed” – R McCann, P6 teacher, Corpus Christi Primary

“I just thought all apples were disgusting but then I tried one at the show and it was delicious” – Nathan, age 11

The Oil of Life

One of our outcomes in the S1 workshops was to **increase awareness & understanding about food production and its effect on the environment**

- ✓ Results from round 2 of the Carbon Footprint survey completed with West Dunbartonshire Secondary schools demonstrated that pupils now have an increased awareness about food production. With a 15% increase in the number of pupils now opting not to buy food with lots of packaging and an 18% increase in the number of pupils now trying to eat less meat.

The Magic Van

According to the Renewable Fuels Agency in 2009, using bio diesel specifically made from used cooking oil, has low carbon intensity and makes a carbon dioxide saving of **85%** in comparison to using regular fossil diesel.

Bio Diesel

By touring in a van run on bio diesel instead of conventional diesel fuel, we have saved **2.1 tonnes of CO₂** during the lifespan of the tour



The Social, Environmental and Economic Changes

Social

- ✓ New relationships have been forged between Eco Drama and schools in West Dunbartonshire paving the way to working together in the future. Many schools have indicated that they'd love another visit from Eco Drama including Knoxland Primary:

"We would love to welcome Eco Drama back to Knoxland at any time. The performances are so informative and relevant for the pupils"

Avril Davie, Head Teacher, Knoxland Primary

- ✓ Schools have felt supported to continue class learning through follow up teacher resource packs; teachers use key themes from the workshop or performance to start or develop existing school eco work. Schools can use this work as evidence towards their next eco flag.

"We had been aiming for a green flag at the time which we have now achieved."

L Mowatt, Teacher, Bonhill Primary

- ✓ As interactive drama and theatre engages many different learning styles, increased commitment from disengaged pupils can be expected. Also, increased confidence and communication skills are expected from experiential, interactive learning.

"I work with this class and have never seen them so interested in something."

S1 teacher, St Peter the Apostle High School commenting to a member of Eco Drama core staff during *The Oil of Life* workshops

- ✓ Increased social skills can also be expected – young people interact and debate within drama.

"Very valuable team building opportunity"

S1 teacher, Millburn Academy, Inverness

- ✓ Increased social cohesion – theatre is a social event.

"I think Drama is a great way for the children to learn . . . the children are enjoying a fantastic performance and learning" – Jemma Harrison, P5 teacher, Balornock

Primary

- ✓ Long term health benefits and more active lifestyles can be expected.

“I will go outside and play more instead of watching TV”. – Jason, S1 pupil, St Peter the Apostle High

Environmental

- ✓ Waste vegetable oil has been utilised in the Magic Van preventing it from going to landfill.

- ✓ The Magic Van advertising has promoted the use of waste vegetable oil and being mindful of car use within the local communities of West Dunbartonshire and Glasgow.

- ✓ Pupils have an enhanced awareness about travel and lifestyle and are able to make informed choices.

“I found out how much better it is to walk a short distance than to drive.”
P7 pupil, Bonhill Primary

- ✓ Pupils have increased respect for preservation of the environment.

“I wasn’t a big fan of eco things but now I understand.”
S1 pupil, St Peter the Apostle High

“Myself, my family and my children deserve a safe, happy, clean future.”
S1 pupil, Clydebank High

- ✓ Pupils have enhanced awareness of local and global environmental issues.

“A positive experience for pupils; they were made aware of Global issues and given the opportunity to discuss a variety of ways oil is used.”
S1 teacher, Millburn Academy, Inverness

Economic

- ✓ Jobs have been created for 2 full time members of staff; a Development Director and Administrative Producer. Jobs for 9 freelance staff (equivalent of 1 full time position) were created.
- ✓ Eco Drama sources props and supplies locally e.g. bio diesel from Apple Fuels in Bridgeton contributing to the local economy.
- ✓ CCF funding has allowed the project to be fully subsidised for West Dunbartonshire schools and 9 Glasgow schools at a time where school budgets do not allow Head Teachers to buy in their choice of curriculum and eco supporting activities.
- ✓ Eco Drama has received further opportunities for developing our work within the Curriculum for Excellence. Pauline Bowie, an Enterprise teacher at St Peter's who attended the Secondary school CPD session, has asked if we could provide further training so that her school could start integrating The Oil of Life workshop programme into their school curriculum, helping our workshop to become a sustainable educational resource: -

'Teaching 'the Oil of Life' workshops will help to deliver a lot of the overarching aims of the new Curriculum for Excellence and link well with our need for more interdisciplinary learning and interactive, creative teaching'

How We Monitored the Outcomes

The Online Carbon Calculator

The questions in our Before and After Quizzes were developed for the 2010 Magic Van Tour, and related specifically to pupil's current behaviour habits relating to waste minimisation (*Recycling Heroes*) and energy and transport (*Eco Gadgets / The Isle of Egg*). During the 2010 tour teachers completed paper copies of the quiz with their class and then returned these to Eco Drama. To reduce paper and the very time consuming task of logging such a high amount of data, this year we worked with an intelligence specialist Peter Gregory to create this tool.

"[The Carbon Calculator] lets the children see first-hand how their personal actions are influencing effects on global warming." - Lauren Hone, P5 teacher, St Kessog's Primary

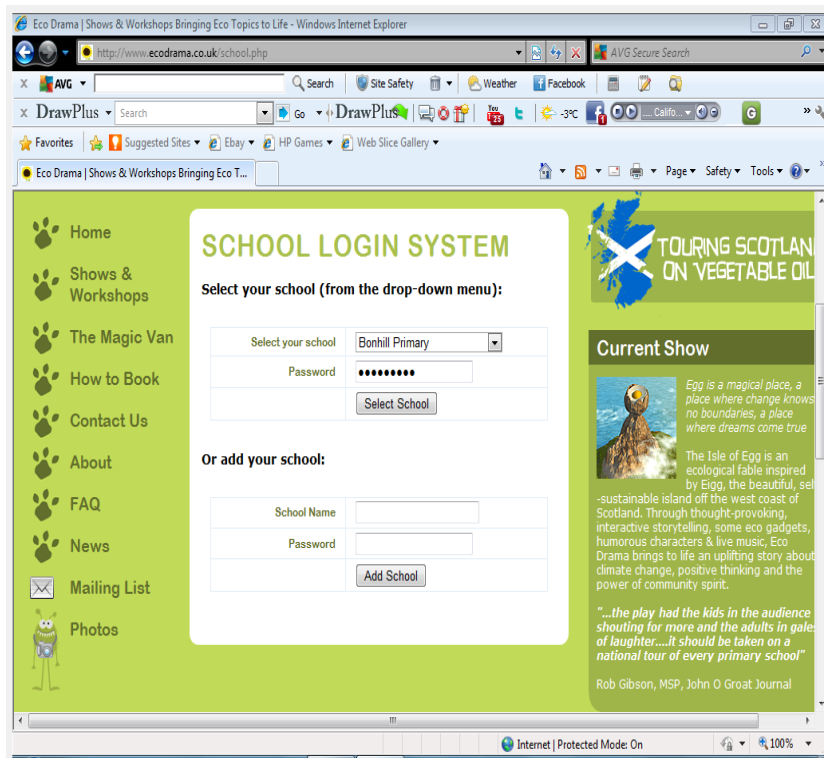
The tool was created using our original methods of calculation and conversion sources:

Travel	www.transportdirect.info/Web2/JourneyPlanning/JourneyEmissionsCompare.aspx
Energy	Energy Route Map
Waste	www.wasteawarescotland.org SEPA 'TSCB Programme Support Plan Template – No 7 'Tonnage/Carbon Impact Detail'

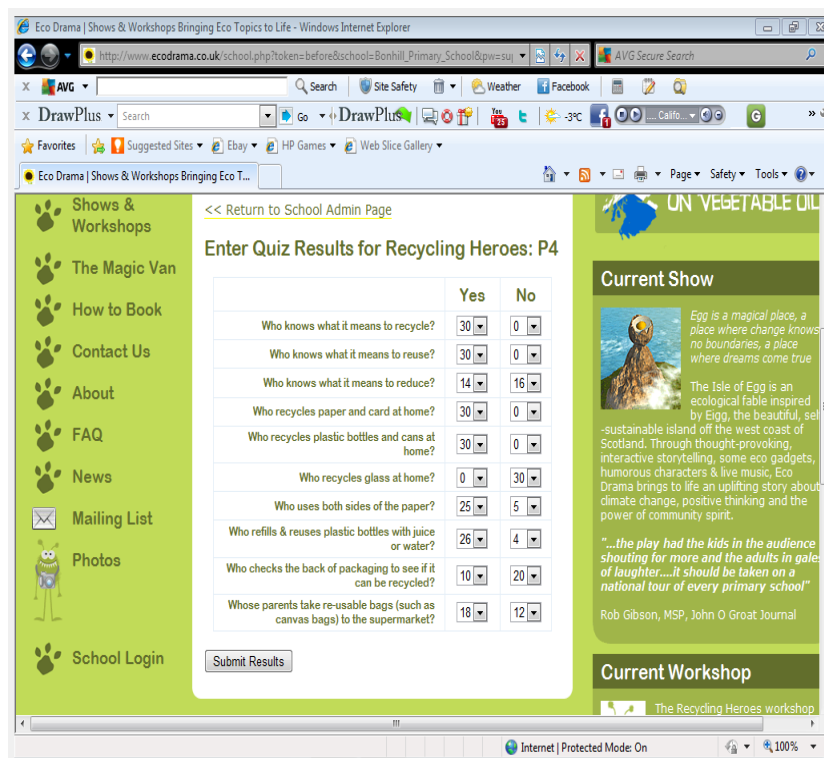
A copy of the carbon quiz questionnaire is included within the appendix.

The Online Carbon Calculator in Action

Step 1: - Schools were given a password & username to log in to the Eco Drama website



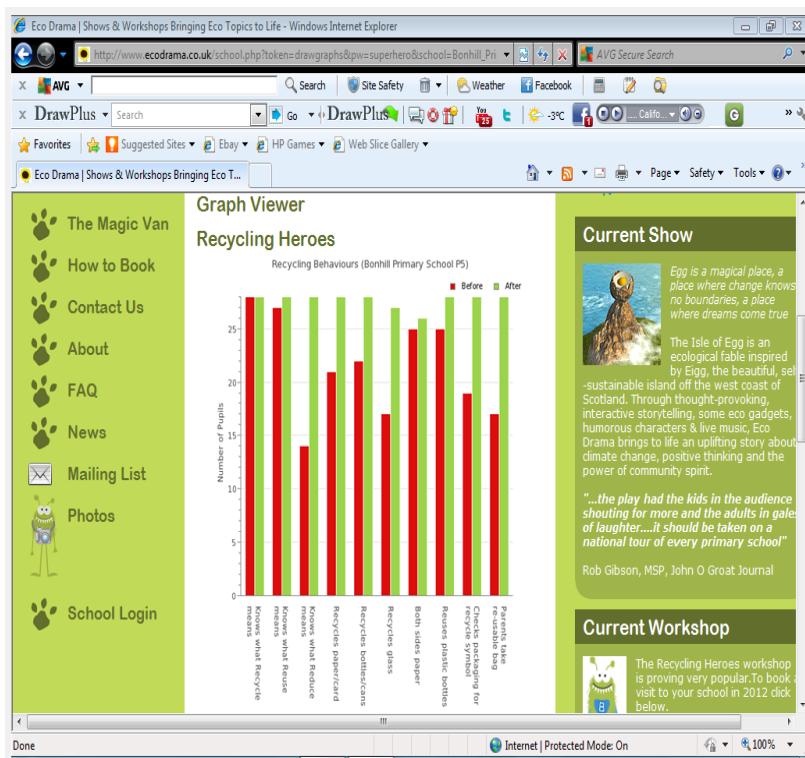
Step 2: - From there they could select the workshop or performance & enter whole class results for the carbon quiz under the 'Before Quiz' column. Each class participating created their own record.



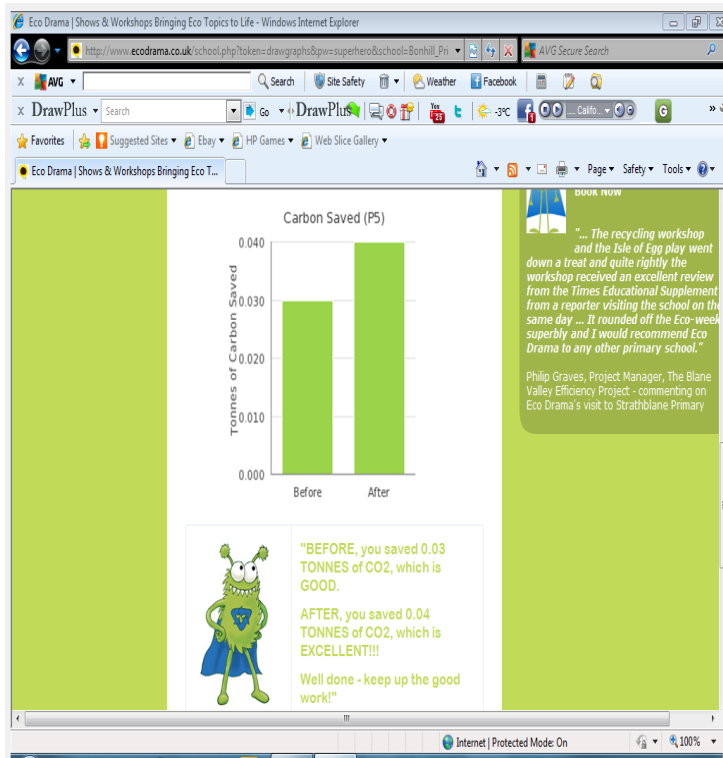
Step 3: - Approx. 3 months after the workshop, each teacher completed the same quiz with the same pupils & re-entered the results under the 'After Quiz'



Step 4: - Once both the 'Before' & 'After' quizzes class been entered, an online a graph was automatically generated that showed the before (in red) & after (in green) results for each participating class.



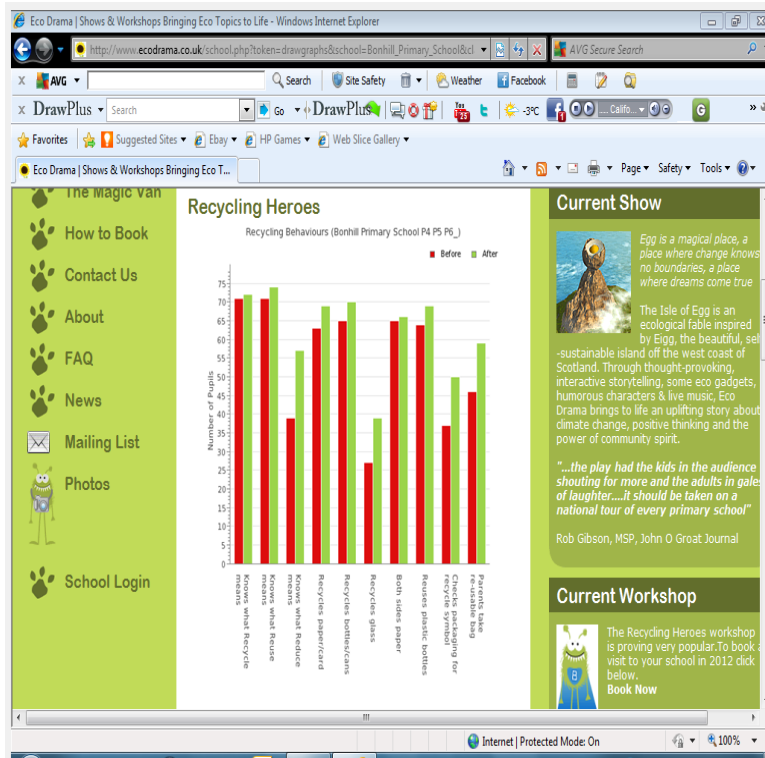
Step 5: - A second graph was generated on the same page which showed the overall before & after carbon savings for the class.



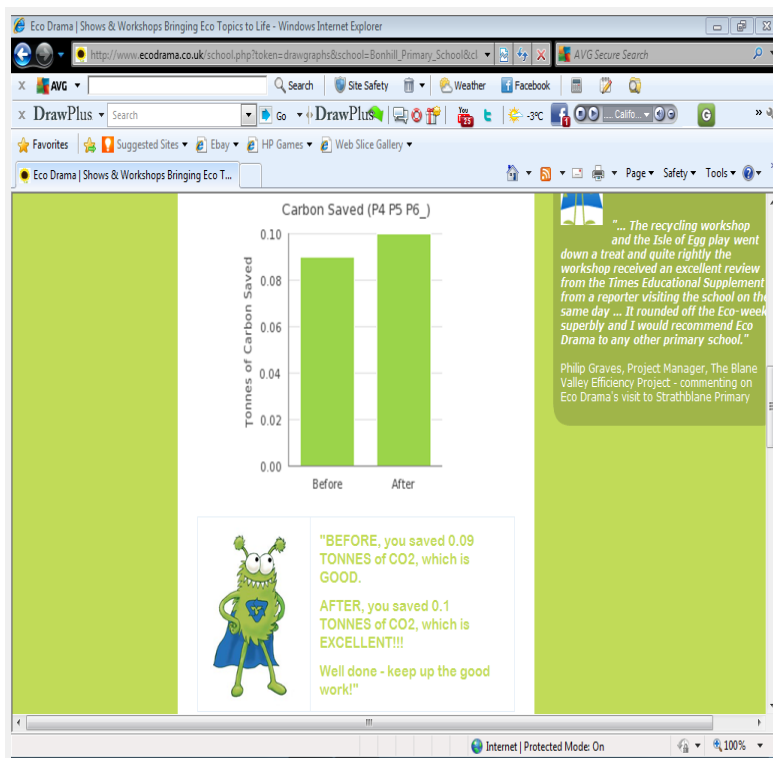
Step 6: - Schools also had the option to select to view their overall school results.

The screenshot shows a web browser window displaying a page titled "Add New Class". The page features a form with the following fields: "Workshop / Show Name" (a dropdown menu with "Recycling Heroes" selected), "Class Name (eg, P3)" (a text input field), "Teacher" (a text input field), and "Class Size" (a dropdown menu with "1" selected). There is an "Add Class" button at the bottom of the form. On the left side of the page, there is a sidebar with links for "Mailing List", "Photos", and "School Login". On the right side, there is a "Current Workshop" section with a cartoon character and a "Book Now" button. Below this, there is a quote from Rob Gibson, MSP, John O Groat Journal, praising the play.

Step 7: - By selecting 'overall school results' teachers & pupils could view the results of the whole school (all participating classes).



Step 8: - Graphs could be printed & displayed in classrooms & on school noticeboards to show whole school achievement.



Learning & Reflection

Working with secondary schools was a brand new challenge for Eco Drama. Although we anticipated in advance that working with the same pupils for three consecutive weeks and timetabling this may present problems, we encountered far more challenges in the secondary sector than we did the primary:

Challenge Presented – Secondary Schools	Overcoming the Challenge
<p>Scheduling the workshops – Emily Reid made contact with the secondary schools at the end of the summer term and established contact with a lead teacher in each school and agreed a day of the week that would suit each school for project delivery. However between summer and autumn term 2 lead teachers from Clydebank High School and Vale of Leven Academy went on maternity leave and their school timetables changed. In Clydebank High School this meant their original day no longer suited and they could only commit to a Thursday and in Vale of Leven they were unable to release S1 pupils from classes.</p>	<p>Claire Stewart made contact with all the schools again in the autumn term and forged a relationship with 2 new lead teachers in Clydebank High and Vale of Leven Academy. We worked with schools to find an alternative solution to resolve timetabling restraints. In Clydebank High School we delivered the programme 3 weeks later than anticipated allowing them to take a Thursday slot which for the first 3 weeks had been used by St Peter the Apostle High School. At Vale of Leven we agreed to pilot the project with their S2 pupils as they were able to be released from classes for the duration of the project.</p>
<p>Reduction in number of pupils – At Our Lady & St Patrick’s High we had initially agreed to do two 3 week rotations over a 6 week period to accommodate all pupils. A lower S1 intake meant that for the second rotation there were lower pupil numbers than anticipated.</p>	<p>For the second rotation it was agreed that the leaders Kevin and Jodie would team teach as opposed to leading a group each. This allowed us to trial a new method of leading the workshops and we discovered that this way was actually preferable allowing one leader adequate time to set up an activity while the other lead and vice versa. This is the technique we aim to utilise in future years.</p>
<p>Suitable space for workshops – We found that secondary schools did not have access to as many appropriate spaces as primary schools to lead workshops e.g. halls</p>	<p>We had to compromise on space and fit workshops around what was available to us. Desks and chairs were pushed to the side. Schools worked with us to try to find the best possible space each week. Often this</p>

<p>were booked for other school activities and large classrooms were full of desks and chairs that could not be housed elsewhere. It was difficult to find more than one suitable space at the same time in schools. Often one workshop leader would have a great space and the other a less suitable space.</p>	<p>meant moving to a new space each week. As we were using two spaces at a time this posed a problem. In future years we propose to only run one workshop at a time and use the team teaching method identified above.</p>
<p>Delivery of workshops - one school, St Peter the Apostle High proposed delivering all 3 workshops in one day to the same groups as opposed to over 3 weeks. As we had successfully trialled the workshops at Millburn Academy in Inverness in this way we were keen to see if this was a potential option. However it was clear that the pupils were tired and less focussed by the end of the second workshop.</p>	<p>For the remainder of the pupils at this schools we re-visited the remaining 2 weeks of the schedule and delivered the workshops as following:</p> <p>Group1: received workshops 1 & 2 in one week and workshop 3 the following week.</p> <p>Group 2: received workshop 1 in one week and workshops 2 & 3 the following week.</p> <p>This worked much better. Teachers also commented that it was good for pupils to go away, apply their new knowledge and come back and continue the learning on a week by week basis. We will continue to run the workshops in this way over 3 consecutive weeks.</p>
<p>Content</p> <p>We packed rather a lot into our 3 workshops, and this proved a lot of content to get through per workshop, leaving some of the final tasks not covered due to time running out</p>	<p>Next year, we are going to revise the workshops so include slightly less content, and also utilise the team teaching method. This will reduce pressure on one leader as they will share set up and delivery and generally have a smoother workshop. With team teaching they will also gain more time as behaviour will be more controlled.</p>
<p>CPD – The CPD session proved difficult to get teachers to sign up to when originally promoted in December.</p>	<p>We ended up cancelling the original CPD session in December as due to various school commitments and bad weather warnings teachers were unable to commit. We re-scheduled the session for March and 6 teachers signed up. Although this number</p>

	was not too high it proved to be a good number allowing Jodie and Kevin to focus their attention on fully meeting the needs of the group and spending quality time with each person. For future years we will look to work with around 8 teachers instead of aiming for a high number.
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Working with primary schools was generally easier when it came to scheduling and delivery.

Challenge Presented – Primary Schools	Overcoming The Challenge
<p>Actor withdrawing – For <i>The Isle of Egg</i> tour we recast one of the roles as original actor, Eilidh MacAskill was not able to commit to the initial full duration of touring. Fiona Manson was cast as her replacement. However Fiona withdrew from the production as she was offered a full time position.</p>	<p>Fortunately original actor, Eilidh MacAskill’s availability had changed and she now had greater capacity to tour. We had to re-arrange some dates with schools and stagger the tour so that the 21 dates were delivered across September – November. However schools were flexible and able to accommodate this change and the delivery of the work was unaffected.</p>
<p>Carbon Quizzes – The return rate overall for the first quiz was 82% (with all schools excluding one completing the quiz) however due to absence or some classes not completing the quiz the number of pupils accounted for was 82% of those we delivered to.</p> <p>The return rate for quiz 2 was lower with just 63% of pupils accounted for.</p>	<p>We will continue to make this clear at the time of booking that completion of both rounds of the quiz is a stipulation of receiving the programme free of charge.</p> <p>Next time we will offer the option to complete online or by paper copy to suit the teacher.</p>
<p>Online Carbon Calculator – The online carbon calculator was introduced to make teachers lives easier (and to reduce paper). However although step by step instructions were provided some less tech savvy teachers were initially put off completing the quiz online.</p>	<p>Talking through the process with many of the teachers and guiding them through it step by step over the phone or setting their school account for them helped in the majority of cases and they soon realised how easy and quick it was. However in future years we will offer the option to complete a paper copy or the online version to suit all teachers.</p>

What Changed From the Original Application?

From our original application through to final delivery not a lot changed from what we set out to do. Of the original 30 primary schools and 4 secondary schools that we bid to deliver to in West Dunbartonshire we reached all 34 of these schools. Of the 10 primary schools we bid to deliver *The Forgotten Orchard* to we reached 9 of these schools. The 10th school, Golfhill Primary were unable to accommodate us during the 3 week touring period in February/March. We will visit this school when we next tour the production later in 2012.

Pupil Numbers

The number of pupils we aimed to reach across the West Dunbartonshire primary schools was anticipated at approximately 5,070; we actually reached 5,222 pupils.

Due to scheduling conflicts and the difficulties associated with taking secondary pupils out of class for three weeks (as described above) we did not deliver *The Oil of Life* to as many pupils as anticipated (430 pupils). We reached 296 pupils.

Time Scales

By and large delivery of this project was completed within the original planned timescales.

CPD Session

Originally, our aim was to pass the 3 workshop plans for *The Oil of Life* over to the teachers, thus enabling them to lead the workshops themselves in their own class rooms. However, when we sat down to plan this, we felt that to try and pass on the 3 workshops, plus facilitate training in all of the drama techniques used, such as using Teacher in Role, this would take much longer than 1 CPD session. Unfortunately we hadn't built in funding for more than 1 session. We felt that if we handed over the lesson plans after just 1 session, it would possibly be disempowering to teachers if they had never tried any of the drama techniques before, and this could have a lasting effect on teacher's opinion of using drama as an educational medium. We couldn't have foreseen at the budget planning stage that we would need to deliver such in depth training, so we felt the best thing to do with limited budget was to change tactics. Instead, the session explored the techniques and drama conventions used in *The Oil of Life*, and helped teachers to discover how these could link with their specialist subjects across the curriculum.

Finance & Administration

All finances for the year were properly administered, & any budget changes were approved with our development officer. We stuck to the budget in accordance with our plans, and had no trouble with deficit at the end of the year.

Lasting Legacy

Eco Drama's Magic Van Tour will have a lasting legacy in both West Dunbartonshire and Glasgow and the wider community, and in the ongoing reduction of carbon emissions.

Lasting Legacy in the Community

- ✓ Using theatre & drama in education has proven to be **memorable** as it appeals to different learning styles and multiple intelligences. Pupils have demonstrated through feedback forms a **great memory of the show and workshops**, increasing the potential for positive behaviour change in future
- ✓ The interactive nature of Eco Drama's work means young people were **involved** and not just passive listeners. They were also involved in decision making within workshops and are encouraged to use their voice, form opinions and become modern ambassadors for the environment. **With heart & mind involvement** they have a better chance of making changes to their lifestyles.
- ✓ The reflective work covered in the Follow-up Packs means the **message was enhanced** further. Schools will have the art work, stories & pictures displayed around their school for a long time after our visit as a reminder of the work done with Eco Drama and the key messages learned.
- ✓ Each primary pupil received a **badge and miniature information booklet** to take home, which is also small enough to carry around. These proved a huge success with pupils, and we encouraged them to show parents these mini booklets so that the message may reach them also.
- ✓ It is the aim that schools **continue** with any individual and whole school **environmental action**, such as recycling and energy conservation.
- ✓ Eco Drama will continue touring its current programme of work into future years, reaching **new communities** in Scotland, each time with the aim of reducing carbon emissions in the new area. We aim to reduce carbon emissions by **1,548.4 tonnes** during our 2012-2015 Magic Van tour.
- ✓ During the Climate Challenge funded project, Eco Drama was able to develop and pilot tour both The Oil of Life secondary workshop and The Forgotten Orchard primary play. This new workshop and play will sit alongside our other workshops and play and continue to have a **touring lifespan** for many years to come.

Supporting Information

Please see the attached appendix for the following supporting information:

- **The Forgotten Orchard**
 - Images
 - Feedback from pupils & teachers
- **The Isle of Egg**
 - Images
 - Feedback from pupils & teachers
- **Recycling Heroes & Eco Gadgets**
 - Images
 - Pupil artwork gallery
 - Feedback from pupils & teachers
- **The Oil of Life**
 - Images
 - Feedback from pupils & teachers
 - Pupil pledges
- **Evaluating (*a sample of the carbon questionnaires and evaluation forms used*)**
 - Recycling Heroes Carbon Quiz
 - Eco Gadgets Carbon Quiz (same quiz issued for The Isle of Egg)
 - The Oil of Life Carbon Footprint Survey
 - Example of primary evaluation form (taken from The Forgotten Orchard)
 - Example of teacher evaluation form (taken from The Isle of Egg)
 - Secondary evaluation form – pupil (The Oil of Life)
- **Press Coverage**
- **Methodology & Research for The Forgotten Orchard**
- **Teachers Packs – sent as separate documents**

Eco Drama's Magic Van Tour CCF ref no: 1034

Final Report compiled by:
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Claire Stewart, Administrative Producer

29th March 2012

