### **Energy Topic Case Studies**







Teacher Name	Pam Lowry
School Name	Mullavilly Primary School
Number of pupils	107
<b>Eco-Schools Status</b>	4 <sup>th</sup> Green Flag
Topic	Energy

### 1. Why did you choose Energy as an Eco-Schools topic? What was your Action Plan?

We choose energy as our topic as it had been highlighted in our previous green flag assessment as an area to tackle in greater depth than we had done in the past and link it to financial savings.

Within our Eco Club work, we looked at ways to help the school save money by encouraging pupils and staff to become more energy aware by switching off lights and computers, closing doors and windows and opening blinds to utilise natural light. We carried out an audit of energy use using the Environmental Review\* and presented the results to the whole school in a special eco assembly. By highlighting and monitoring simple measures we were able to help the school achieve a 14% saving in electricity use and demonstrate how to help the environment and reduce our carbon footprint. Parents reported that our environmental work in school was impacting on energy saving at home as pupils put pressure on parents.

We were very aware from media reports that energy prices had increased rapidly over the last few months and that the "credit crunch" was impacting on families in our community. As an experienced Eco school, we felt it was appropriate to help spread the environmental message further afield than within our own school. The Eco Committee discussed various ways of educating the community including a film, drama display, a rap/song, poster and a leaflet.

Within the timeframe available we decided to produce an energy saving leaflet and photograph the ideas ourselves.

\*[See http://www.eco-schoolsni.org/media/Full%20Environmental%20Review-2.pdf]



### **MULLAVILLY ECO CLUB ACTION PLAN 2011/2012**



TOPIC	ACTION	TARGET/ MEASURE	TIMESCALE DEADLINE	RESPONSIBILITY	ACTUAL RESULT/ DATE ACHIEVED
Energy	Carry out audit of energy use	Weekly records of electricity used in school recorded on graph.	Continue throughout year	Energy monitors	End of June
Energy	Monitor appliances left on in classrooms at break and lunch time	Committee members to carry out "secret" monitoring over one week and record appliances left on eg computers, lights etc	November 2011	Committee Members See rota	November



Energy	Visit to local wind turbine	Update our knowledge on use of alternative energy and develop links to local community	November	Committee Members	November
Energy	Assembly to promote awareness of use of electricity through an Energy Fortnight Campaign.	Committee members to reveal result of secret monitoring and advise on ways to save energy. Energy saving in school of 15% over fortnight.	January 2012	Committee Members	January
Energy	Competition in school to promote energy saving devices/ideas	Involvement of local community in producing energy saving ideas	January	Public Relations team	
Energy	Participation in UNESECO Young Environmentalist Award	To produce an A4 pamphlet on saving energy	By end February 2012	Committee Members	
Energy	Launch of Energy Saving Leaflet	Media coverage eg newspaper reports, links to Earth Hour. Postal drop in local community/ shops Website links to wider community.	March	Committee Members	March - April

### 2. How do you integrate Energy into the curriculum? www.operation-energy.com

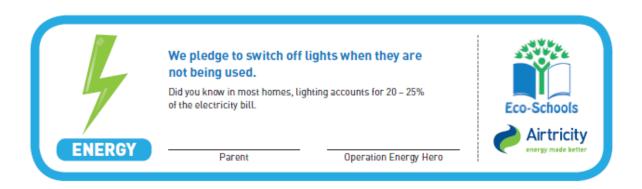
Our Eco school status is very much incorporated into our school ethos. Within each class we have an Energy Monitor to ensure lights and computers etc are not left on unnecessarily. Alongside this, our Eco Committee carried out checks at break and lunch time and the most energy efficient classes were awarded an "Extra Play" golden ticket. A great incentive to promote co-operation!

Our Eco committee use regular assemblies to remind pupils to save energy and we participate in World Earth Hour and encourage our local community to switch off for an hour on one evening in March. In the past we have dressed up in bright clothing and held our lessons in the dark!

Key stage 2 classes were able to calculate in maths how much money the school had saved and project this for the year. Pupils used graphs to plot our energy use over the project.

We also have visits from Action Renewables to support World Around Us lessons on the impact of our energy use on the environment and sustainable alternatives.

We use the Eco pledges on the Airtricity website (see below) to make links with home.



### 3. How do you co-ordinate with other teachers to ensure a whole school approach?

As Eco co-ordinator at Mullavilly Primary School, I designed an Eco Curricular Links booklet giving ideas, suggestions and web resource links for each of the areas within Eco Schools. Teachers, where possible, link Eco topics into World Around Us and I monitor this to help teachers recognise opportunities to promote Eco topics within work they are doing.

## 4. How did you encourage pupil participation? How did they have ownership of the project?

We have an Eco Committee which is made up of pupils from P5 – P7. Each year pupils apply to become a member of the committee by filling in an application. We also have a group of Eco Warriors who help us with more practical tasks. However, every pupil at Mullavilly Primary School is encouraged to be pro-active as a member of an Eco School. A suggestion box on our Eco board enables pupils to suggest activities or highlight areas of concern. We use our noticeboard to inform pupils of our energy targets, plans and successes. We use assemblies to make eco announcements through rap, drama and competitions.

Our daily monitoring of energy use at break and lunch times encourages all pupils to ensure energy conservation within their classroom. At the end of break a smiley or sad face on their classroom door will tell them how they have done. Pupils can't wait to get in from the playground to see, hopefully, the smiley face on their door!

### 5. How did pupils/whole school benefit from this project?

The profile of our school was raised due to extensive publicity of our Energy Ideas Saving Leaflet, in local papers, within the Eco community and to a wider audience through the internet and school website.

Pupils were able to develop personal skills in chairing meetings, working together and seeing a project through to completion.

As part of our efforts to promote our project outside school, we designed an Energy Saving Ideas leaflet and entered the UNESCO Young Environmentalists Award competition. [See our leaflet <a href="http://www.mullavillyps.co.uk/extra-curricular/eco-club/">http://www.mullavillyps.co.uk/extra-curricular/eco-club/</a>] For our regional heat, the Eco Club had to present their idea to an "Eco Den" at Lough Neagh Discovery Centre. To help our entry stand out the committee composed a song to the tune of "He's Got the whole world in his hands".



# SAVE ENERGY – SAVE MONEY YEA PROJECT BY MULLAVILLY ECO CLUB



We're Mullavilly Eco School

We've made a leaflet that's really full

Of great ideas to save energy

The environment and your money!





We gathered ideas from our Eco friends
We looked at our school's energy trends
We visited a local wind turbine
All to help with our leaflet design.

We made lots of plans of what to do

We had to problem solve and plan review

We developed skills and worked as a team

Our teacher says we're very keen!





We had fun dressing for the photo shoot

We had such a laugh –it was a hoot!

Lights, camera, action! It was good fun!

We worked together to get the job done.

Our message is for our community

That we can save money and energy.

We encourage everybody to be involved

Then the environmental problem might be solved!

### 6. Did you receive any support or <u>resources</u> from parents, staff or outside agencies? Did you have to source any funding?

We visited a local wind turbine at the Rapid Factory, Tandragee, as part of our initial research into the costs and environmental impact of energy production and use.

We were very grateful to support from WWF who helped to facilitate our leaflet launch at their Earth Hour celebrations at Stormont.

EcoUNESCO were in contact regularly regarding our project and were a useful source of information and help.

Our principal, staff and Board of Governors were very interested and supportive of our project and provided the funding to enable us to travel to Dublin to represent N.Ireland in the All Ireland EcoUnesco Young Environmentalists Awards.

Parents supported us in helping us to fundraise through a car boot sale and through donations of used clothing into our clothing bank. We were able to use this money to cover the cost of printing our leaflets.

### 7. Did you encounter any problems and, if so, how did you overcome them?

As with any year, some committee members fell by the wayside due to other commitments etc. However, we ended up with a small 8 member committee who were fully committed and totally enthusiastic.

Even though we had planned a timetable at the beginning of our leaflet project, at times it was hard to get things done in the time we had estimated. In particular, the design process for the leaflet took much longer than we anticipated and we had to arrange several extra lunch-time meetings in order to meet the project timeframe.

When designing our energy leaflet, the committee found parts of the process tedious but realised that it had to be done. There were also some issues regarding working together as a team. At times, not everyone agreed on the decision but we learnt to negotiate and make compromises for the benefit of the whole team.

## 8. Is there any advice you could offer to schools undertaking the Energy topic? Do you have any useful suggestions for other teachers embarking on the topic?

Spend some time auditing current energy use in school to give you a base line before you begin any intervention.

Train your committee members to take responsibility for monitoring and recording energy use on a daily basis.

Use a whole school approach and keep everyone informed of progress through regular updates in assembly, noticeboard and school website.

We found more active pupil participation if there was a reward for classes who were most energy efficient eg Extra play time.

## 9. Has doing this topic driven other Eco-Schools ideas? What are your future plans regarding Eco-Schools?

Pupils' awareness in environmental issues has been raised and although we often talk about "greenhouse" gases and "climate change" we have not tackled the area of "Climate Change" as an eco school project. As Eco Co-ordinator at Mullavilly, I am interested in finding out more about the resources available to see how this could be integrated into current curricular work and our Eco Club activities.

I am keen that we continue to grow as an Eco School. So many aspects of our whole school life are embedded with the Eco school ethos eg Walk to School week, recycling, gardening, energy saving, wildlife trail etc. However, I am keen that more aspects are integrated into class work and World Around Us topics where possible.

## 10. How did you use Operation Energy (<u>www.operation-energy.com</u>) to help you with the Energy topic?

Pupils and teachers were able to use the games, activities and lesson plans at <a href="www.operation-energy.com">www.operation-energy.com</a> to teach children about energy saving in a fun way. We have a link on our school website so that children and parents could access it easily from home.



Launching our leaflet at Stormont



All Ireland Finals of ECO UNESCO Young Environmentalists