

Energy Topic Case Studies



Energy

Teacher Name	Mrs Mary Spratt
School Name	Fair Hill Primary School
Number of pupils	290
Eco-Schools Status	Green Flag (4)
Topic	Energy

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

When the Display Energy Certificate for 2011 arrived at school, the ECO Committee realised there had been a rise in usage from 2010. As they analysed it they knew that it was partly caused by building work on site, but also by electrical items on standby especially during break and lunch time. It was decided to choose ENERGY as a major topic for our next Green Flag Award and think up a scheme whereby the whole school could be monitored closely and hopefully move from band E to band D. When we had last been in band D, two rooms in the school had not been used as classrooms so we were now giving ourselves a difficult challenge.

Process	Success Criteria	Tasks	Timescale	Staff/Pupil Involvement	Resources
1. Elect ECO Committee and draw up a list of objectives.	Four members appointed from each class P4-P7.	Nominate 4 pupils from each class P4-P7 to serve on ECO Committee. Appoint Chairperson and Secretary. to co ordinate work. Distribute ECO Club objectives around the school. ECO Assemblies.	September 2012 Term 1	Mrs Spratt, Mrs Coulter Mr Brown (Principal) Mrs Reain (Caretaker) ECO Club Members	
2. Carry out Environmental Review. Decide on Plan of Action.	Environmental Review completed. Action Plan drawn up.	Update - Environmental Review and prepare Action Plan.	September 2012	ECO Committee Mrs Spratt Mrs Coulter	Environmental Review Questions.
3. Continue to reduce Classroom and whole school waste for recycling. Monitor litter in the school grounds compare with last year.	Litter in school grounds reduced. Continue the reduction of Black bin waste.	Appoint litter patrols/ ECO buddies Rota of pupils to collect paper on daily basis and put in re-cycling bin. Recycling awareness raised through assemblies at KS1 and KS2 by the ECO committee. Take part in the Big Spring Clean and compare to last year's total.	On going Term 1 Term 3	P6/P7 pupils All staff and pupils. ECO Committee KS2 Community group	Litter pickers Classroom bins, wheelie bin, recycling bin, litter bins.
4. To save energy by switching off lights, equipment, when not required. Turn off taps properly.	Computer monitors switched off when not in use. Lights switched off when areas not in use. No dripping / running taps.	Ensure computer monitors have signs. Replace if necessary. Draw up rota for light patrols. Ensure there are signs for all taps in school	On going Special focus during 'Switch off fortnight' November 12 Power Down day 7 th Nov 12	All staff and pupils	Signs Posters Rota
5. Monitor the electricity consumption	Record of the energy used and compare to last year.	Set up a spread sheet for electricity Consumption on a monthly basis. Installation of Air Tricity monitor for readings	On-going Nov. 2012 onwards	P6/P7	Data Collection Sheet www.operation-energy.com .

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

Renewable Energy is studied as a topic in the Year 4/5 class.



ECO committee members, enjoying some practical work about Solar Energy, with Mr Nesbitt from Atlas.

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

Mrs Clinghan, former Principal, Mr Brown Principal and I the Eco-Coordinator along with pupil members of the Eco-Committee developed the Action Plan. The issues raised were brought to the attention of all staff in planned meetings and ideas taken to the Board of Governors.

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

The ECO committee decided to colour two pictures of energy saving bulbs, red and green, laminate them and display the reversible A5 size poster on each classroom door. It would be the duty of each class to nominate light patrol monitors, who would turn off lights, computers and plugs, when not needed but especially during break and lunch time. Designated pupils would visit each class during break and lunch- time, turning the poster to the red or green side and give points accordingly. The points were added up at the end of each month, graphed and the winning class announced in assembly and their name displayed on the poster on the ECO Schools noticeboard.

The P6 class also did a survey of the drop in temperature before and after breaks if the doors were left open. One door was found to be faulty. This was brought to the attention of the BOG and mended. In consultation with the caretaker the heating was reduced by a couple of degrees which also made a big difference.

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



SSE Airtricity and Eco-Schools Global Wind Awards 2014 – Runners up in Operation Energy Project of the Year.

This year we were invited to attend the SSE Airtricity and Eco-Schools Global Wind Awards in the Everglades Hotel Derry~Londonderry. The event included an energy forum Q&A, providing pupils with the opportunity to pitch their energy related questions to a panel of leading energy/environmental industry representatives, a presentation by our pupils on their study of energy efficiency and renewable energy and an exhibition space focused on the energy topic. We were presented with our Award from Jason Cooke, SSE Airtricity; Ian Humphreys, CEO, Keep Northern Ireland Beautiful. After lunch we were taken on a trip up to Slieve Kirk Wind Farm, where pupils had a guided tour of a wind turbine.

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

Several years ago the school was fitted with 16 Solar panels. During the last two years we have also checked the reading on the display panel each day and recorded the Wattage and CO2 reduction.



Again our school is completing another extension of four classrooms. As an ECO committee we were hoping that new solar panels would be incorporated into the new south facing roof.



It was a great opportunity for the school to find out more about the advantages of solar panels. So as soon as the contract was awarded, the ECO committee contacted the firm and invited them to speak to the pupils. We were pleased to hear that 60 new panels are to be added to the existing 16 and as they begin to function we will be able to work out the difference in our CO2 reduction in comparison to the original system.

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



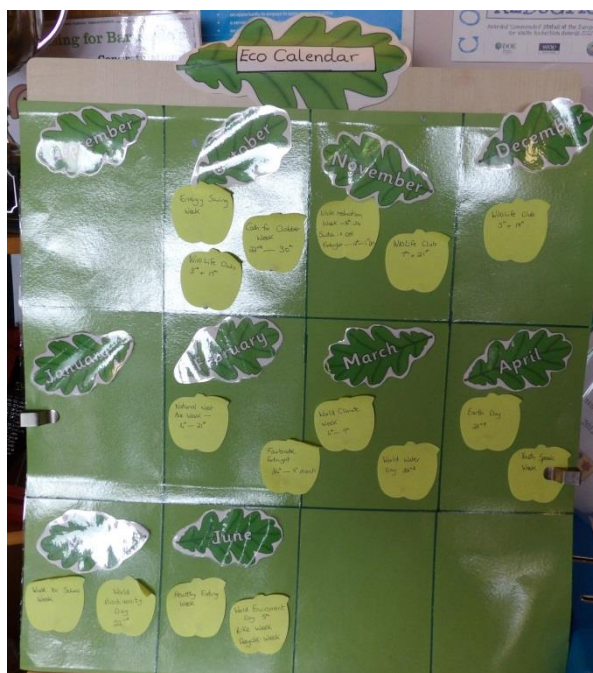
A photograph of one of the posters we made to remind everyone to close the doors and save energy, especially during the new build.

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

In March 2014 we were awarded our 4th Green Flag.



Ever forgotten an important date? Not the Eco-committee and pupils of Fair Hill Primary School. We have introduced an Eco-Calendar that informs every one of their progress and involvement throughout the year.



Banbridge District Council has reported to school a continued improvement in school recycling from 77-83%. Energy and Waste Reduction was highlighted in school and community through participation in EWR and SSE Airtricity and Eco-Schools Power Down Day.

Excellent display work throughout school informs every one of efforts of the Wildlife Club who have been highly commended for their work this year and the House Sparrow Award'.

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

Fair Hill also took part in the World Day of Action Operation Energy Power Down Day.

We give 'Scores on the Doors' for turning off lights!

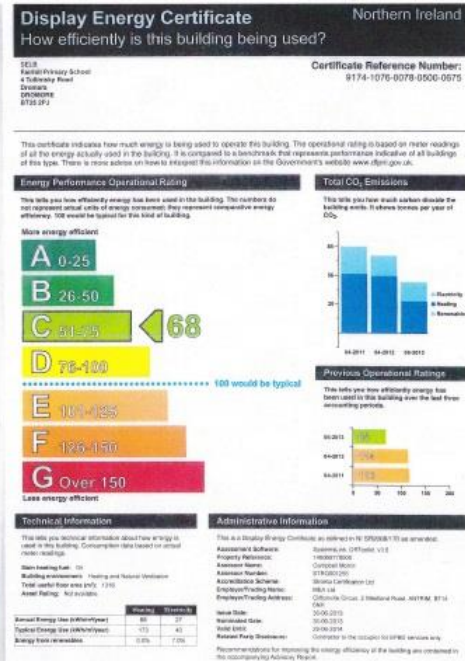
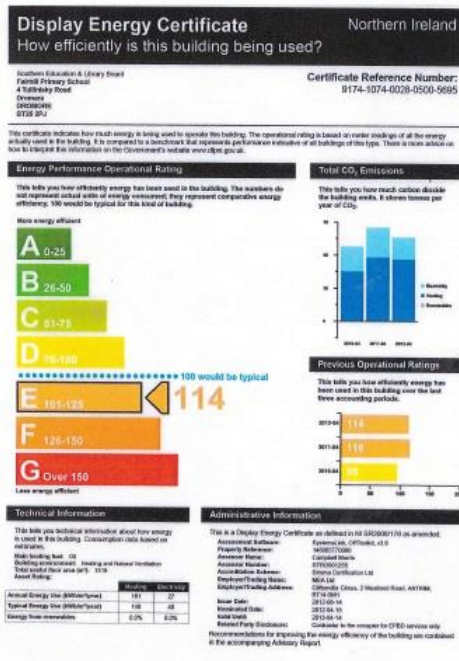
Whose class was best?



Our Energy Project on display in the entrance hall.



The result of all our efforts has changed our energy performance operational rating from 114 to 68.



How's that!!!!!!