#### **Energy Topic Case Studies**







Eco-Schools Status	Green Flag Award		
Number of pupils	Belfast 870		
School Name	Victoria College, Cranmore Park,		
Teacher Name	Mr Mark Winning		

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

Through participating in 'Girls go Green' Week and 'Power Down Day' the ECO Committee discovered what a difference can be made, reducing the amount of energy consumed, savings for the College but more importantly reduce the Carbon footprint and help our Planet.

So as part of our Action plan the Eco-Committee decided to set targets to raise whole school awareness and also reduce energy costs.





				Wednesday Power		
School		Monday	Tuesday	Down Day	Thursday	Friday
Victoria College	am	453209	455990	461550	463616	466350
	pm	455778	458347	463240	466028	468926
	usage	2569	2357	1690	2412	2576

Hopefully at Victoria College this year, and future years, we can show that we are not M.A.D. – but we are 'Making-A-Difference'.

Another energy saving initiative within the last few months was to have our main school toilet block upgraded. This resulted in low energy lighting and reduced flow water taps. We also have energy saving high efficient hand dryers, which should help reduce further costs and all will hopefully show an improvement and meet our targets shown in the graphs and charts.

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

The Climate Change Summit on 14<sup>th</sup> February 2013 at Parliament Buildings was an ideal opportunity to raise the profile of the Climate Change topic in school. The event included speeches, presentations and an exhibition area focused on the Climate Change topic. Francesca, Caitlin, Krissy, Katie and Gina presented information on their research into the impacts of climate change in the USA. The event also included a question and answers session with the Minister for the Environment; a presentation from the new International Eco-Schools Coordinator; announcement of results from the Eco-Schools World Days of Action Operation Energy Power Down Day; and the launch of new Climate Change Resources for Key Stage 3 age pupils.



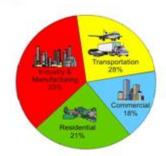
Brid Conneely, International Eco-Schools Coordinator; Mr Tony Wilcox, Chairman TIDY Northern Ireland, presenting the Climate Change Summit certificate to Francesca, Caitlin, Krissy, Katie and Gina from Victoria College.

Within their presentation the girls outlined how Climate change is affecting many areas of society in the United States and the impact on some of the necessities of everyday life - water, energy, food and health.

Caitlin described how to cut fossil fuel emissions? One way is to consume less. Another is to develop new types of fuel that will not harm the environment. 'Did you know that the carbon footprint of U.S. households is about 5 times greater than the global average? In the United States research has shown that new technology - renewable energy sources like wind, solar, and geo-thermal power can provide almost all of the primary energy demand.'

### **ENERGY**

- Fossil Fuels are the primary cause of global warming.
- 87% of US greenhouse gases coming from energy production and use
- Coal-fired power plants single largest source of pollution
- Carbon footprint of US households is five times greater than the global average
- US households single most important action is to drive less.





Climate Change Video <a href="https://vimeo.com/72777507">https://vimeo.com/72777507</a>



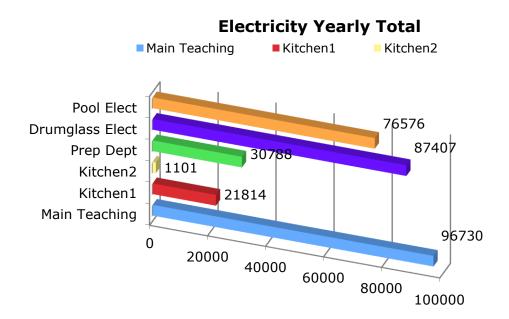
#### 3. How do you co-ordinate with other teachers to ensure a whole school approach?

Our Eco-Committee team members include Heads of Department, Coordinators, School Grounds Manager and Estate Staff, Eco Prefects, Eco-Council and Green Officers. Over 20 people form the Eco-committee and are representative of the whole school community. Environmental education and action are evident in Curriculum work in many departments within school including Technology, Geography, Art & Design and Languages. Newsletters and display boards and the school website keep the school community up to date with ongoing activities and developments.

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

Our new Eco-Committee, which is made up of elected and appointed Eco Prefects and 'Green Officers' represent all Years within school, they take on the responsibility on monitoring their own form room and also classrooms throughout the day. New Rota sheets are compiled and completed on a weekly basis with energy 'high use' rooms identified and acted upon.

- The Eco-Prefects took an Assembly on the 'impact of our actions', minimising consumption and turning off lights and computers.
- They hoped that this would raise awareness of energy waste and encourage all staff and pupils to switch off lights, computers and inter-active whiteboards and any other electrical appliances when not in use.
- These targets were then to be monitored by taking meter readings and comparing these with last year and then setting targets for the incoming year.
- These statistics were then taken by Aisha (ECO-Committee mathematician) and converted to bar and pie graphs which provide a visual stimulus and displayed in the main foyer. (see enclosed). The graphs are something tangible which will enable us to monitor and evaluate our progress in terms of reducing energy usage.



The Eco-Committee meet every week throughout the school year to discuss their 'Green Issues' which they identified in their environmental review, and put in place an Action Plan and have monitored and evaluated on an on-going basis. They have raised whole school awareness by holding Assemblies talking to staff and their peers. Their work has been immense and they have tried to be involved in all ten topics suggested by Eco-Schools. They have been self-led/driven and have worked as a Committee, giving up their lunchtimes to carry out their discussions and debates.

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

The Eco-committee have raised whole school awareness in identifying 'Recycling' & 'Energy reduction' as main topics and have introduced new bins in and out of school and we now find ourselves in a lucky position of being paid for what we recycle whereas previously we had to pay for its removal. They have been involved in drawing up graphs and charts and setting monthly targets for next year which will be compared with previous years in order to monitor and evaluate to ensure that we are kept on track and reduce consumption levels and thereby save costs to the school budget.



Victoria college pupils being presented with the Airtricity and Eco-Schools Eco-committee of the Year Award by Anne Hayes, Department of Environment; Frank Mitchell Event Compere, Carmel Fyfe, Eco-Schools Manager;

Through participating in several initiatives such as Climate Week UK, Climate Change Summit at Stormont, Girls go Green Week', 'Power Down Day' and 'Photo Essay' the Eco Committee discovered what a difference can be made by highlighting concerns for our future, changing the mind-set of young people and making sure the message goes home and out to the local community.

We were delighted that the work of our Eco Committee was recognised by being awarded 'The Best Kept School' in Belfast, Eco-committee of the Year at the Airtricity and Eco-Schools Global Wind awards, Winners of the Belfast Environmentally Efficient School Competition and also our 1st Green Flag Award.



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

Winning the Belfast City Council BEE's Competition the pupils submitted an environmental review of the school describing the environmental problems in school. At the awards event in Belfast City Hall pupils outlined how waste reduction and recycling action including how recycling bins are to be placed in every classroom: To inform the entire school community the team of Chelsea, Jade, Nicole Shields and Nicole Haffey produced a video to explain the use of bins and encourage recycling.

Wrigley's Litter Less Competition – Funding to make school a greener place, increase awareness and obtains funding for bigger projects.

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

In College at the moment we have the one heating system, which is old and inefficient. There are new decentralized heating systems going into Technology, Modern Languages, Boarding and our Preparatory Department. These will have modern efficient boiler/burners, which will hopefully show a reduction in gas, electricity and water usage; using our graphs we can check these. Further down the line we are hoping to have Actuators installed throughout the main school building which will facilitate the zoning of heating and thereby make further savings and reduce are carbon footprint.

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

Cleanup of our school grounds, participation in Litter Picking using 'Litter Patrols' in school and also a 'A Big Spring Clean Up' in Drumglass Park in Belfast.

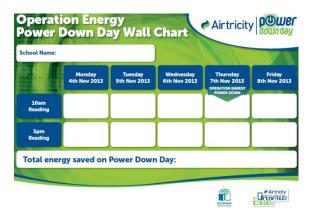




We plan to set up a partnership with a school in China and to share our Eco experience with them. We will aim to further reduce the carbon footprint in school and to involve the local community in future actions.

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

Operation Energy Power down Day Toolkit for ideas to reduce Energy. Also monitor energy use and plan activities.



Operation Energy Climate Change Lessons -

Planet Cool - In this lesson pupils will develop their understanding of climate change and the affect is has on the environment.

Eco-Friendly Feet - This lesson will help pupils to consider ways in which they can reduce their carbon footprint. Pupils will also gain an understanding of how each of us contributes to climate change.

To access the full range of Operation Energy resources including over 60 lesson plans, games and interactive activities simply register at <a href="www.operation-energy.com">www.operation-energy.com</a>. Operation Energy is free and offers schools a full range of NI curriculum linked resources via the Teacher Zone.