

TITLE:

## That's Just Rubbish! Garbology at Cirencester College

DATE: July 2010



INSTITUTION PROFILE

Tertiary College

2,200 full time students

3,000 part time students aged 16-19

Two main sites

Urban

### SUMMARY

Cirencester College tackled its complete lack of recycling by applying the science of Garbology – an American concept which is the analysis of what is thrown away to identify the behaviours and patterns behind the action.

The project engaged a cross-section of students from around the college and provided enough reliable data to persuade the county council to provide appropriate recycling facilities.

After three years the college's recycling rate has gone from nothing to nearly 40%.

### EAUC COMMENT

Cirencester College organised an innovative waste project that not only reduced waste to landfill by 40%, but also practically engaged students in the process. The results of this endeavor will be long-lasting and the EAUC champions all the work that the students of Cirencester have done to bring this project to fruition and to disseminate its success.

### THE PROBLEM

In 2006 the principal of Cirencester College set up a Green Group, prompted largely by the rising cost of energy and landfill tax.

Waste, energy and water were identified as being the first focuses of the group, which is made up of staff and student representatives from the college's People and Planet group. This case study focuses on the college's work on waste.

At the time there was no sorting of waste taking place at the college and very limited recycling facilities, so it was clear that changes could be made to the way waste was dealt with before it was even investigated.

The group wanted to involve students in their investigations but faced the problem of no common enrichment time in the college's timetable. This meant that classes had to be specially organised to take place at the same time so a number of student groups could participate in the project.



### THE APPROACH

One of the college's lecturers, Jim Grant, was an archaeologist and had heard about Garbology, which was developed as a programme at the University of Texas. It is essentially the archaeology and science of waste, and it inspired Jim to create an academic project to investigate the college's waste situation. The project was led by Matt Reynolds, another archaeology lecturer who was developing environmental and heritage provision.

Funding of £500 was sourced from Cotswold District Council and was used to cover some staff time for the project. The council had been advertising for bids which included a sustainability aspect, so it was this that the college focused on in its bid.

Several classes were brought together which represented a cross-section of students from different parts of the college. Students studying for the International Baccalaureat, Countryside Management, Horticulture and adults with learning difficulties were all involved in different aspects of the project along with other student enthusiasts

The students analysed the contents of a random sample of the college's bins over a few weeks. Waste was categorised, the weight and the volume measured. This provided a really clear picture of what was going into the bins and what

changes would make the biggest impact. Perhaps the most surprising discovery was the huge volume of empty plastic water containers which equated to around 500,000 litres of waste per annum. This waste stream was second only to unrecycled paper in terms of the college's landfill waste by volume.

The college then had the information it needed to apply pressure to the county council, which provided its bins and waste collection. Using this data the college persuaded the county council to provide new recycling bins for cans and plastic along with additional paper bins.

The information collected by the students was used across all three subjects and the cross-section of students involved effectively spread the message right around the student community. The college believes this was a very efficient way of engaging the maximum number of students in the changes needed to dispose of waste.

## OUR GOALS

- To properly understand the college's waste, both in terms of categories of things thrown away and the amount
- To engage students in a recycling project which also linked to the curriculum
- To reduce the college's costs for waste disposal
- To raise awareness of recycling in the college community

## OBSTACLES AND SOLUTIONS

### Obstacle

- Securing the right recycling facilities and collections
- Having the space to house new recycling facilities
- Ensuring good awareness of new facilities and how to use them
- Staff and student preferences for bottled water delivered to the college

### Solution

- The principal negotiated with the county council to have large recycling containers on site. Using the data collected by the students they were able to persuade the council that recycling facilities were necessary. These bins are in a place where the local community can also use them.
- Like many colleges, Cirencester has issues with the size of its estate. This meant that, for example, disposable crockery and cutlery has to be used in the refectory as there is no space for a dishwasher.  
  
A change of waste contractor by the council (which provides the waste collection service) means that waste will now be sorted for recycling after it has been collected. So the college now only needs space for one large bin, where previously there were many bins for the different types of waste.
- Using a cross-section of students in the project meant many parts of the student community were engaged in the topic. The new facilities were also promoted with an article in the college newspaper, website, notices next to recycling projects, a recycling scarecrow and a large number of new recycling bins across the site.
- Staff bottled water contracts have largely been run down and all are due for replacement with mains-fed water coolers. A similar scheme was in the new build plans. Campaigns against bottled water and the provision of alternative containers have so far had little impact on student usage.

## PERFORMANCE AND RESULTS

- The college has increased its general recycling by volume from just over zero at the start of the project to 38 per cent three years later
- Additional waste streams are now also recycled including white goods, metal, batteries, fluorescent lighting tubes and furniture. The college also does some composting. Overall recycling is around 50%
- Energy consumption has decreased from around three million kilowatt hours a year to 2.5 million kilowatt hours a year
- Plastic and Styrofoam containers in the kitchens have been replaced with biodegradable cups and plates
- A series of small projects have also been started including a water butt and pond, mulching, a wormery and converting plastic bottles to bird feeders
- Water consumption has decreased from nearly 15.5 thousand cubic metres a year to just over nine thousand cubic metres

## LESSONS LEARNT

- Involve a variety of students in the project as this helps spread the message among the student community. It also helps different students integrate and work together and increases the 'ripple effect' of the project among their peers. Using some classes gave the group a presence and something which interested individual students could join
- Sourcing funding to cover staff time really helped the project along. It took the pressure off and meant that there was also time to work with colleagues to maximise the curriculum impacts of the project e.g. some of the data was used in maths lessons
- Support from the top makes almost anything possible. The fact that the principal set up the green group meant there was senior endorsement for projects which come out of it
- Ongoing involvement of a staff group drawn from across the college (support and academic) is key to continued momentum. Students are with us for 21 months so each new cohort needs to be engaged. While there is some overlap e.g. through the People and Planet group, long term commitment from staff is vital

## FURTHER INFORMATION

Matt Reynolds, lecturer  
[mxr@cirencester.ac.uk](mailto:mxr@cirencester.ac.uk)  
01285 640994

[www.cirencester.ac.uk](http://www.cirencester.ac.uk)

Definition of Garbology  
<http://en.wikipedia.org/wiki/Garbology>



**The Environmental and Sustainability  
Champion within Further and Higher  
Education in the United Kingdom.**

The EAUC provides training, advice and support to our members as well as providing a forum for best practice in the sector.

To join phone **01242 714321**

### *Disclaimer:*

Although every reasonable effort has been made to ensure that the information contained in this document is accurate the EAUC, the contributing institutions, the funding and the endorsing bodies do not warrant its accuracy and disclaims any liability for its use.

[www.eauc.org.uk](http://www.eauc.org.uk)  
[info@eauc.org.uk](mailto:info@eauc.org.uk)