

Recycling CDA

Recycling is a process done worldwide. However, approximately 65% of the world population do not recycle, and knowing the benefits of recycling 40% of the world's population still doesn't. According to a website '9 out of 10 people who do not recycle, would recycle if made easier'. Shockingly, in 2003/4 30.5 million tonnes of waste were produced by UK households and only 17% was collected for recycling (according to defra.gov.uk). Every year the UK is producing more and more waste and now it is said we generate approximately 100 million tons of waste a year (total from households, industry and commercial) of which a large proportion can be recycled.

At school we have been studying pollution and the affects it has on the environment, what causes it and how we can avoid/prevent it from happening. Recycling is one of the ways but although it may benefit us, there are people against it because of the disadvantages. In this CDA I will include what Recycling is, why people do it, why people don't do it, the affects waste have on our environment and the advantages and disadvantages of recycling. I will also include my research of 'Bradley Stoke' (the town I live in) and how recycling is used in this area and how it can be improved, and how people can be more aware of the benefits. I will also include my opinion if I think recycling is good or whether I think it is bad.

What is recycling?

Recycling is converting waste products into new materials, such as recycling old newspapers to make new paper

How does recycling help the environment?

- Recycling reduces landfills.

A definition of what a landfill is (given on Wikipedia): 'A landfill, also known as a dump or rubbish dump (and historically as a [midden](#)), is a site for the disposal of waste materials by burial and is the oldest form of waste treatment.'

Microbes act on the waste as the material begins to break down, and together with chemical reactions, gas is produced. This gas is approximately 40%-60% methane, and the remaining gas mostly carbon dioxide. The gas also has nitrogen, oxygen, water vapour, sulphur and other condiments.

Methane in the atmosphere is a powerful greenhouse gas; the gas is between 20 to 50 times more effective at trapping heat



in the atmosphere than carbon dioxide. So by reducing landfills, less carbon dioxide and methane are realised into the atmosphere and therefore

- Recycling reduces contamination.

Contamination is when unwanted substances mix with materials.

When mobile phones and other electrical devices are thrown away, the batteries inside are very harmful towards the environment. The chemicals can harm the environment and humans if come in contact (swallowing or breathing in the atmosphere). However, unfortunately these chemicals may reach some of our foods such as food and other seafood. This is because the water and air become contaminated by these substances, as the water passes over these components and the chemicals leak into the soil and the water underground. In the end, the chemicals underground spread and soon contaminate streams, wells and even rivers.

- Recycling saves resources

To make paper and cardboard (etc), trees have to be chopped and due to this there has to be reforestation (the planting of new trees) and that may take a long time for the trees to grow. Chopping down trees will take away the habitats of animals, and more species may become extinct, therefore reducing the biodiversity.

If newspapers, paper, junk mail etc come from recycled materials, then a lot of trees are saved, and therefore habitats are also saved and so are many species of animals. This means that recycling can help increase biodiversity and reduce extinction of animals and plants.

(<http://vlad.tribnet.com/img/37ce7d4d5358f0641f6736858c906fd0.jpg>)

What things can be recycled?

Many things can be recycled today such as:

- Paper products (books, cardboard boxes, wrapping paper, shredded paper etc)
- DIY and garden (bricks and building rubble and soil)
- Glass (bottles, jars, sheet glass etc)
- Metals (aerosols, food cans, tin foil etc)
- Liquid and chemicals (paint and engine oil)

- Plastic (carrier bags, yoghurt pots, shampoo bottles, plastic detergent bottles etc)
- Textiles (clothes and shoes)
- Electronics (dishwashers, computer monitors, batteries, television sets etc)

Other (beds, tables, CDs, bicycles, toys, keys, musical instruments, video tapes etc)

This image represents how shoes can be turned into bicycle tires due to recycling
(<http://everydaytrash.files.wordpress>)

Although there are many things that can be recycled, not all of them are available for collection by your local council.

The following items are accepted by South Gloucestershire to be collected (Bradley Stoke' s council)

- Aerosol cans
- Batteries/Car batteries/household batteries
- Clothes
- Drinks cans
- Glass
- Kitchen foil

Paper

- Recycling textiles
- Shoes

(<http://www.junkyardsymphony.com/recycle%20logo.jp>)

Why do people recycle?

People recycle for various different reasons. Some believe that it will help save the environment, whilst others believe it will reduce costs, and some people believe that if they recycle, then the earth will be a cleaner place. Also, many people recycle so that new, useful things are made out of useless waste, and

therefore resources are more sustainable. In some places, recycling is very easy, and so people can recycle more readily and with less effort.

People believe that materials are wasted if they are just going to be burnt in the end at landfills (also causing pollution in the atmosphere). The image on the left represents the percentage of each material that is thrown away in the UK. These materials could be recycled and used to make a variety of different products.

(<http://www.recycling-guide.org.uk/images/589496/template/rubbishbin-diagram.gif>)

Why don't some people
recycle?

As I mentioned before, 40% of people who know the benefits of recycling, still don't recycle. This is because many people are against recycling and believe that the negatives of recycling outweigh the benefits of recycling. On the other hand, many people are not able to recycle as recycle programs are not available in the area they are living. Also, like I mentioned before 9 out of 10 people would recycle if made easier to do so. So, many people believe that recycling takes a lot of effort and isn't worth the energy. Another reason is because some people do not have enough space in their homes to have separate bins for recycling, especially if they need to have different bins for plastic, glass and aluminium etc. Additionally, some people don't recycle simply because they aren't informed about recycling- they don't know how it works and what the benefits may be.

Disadvantages of recycling are that there is a high cost of the collection of the material and also the treatment of it, and also, there is high energy costs involved in reprocessing. Furthermore, recycling can cause a lot of pollution as a lot of transport is required to move the recycled items from place to place (Taking to a recycled centre that can be miles away and then separated and taken to different recycling plants, depending on the material). So some people argue that recycling is bad for the environment. Although, recycling is said to reduce the amount of trees being chopped down, many people believe that it doesn't make a difference. This is thought to be because the places where the recycling plants are built had to be cleared of trees and plants, and therefore trees are being cut down anyway, and recycling is thought to be pointless in helping save trees and other plants.

What is the process of recycling?

1. Collecting recyclable materials from areas is the first step in the recycling process. In order for the materials to be taken for recycling, it must be put inside a special recycling box with the recycling symbol. So that it is clear what is to be recycled and not thrown away with other waste (waste which goes into landfills).

<- a typical recycling bin with the recycling symbol
(<http://www.brevardcounty.us/swr/images/green%20bin>).

2. The second step in the recycling process is sorting out the materials into each material (such as paper with paper and glass with glass). Each material group will then be sold to manufacturers who will then turn these materials into new products.

(<http://media.collegepublisher.com/media/paper968/stills/7y8ep451.jpg>)

3. The third step of the recycling process is manufacturing of the product. A lot of products today are part or fully made out of recycled materials. Whether its clothes or newspapers and plastic bottles or paper towels.

(<http://www.acerrecycled.com/images/plastics%20step%201.jpg>)

4. Finally, the last step of the recycling process is the final selling to customers. Customers have a choice whether to buy recycled materials or not, and recycled materials are clearly labelled that they are.

(<http://www.ecostreet.com/blog/wp-content/uploads/2010/04/EcoForce-peg-basket-low-res.jpg>)

Method

I conducted a questionnaire in my town called 'Bradley Stoke', to find out people's views on recycling and how they think the services are. I asked 10 people the questionnaire.

What I want to get out of this questionnaire, is how the people of Bradley Stoke's awareness is regarding recycling and the benefits and disadvantages of the process. Following the results, I will draw conclusions about their recycling habits.

The Questionnaire:

Do you recycle?

1. Yes 2. Yes 3. Yes 4. Yes 5. Yes 6. No 7. Yes 8. Yes 9. No 10. Yes

What do you recycle?

1. Cardboard, paper, glass 2. Bottles, paper, food 3. Paper, food, aluminium
4. Bottles 5. Paper and cardboard 6. - 7. Paper and glass 8. Paper 9.
- 10. Paper and cardboard

Do you have a local recycling bank?

1. Yes 2. Yes 3. Yes 4. Yes 5. Yes 6. Yes 7. No 8. Yes 9. Yes 10. No

What can your area do to improve its recycling services?

1. Recycle more often 2. Recycle More often- food waste 3. Increase awareness
4. Recycle more often 5. Teach more at school 6. Make it easier 7. Have
more recycling banks 8. Recycle more often 9. Recycling trucks should
collect more often 10. Recycle more often

Do you think recycling is good?

1. Yes 2. Yes 3. Yes 4. Yes 5. I don' t know 6. Yes 7. No 8. Yes 9. No
10. Maybe

If yes, why is it good? If no, why is it bad?

1. Good for the environment 2. Good for the environment 3. Good for the
environment 4. Saves money 5. I' m not sure 6. Saves trees 7. Waste of
time and money 8. Saves natural resources 9. Waste of money and time 10.
There are positives and negatives

What can Bradley Stoke do to increase awareness and encourage recycling?

1. Teach in schools 2. Teach in schools 3. Have community events about
recycling 4. Increase amount of recycling banks 5. I don' t know 6. Sell
more recyclable items 7. Teach in school 8. Post leaflets through door
9. Sell more recyclable items 10. I don' t know

Are there any disadvantages of recycling? If yes, what?

1. Yes, costs a lot of money 2. Yes, unhygienic 3. Yes, Costs a lot of money
4. Yes, takes a long time 5. I don' t know 6. Yes, still causes pollution

7. Yes, Complicated process 8. Yes, costs a lot of money 9. Yes, makes pollution 10. Yes, costs a lot of money

How often do you recycle?

1. Once a week 2. Once a week 3. Two times a week 4. Once a week 5. I don't know 6. Never 7. Three times a week 8. I don't know 9. Never 10. I don't know

Do you recycle?

I asked 10 people the question 'do you recycle?', and as the graph above shows, 80% of the 10 people asked recycled (8 people) and 20% of the 10 people didn't (2 people). This graph shows that my results suggest that the majority of people recycle. However, that may not be true (explained in depth during the evaluation).

Do you have a local recycling bank?

My results show that 80% of the people asked do have a recycling bank whereas 20% do not. This result shows that the environment is being well kept and reserved by the government however, the 20% suggests room for improvement for areas with no recycling banks. However, the 20% (2 people) may not actually know where the recycling bank is, rather than it being a fault of the local environmental council, therefore a governmental leafleting system could be put in place to raise awareness of the recycling banks and being environmentally friendly in general.

Do you think recycling is good?

The graph above shows that 60% of people asked if they thought recycling was good said yes (6 people), 20% said no (2 people), 10% said I don't know (1 person) and 10% said maybe (1 person). The graph above suggests that more people are certain that recycling is good than it is bad, and some people aren't certain, whether it's because they aren't aware of what recycling is and the benefits and negatives, or whether they don't know if there are more positives than negatives. On the other hand, these results cannot determine the results of the whole nation, but we can predict the responses.

What can your area do to improve its recycling services?

<u>Perso</u>	<u>Response</u>
<u>n</u>	
1	Recycle more often
2	Recycle more often - food waste
3	Increase awareness
4	Recycle more often
5	Teach more at school
6	Make it easier
7	Have more recycling banks
8	Recycle more often
9	Recycling trucks should collect more often
10	Recycle more often

The table above shows the responses I got from the 10 people when asked the question 'what can your area do to improve its recycling services'. The most common answer received was 'Recycle more often'. This answer can imply that it is the people's responsibility to recycle and that people aren't recycling enough but are willing to do so. The other responses such as 'make it easier' and 'have more recycling banks' suggest that it is the fault of the local

environmental council and that it is their responsibility to encourage people to recycle, by making it more easier and common in the area. Linking it to the answer 'recycle more often' both answers advocate that some people want to recycle, but are not able to do so as recycling is not readily available and that also 'recycling trucks should collect more often.

Evaluation & Conclusion

I believe that a questionnaire was the best possible way I could research recycling in my local area. This is because I could then gather opinions from the people who live in Bradley Stoke, who are the people who do the recycling. By carrying out a questionnaire, it enabled me to have a further understanding of what people already know about recycling and whether it is a good or bad thing. It allowed me to be able to draw conclusions about how the local council is providing for Bradley Stoke's recycling needs and what people believe should be improved and how it can be improved.

The method of investigation used is hard to judge by 'reliability' and 'validity'. This is because unless the questions didn't reflect the subject of reliability and taken people's opinions, a questionnaire cannot really be incorrect. For reliability I couldn't have repeated the same questionnaire on each person, as the aim of the questionnaire was to gather their personal views on recycling and what they do presently. However, a way to be reliable was picking out an anomaly during the responses given and describing the reason why that person had that certain view on recycling.

The important thing when doing a questionnaire is by keeping it valid. I kept the questionnaire valid by only having one variable; the one variable was the person who was asked. I asked each person the same question, and didn't add change the questionnaire at all. This made it easier for me to compare the responses and draw to conclusions.

A way I could extend my research is by asking more people the questionnaire, as this would make the final result of all the responses more dependable and I would have a clearer understanding of the views of people in Bradley Stoke. My graph showed that 6 out of the 10 people recycled, on the other hand, although my graph suggests that 60% of people recycle, it isn't very accurate. I know this because 35% of the world's population do not. The more people I ask, the more accurate the result. Also, the method wasn't completely fair. This is because the people I asked were the same age, so I didn't have a wide variety of different people taking the questionnaire. Age is an important factor because hypothetically, teenagers (14, 15 years of age) wouldn't be responsible for the recycling in their homes (maybe a parent/guardian would be) and therefore would have a lesser knowledge of recycling and what they recycle and how often. Anotherway I could

extend my research is by asking a group of people one age the questionnaire and asking the same amount of people in another age the same questionnaire and compare the responses and see whether people of different ages have different views on recycling and why. Additionally, a further way I could extend my research is by asking people who recycle the questionnaire and asking the same amount of people who don't recycle the same questionnaire. This would allow me to get a better view on why some people recycle and why some people don't, and what would make a better service for recycling.

One thing I would do to improve the questionnaire is by asking more questions that would get a larger variety of responses. For instance, I could have asked the question 'would you like to know more about recycling?' This question is good because then I would have an idea regarding who is interested about recycling and who isn't, and that would evidently show the reasons why some people recycle and some don't.

With reference to the results of the questionnaire and other research that I have done, I conclude that in my opinion, recycling has more benefits than negatives in the long term.

I have come to this conclusion due to the fact that we are helping the environment and saving resources. 6 out of the 10 people questioned believed that recycling was a good thing, 1 person said 'maybe', 1 person said 'I don't know' and only 2 people were certain that it isn't. Like I had written previously, this result suggests that the majority of people think that recycling is good, but the results cannot be generalised to what the whole nation thinks, as it might just be the people that were asked. 8 out of 10 people asked if they recycled, did recycle, and if only 6 people were confident that recycling was a good thing, then some people must recycle, even though they are unaware of the benefits and negatives, just because of a large amount of people locally recycling and maybe they are assuming that it is a good thing to do.

I believe that saving the earth's natural resources is a very good thing to do, and we should always try to do what's best for the environment if and when we are given the choice. Furthermore, recycling reduces the amount of landfills, that cause pollution and contaminates areas and things (rivers, wells, seafood etc). One person's response to how Bradley Stoke can improve its recycling services was to make it easier to do so and another response was to increase amounts of recycling banks. So I believe that if recycling is more readily available and easier to do, more people would recycle. Another example is that someone who didn't recycle said they didn't have a local recycling bank, and a way to improve recycling services was to have more recycling banks. Also, they believed

that recycling is a complicated process. So if recycling is made easier, there is a possibility that they would recycle.

Personally, I believe that the only major disadvantage of recycling is the cost involved in the process. 4 out of the 10 people I asked agree with me that a disadvantage of recycling is that it 'costs a lot of money'. Also, apparently recycled products are more expensive than new products. So people are encouraged to buy the same product, but a cheaper version. So unless costs go down, then recycling will be seen as something more beneficial for not only the environment, but for money saving.

One person questioned, believed that in order for Bradley Stoke to improve its recycling service was to increase awareness and another person said to teach it more at school. I agree with both of these answers because increasing awareness and letting people know from an early age about the benefits of recycling will encourage them to do so in the present and the future. Increasing awareness is good because, as the costs of the process of recycling is high, then people need to be persuaded that the benefits are more overpowering than the negatives.

Finally, I would like to clarify that before I had to do research about recycling, I was more unaware of the benefits and also the negatives of recycling, and I didn't have a deep understanding of landfills and how they are bad towards the environment. But still, taking into account the negatives that I have learnt through my research and the positives of recycling, I still think it is a more beneficial thing to do. Until there is increased awareness, many people will be uninformed by means of why people should recycle.

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Glossary

Atmosphere– ‘A particular environment or surrounding influence’ (definition from Google).

Biodiversity– The variation of animal life and plant in a particular habitat, or in the world (Overall).

Chemical reactions– A process that leads to the change of one chemical substance to another.

Contamination– When unwanted substances mix with materials.

Greenhouse gas– ‘A gas that contributes to the greenhouse effect by absorbing infrared radiation’ (definition from Google).

Landfill– A site for waste disposal by burial.

Microbes – organisms that are microscopic (too small to be seen by the human eye).

Pollution– unwanted condition of the natural environment being contaminated as a result of human activities.

Recycling- Converting waste products into new materials, such as recycling old newspapers to make new paper.

Reforestation- The replanting of a forest that has been reduced by cutting or a forest fire.