



## Analysis Of The Utilization Of Used Plastic Bottles As Trash Cans

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### Article Info

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### ABSTRACT

Plastic waste is an example of inorganic waste whose use is so large that it requires treatment so that its presence does not have a negative impact on the environment, such as accumulation of waste, resulting in environmental pollution. Anticipatory and preventive steps are needed to overcome this problem, one of the appropriate strategies is 3R Reduce, Reuse and Recycle, which we should apply in dealing with plastic waste. Examples of plastic waste: plastic bottles, glass bottles, plastic bags, etc. Not all places have rubbish disposal facilities. Especially nowadays, rubbish dumps are a necessity, so rubbish dumps are needed. The solution to this problem is to make a trash can from used gallons, which can be made easily, with tools and materials that are easy to obtain. The raw materials used do not cause problems, because inorganic waste is always available every day.

#### Keywords:

Plastic Waste, Trash Can

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## INTRODUCTION

The problem that often arises around where I live is that there is a lot of plastic waste that is thrown away carelessly. Waste is one of the problems that needs to be given attention and addressed. The existence of human life that utilizes various kinds of products that exist today has the potential to produce various kinds of waste. Be it household, industrial, medical, tourism and various other sectors, the increasing number of people will be directly proportional to daily needs and result in an increase in the waste produced.

Waste is classified into organic waste and inorganic waste (Purwendro & Nurhidayat, 2006). Organic waste is waste produced from biological materials that can be degraded by microbes or are biodegradable. Meanwhile, inorganic waste is waste produced from non-biological materials, either synthetic or the result of technological processing of mining materials. Plastic waste is an example of inorganic waste where its use is so large that it requires treatment so that its presence does not have a negative impact on the environment, such as accumulation of waste, resulting in environmental pollution. Anticipatory and preventive steps are needed to overcome this problem, one of the appropriate strategies is 3R Reduce, Reuse and Recycle, which we should apply in dealing with plastic waste. Examples of plastic waste: plastic bottles, glass bottles, plastic bags, etc.

Plastic is widely used in beverage bottles and packaging for everyday purposes. The nature of plastic which is lighter, practical and easy to produce increases its use, and Indonesia's population growth also increases its production. Used plastic packaging is

immediately thrown away in unprocessed form and becomes plastic waste. In almost all, even all countries, there is a waste problem, but in developed countries where people are aware of ecology and have sufficient information and technology, people have succeeded in managing waste.

## METHODS

### STEAM Stages

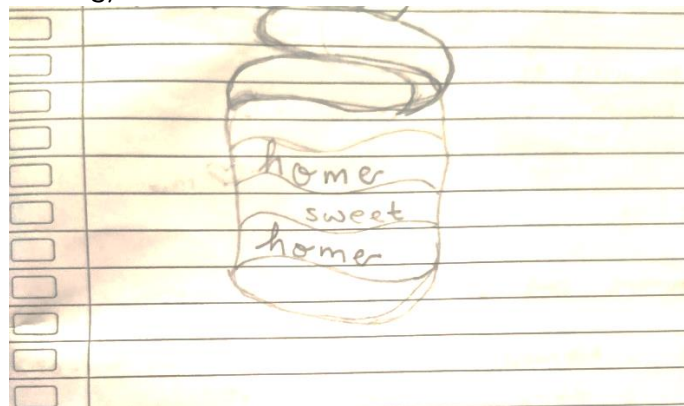
#### a. Ask

Waste is a problem that needs to be given attention and addressed. The existence of human life that utilizes various kinds of products that exist today has the potential to produce various kinds of waste, for example plastic bottle waste around the house which cannot be decomposed and rots. This plastic waste can have a negative impact if it is not processed properly.

#### b. Imagine (Imagining the Product)

Inorganic waste does not only come from industry, medical, tourism, but also comes from household waste which we often use. Plastic waste can be turned into useful items such as trash cans from used bottles or used gallons.

#### c. Plan (Product Planning)



#### d. Create (Creating a Product)

##### Tools and materials

- a. Gallon Le Minerale (can be used Aqua)
- b. Scissors
- c. Whiteboard marker
- d. Paintbrush
- e. Pилоx
- f. Watercolor

##### Ways of making

1. Prepare a gallon of le minerale then clean the label
2. Mark what will be cut later using a marker
3. Cut the marked part using scissors
4. If it's not neat, you can trim the lid and bottom using scissors
5. Pилоx the top of the gallon
6. Pилоx is also the bottom
7. Then dry it in the open

### STEAM aspect

- a. Science : Processing used bottles
- b. Technology : Media to disseminate information about waste and also as media to disseminate how to process waste, especially used drink bottles optimally
- c. Engineering : Design of the product to be made
- d. Art : The decoration on the product
- e. Mathematics : Measuring the top and bottom of a gallon

### RESULTS AND DISCUSSION

The existence of human life that utilizes various kinds of products that exist today has the potential to produce various kinds of waste. Be it household, industrial, medical, tourism and various other sectors, the increasing number of people will be directly proportional to daily needs and result in an increase in the waste produced. Utilizing used bottles or gallons as trash cans is the right step to reduce plastic waste around your living environment. The raw materials in making these trash cans must be processed properly so that when they go through several processes they are not damaged. The steps for making a trash can must be paid attention to so that the results are as we want.

### CONCLUSION

Waste is a problem that needs to be given attention and addressed. The existence of human life that uses various kinds of products has the potential to produce various kinds of waste. Waste processing is not only the responsibility of the community, but is the responsibility of companies, waste producers are also obliged to manage waste, as regulated in the Law on Government Waste Responsibility Number 18 of 2008. Even though this authority is general, waste management is still not optimal. Waste must be processed optimally so as not to cause negative impacts on the surrounding environment. Waste can be processed using the 3Rs, Reduce, Reuse and Recycle. Processing used bottles or gallons as trash cans can help reduce existing plastic waste.

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