

## **Approaches to Fight Global Warming**

### 1. Motivation behind Research Paper

Have you ever thought about global warming? I am going to research about global warming. According to Kansai Electric Power (December 2015), global warming is a phenomenon where the temperature rises on the earth. The earth that we live in is warmed by sunlight and catches the heat escaping space from earth. They are called greenhouse gases. Greenhouse gas makes us comfortable to live. However, If greenhouse gases increase, the temperature of the earth can't adjust and global warming is progressing. According to the Ministry of the Environment, Climate change has had a negative influence in recent years. For example, glacial melt, rise in sea level, impacts of floods and droughts. According to Kansai Electric Power(December 2015), Carbon dioxide is one of the main causes. Carbon dioxide is produced by burning garbage. Methane gas is the second of the causes. Methane gas generates when natural gas dig out. Therefore, I want to protect the earth and I think about what I should do. I worked on global warming countermeasures.

### 2. Introduction

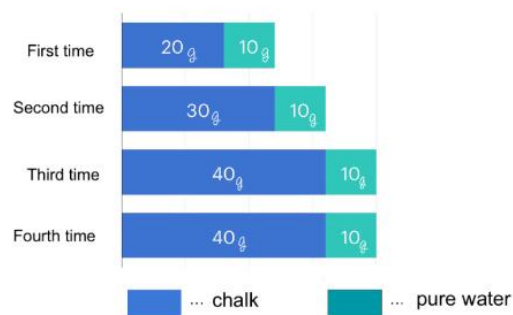
Global warming is a serious problem. I research eco because I want to reduce carbon dioxide. Eco is a good way to reduce carbon dioxide and prevent global warming. As an example, we are turning off the TV and appropriately setting the temperature of the air conditioner. It is a small measure but it can help the earth from

global warming. I searched for some measures and I noticed chalk. Chalk is often used in school. Chalk's main component is calcium carbonate. I thought burning chalk is producing carbon dioxide so reusing chalk is related to reducing carbon dioxide.

### 3. Results and Analysis

I share an experiment method. First, shatter the chalk in a mortar. Second, using charts and beakers. Then measure the chalk powder and pure water that you need . After that mix the measuring things. Finally, make a round shape and natural drying for three days. When it hardens, it is finished.

I tried four experiments. First experiment, I experimented with chalk powder for 20g and pure water for 10g. When I mix it, it is thick. When it hardened, chalk's visuals were bad. Second experiment, I experimented with chalk powder for 30g and pure water for 10g. Water is less than the first experiment so chalk was harder than the first experiment when mixed. However, chalk's visuals were bad too. Third experiment, I experimented with chalk powder for 40g and pure water for 10g. Water is less than the second experiment so chalk was harder than the second experiment. The third experiment is different from the first experiment and the second experiment. Chalk didn't break but it was not smooth when I touched the chalk. Fourth experiment, I experimented with chalk powder for 40g and pure water for 10g. The fourth experiment is the same amount of chalk as the third experiment but using things is different. Fourth experiment uses tapioca straw. I think tapioca straw can pull it into shape. The chalk sticks to the straw.



**Amount of chalk powder and water**

*Figure 1. Amount of chalk powder and water*

Next I collect some opinions that compare three pieces of chalk from the teacher because I want to know what is good chalk. Using the first chalk and second chalk, I can't write. It was easy to break. The third chalk is in bad shape but it is stronger than the first chalk and the second chalk. When the teacher used the third chalk, the teacher said the third chalk is better than the first chalk and the second chalk. It is comfortable to write. The third chalk is the best of the three. Teacher told me some good and bad opinions. As a result, we could not make the perfect chalk so all experiments are fiasco.

#### 4. Conclusion and Future Problems

Based on the results of this experiment, I couldn't make a perfect chalk. As a result, I don't know if I can reuse chalk. However, I thought of some methods to reuse by using chalk and I can suggest some methods to protect the earth from global warming. Through this inquiry I learned a lot of new knowledge about global warming before I researched it and I could think of many methods. I felt it is

important for us to try some methods about global warming because we should stop this problem. If we can stop this problem, our life will be more great.

## 5. Reflection

Through a series of experiments, I could not perfect the experiment so I don't know if the reuse experiment was really successful. However I think I could get the best out of the possibility of reuse. Through this inquiry learning, I learned about global warming deeply before I studied this inquiry and I thought about a lot of measures. I feel scared to proceed with global warming. Therefore, It is important to work on some measures with everyone. I think our individual actions can change the future.

## 6. Work Cited

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