

Investigatory project

[Environment](#), [Water](#)



Investigatory Project Presented to the Department of Science and Technology By: Coleen Sioson October 2012

A. Experiment Description In this investigatory project, we will use eggshells as an alternative ingredient in chalk production. The study is very efficient in these days because many people are in need of chalk especially the teachers because they use board chalks in school everyday. We noticed that the students and teachers consume many pieces of it, which is very expensive. So, we decided to make a chalk out of eggshells which is very affordable and can give an equal quality in the chalks that we buy in stores.

B. Statement of the problem This study aims to discover the use of eggshells in producing chalk in terms of the chalks whiteness and writing capabilities.

C. Significance of the study This study can give benefits to the community specially to the teachers, students and faculty members. This will help them to save money on buying commercial chalks because they can make their own chalks at home using materials that is easy to find and very cheap. This will also benefit to the people who are eating eggs daily because they can recycle the eggshells to make a chalk which they can use.

D. Hypothesis Eggshells can be used as an alternative ingredient in chalk production because it has the same characteristics and components in commercial chalk production. We use chalk in school everyday but the price of the chalk in stores are expensive so we decided to create an alternative board chalk made from eggshells which is cheaper and much easy to make.

E. Methodology Phase I The chalk is a white porous sedimentary rock, a form of sedimentary rock composed of mineral calcite. It forms under reasonably deep marine conditions from the gradual accumulation of minute calcite plates shed

belonging to the division of haptophytes. They function as a special calcium carbonate. Eggshell is another object that has the presence of calcium carbonate. It is used by animals to store their young in it and protect it. Some birds like the chicken force the eggs out while some wait for some time until it is out. The chicken egg is usually made as human food, and the others are left alone to give birth to life. Gathering Information Phase II while some wait for some time until it is out. The chicken egg is usually made as human food, and the others are left alone to give birth to life. The study used these materials to conduct the experiment. A mixing bowl to mix the water, powdered eggshells and flour together, a sheet of hard paper to mold the chalk to a cylindrical shape, mortar and pestle to crush the eggshells into fine powder, weighing scale to measure the amount of grams of eggshell powder and flour, a beaker to contain the amount of hot water, a teaspoon to measure the amount of hot water to be added on the mixture.

Instrumentation Phase III Get used eggshells and flour to produce the chalk. First, clean the eggshells, washed them and peeled of the skin. Then grind five pieces of eggshells using the mortar and pestle until they turn to very fine powder. Then get 40 grams of eggshells powder and 20 grams of flour and combined them in a bowl. Then heat a water in a beaker and add four teaspoons of hot water to the mixture of eggshell powder and flour. Mix together the mixture using the spoon until it becomes sticky and a little dry. Then move the mixture on a hard paper and mold it in a cylindrical shape. Then wait for two to three days until the chalk dries. Procedures Phase IV