

**PLEASE DO NOT WRITE ON  
Complete on your own paper.  
EVERYONE turns in a completed paper.**

# Investigating Density!

Two properties of matter are mass and volume. When mass is divided by volume, density is found. Density is defined as the amount of matter per unit of volume. There is a connection between density and the transfer of heat in fluids.

**In this investigation, you will determine the density for a given substance and hypothesize what can change density in a substance.**

## Part 1: Determining the density of clay

Part of the scientific process is creating a procedure for an investigation.

In part 1 of "Investigating Density," **you will create instructions for determining the density of the total piece of clay.**

Try to create instructions that are in paragraph form and do not simply list the instructions.

Once your procedure is created, follow it and **record your data in a data table.**

What are the variables you need to get density?  
What should go at the top of your table?

Total Piece of Clay			

**Have me check you off before you move on to part 2.**

## Part 2: Determining how density is changed when a substance broken into pieces

Now that you have determined the density of your total piece of clay, you will determine if breaking the clay into pieces will change the density. Write down your hypothesis.


**Hypothesis: If I break the piece of clay into 5 random size pieces, the density will \_\_\_\_\_.**

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**Part 2 continued**

Collect and organize your data. 5 random pieces of your clay. Test one at a time.

Piece #1			
Piece #2			

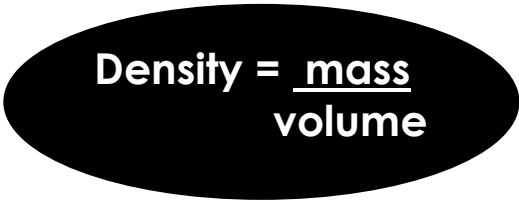


Write a conclusion about your findings. Use your data in your conclusion.

**Part 3: Determining how density is changed when a substance has heat/pressure added or removed**

To finalize your investigation into density, you will **write a paragraph that discusses how heat and pressure would affect the clay's density.**

We are not actually testing this but do write out your research.  
You may use your phone or chrome book.


$$\text{Density} = \frac{\text{mass}}{\text{volume}}$$