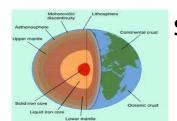


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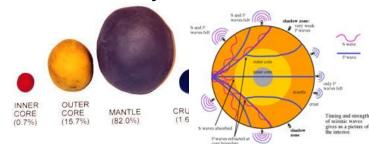


## Structure of Earth Unit Planner/Study Guide

 $D = M/V (m \div v)$ 

 $M = D \times V$ 

 $V = M/D (m \div d)$ 



Name: \_\_\_\_\_ Packet Score: \_\_\_\_\_/68

# Step 1: <u>Guaranteed</u> and <u>Viable</u> Things to Know?

Content Standard(s): Students will understand the relationship between properties of matter and Earth's structure.

**Unit Story:** All matter is made up of **atoms** that are far too small to see. Atoms are always in motion and the more energy they contain the faster they move. Atoms combine to form molecules. Matter is made up of **atoms** and **molecules** that have measurable **mass, volume,** and **density**. Density is a measure of the compactness of matter. It is the amount of matter (mass) per unit of volume. Density determines the way materials in a mixture are sorted. Sorting according to density results in the layering and structure of Earth's atmosphere, water, crust, and interior. Models are used to describe the structure of Earth.

#### **BOLDED Text** = Tested on CFA's

Normal Text = Not tested on CFA's

**Objective 1:** Examine the effects of density and particle size on the behavior of materials in mixtures.

- a. Compare the density of various objects to the density of known earth materials.
  - b. Calculate the density of earth materials (e.g., rocks, water, air).
  - c. Observe and describe the sorting of earth materials in a mixture based on density and particle size (e.g., sorting grains of sand of the same size with different densities, sort materials of different particle size with equal densities).
  - d. Relate the sorting of materials that can be observed in streambeds, road cuts, or beaches to the density and particle size of those materials.
  - e. Design and conduct an experiment that provides data on the natural sorting of various earth materials.

**Objective 2:** Analyze how density affects Earth's structure.

- a. Compare the densities of Earth's atmosphere, water, crust, and interior layers.
- b. Relate density to the relative positioning of Earth's atmosphere, water, crust, and interior.
- c. Model the layering of Earth's atmosphere, water, crust, and interior due to density differences.
- d. Distinguish between models of Earth with accurate and inaccurate attributes.

#### **Science PEAK Schedule:**

**Monday** Science Priority Day (I's Only)

<u>Tuesday</u> Course Content Support (Any Ticket)

**Thursday** Course Content Support (Any Ticket)

<u>Friday</u> Team Naomi Study Hall (Any Ticket)

### Step 2: Evidence of Learning

Common Formative Assessments	1 <sup>st</sup> Time (In Class)	2 <sup>nd</sup> Time (In PEAK)	3 <sup>rd</sup> Time (In PEAK)
CFA Quiz 1			
CFA Quiz 2			
Pre-Test %	Post Test %	Improvement %	

Pre-Test %	Post Test %	Improvement %