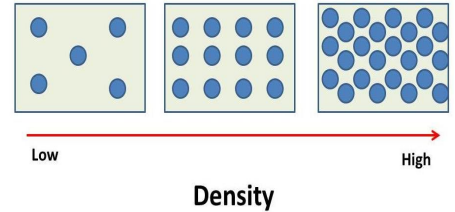


# Density One-Pager

Your task will be to complete a density “One-Pager” complete with explanations and drawings showing your knowledge of density as it relates to 10 ways we studied it this year. You can create your own One-Pager or use one of the two templates your teacher has for you. Before you start on designing your One-Pager, you must complete the following information. You may work alone or with a partner on this page, but not the One-Pager.



## The following 10 items should be on your One-Pager.

1. **Definition (p.264):** the amount of mass in a material per unit of volume

2. **Formula for and example with correct unit (p.89 & 264):**  $D = M / V$   
(come up with your own example)

3. **Density column labeled with at least 3 (specific) different liquids and their densities. (internet)**  
(Come up with your own - name of liquid and its density)

4. **Density of water (internet)**

1 g/mL

**Specific item w/ greater density:**

(Come up with your own.)

Solid substance & density

**Specific item w/ less density:**

(Come up with your own.)

Solid substance & density

5. **Thermal heat transfer (convection) (p.240 and 290):** The cooler liquid/gas at the top is more dense and sinks and forces the warmer and less dense liquid/gas to rise.

6. **Most dense and least dense planets (internet):** Earth is most dense at  $5.51 \text{ g/cm}^3$ ; Saturn is least dense at  $0.61 \text{ g/cm}^3$

7. **Layers of Earth (p.264 & 274):** Earth’s densest material sinks and forms the innermost layers, intermediate layers are between the bottom layer and least dense crust.

**OR**

Earth’s crust is least dense and sits on the mantle with a density of  $(3.9\text{-}5.0 \text{ g/cm}^3$  which sits on the cores with a density of  $11.1\text{-}13.0 \text{ g/cm}^3$ )

8. **Movement of the asthenosphere in Earth’s mantle (p.290):** Deep in the mantle, rocks heat up and expand and become less dense, rising upward. As the mantle cools, it becomes more dense and sinks. This movement moves the plates around.

9. **Subduction zones in plate tectonics (p.286):** When two tectonic plates converge, the more dense plate sinks below the other plate; this is called subduction.

10. **Natural gas vs. oil (p.134):** Oil and natural gas are less dense than surrounding rock and rise above the rock. The less dense natural gas settles on top of the more dense oil.