

**What is happening???**



# Density

*How much “stuff”  
crammed into  
how much space?*

# Density

*Usually used for solid and gas*

How much  
"stuff"



mass

crammed into



"per"

How much  
space



volume

$$\frac{\text{g}}{\text{mL}}$$

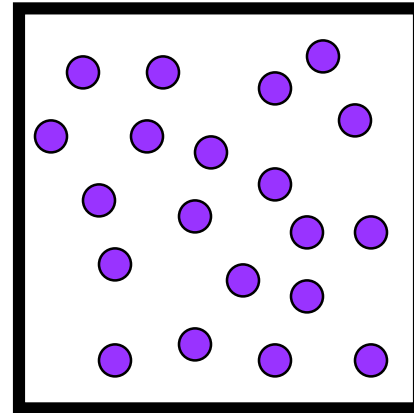
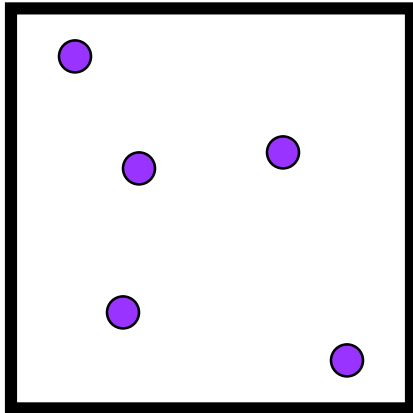
$$\frac{\text{g}}{\text{cm}^3}$$

$$\frac{\text{kg}}{\text{L}}$$

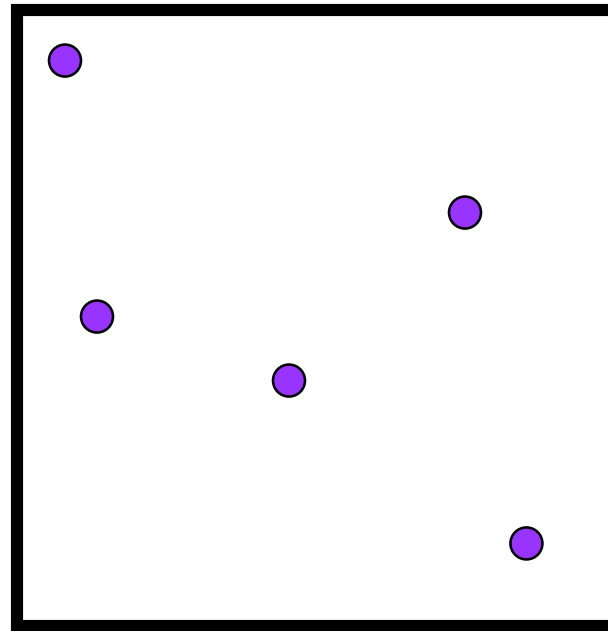
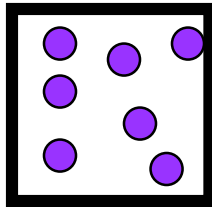
**REMEMBER: 1mL = 1cm<sup>3</sup>**

**Etc...**

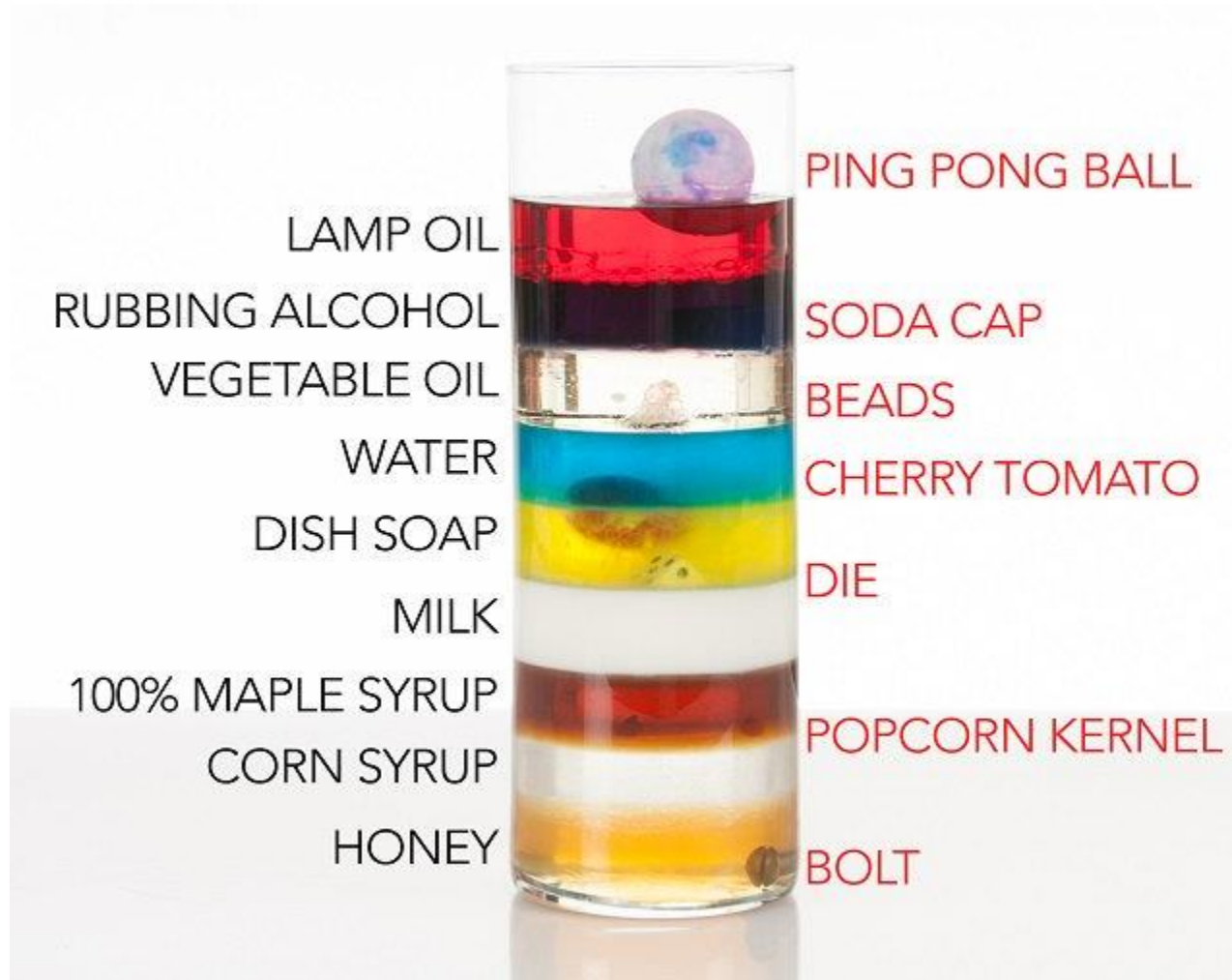
**Which one is more dense?**



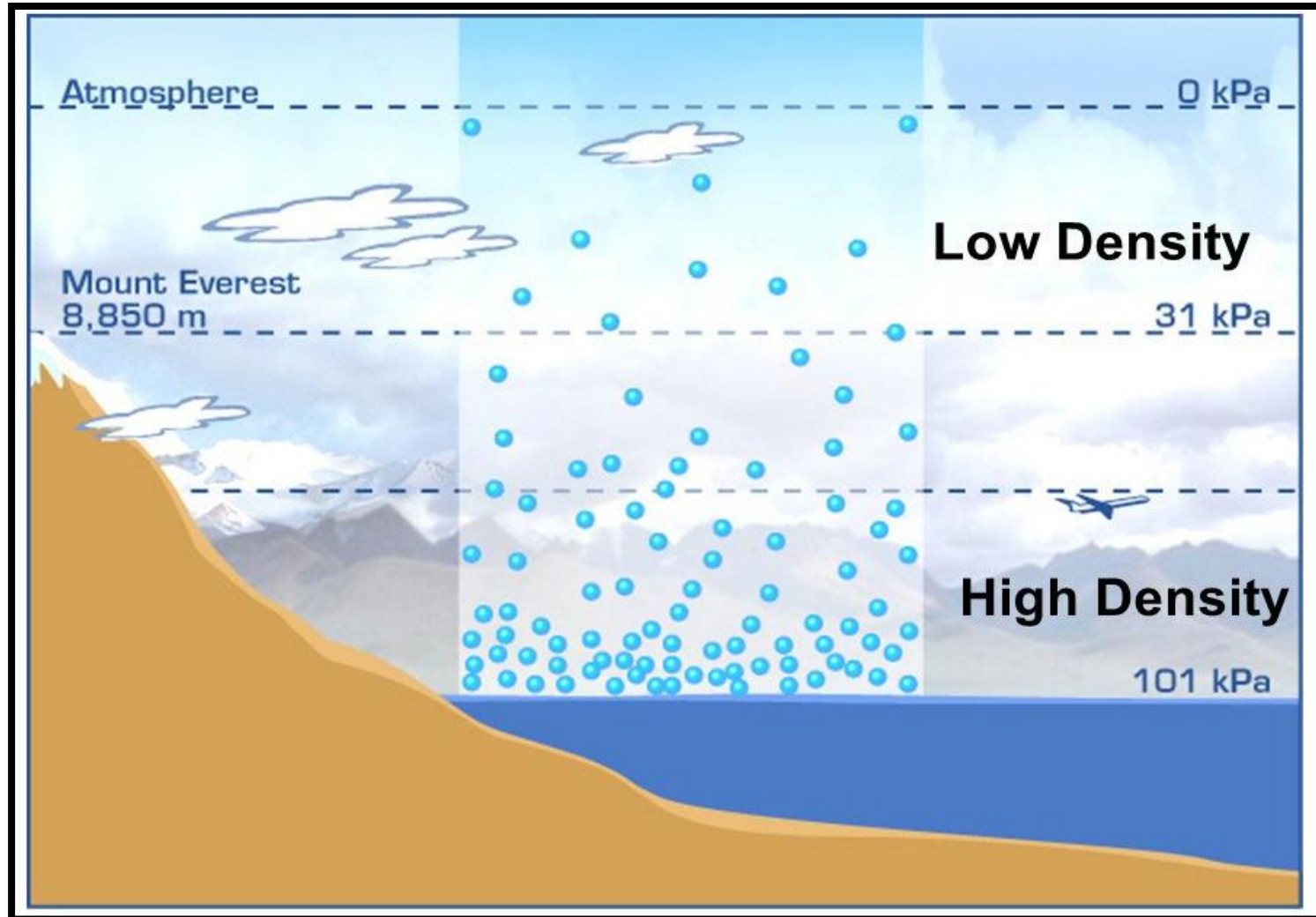
# Which one is more dense?



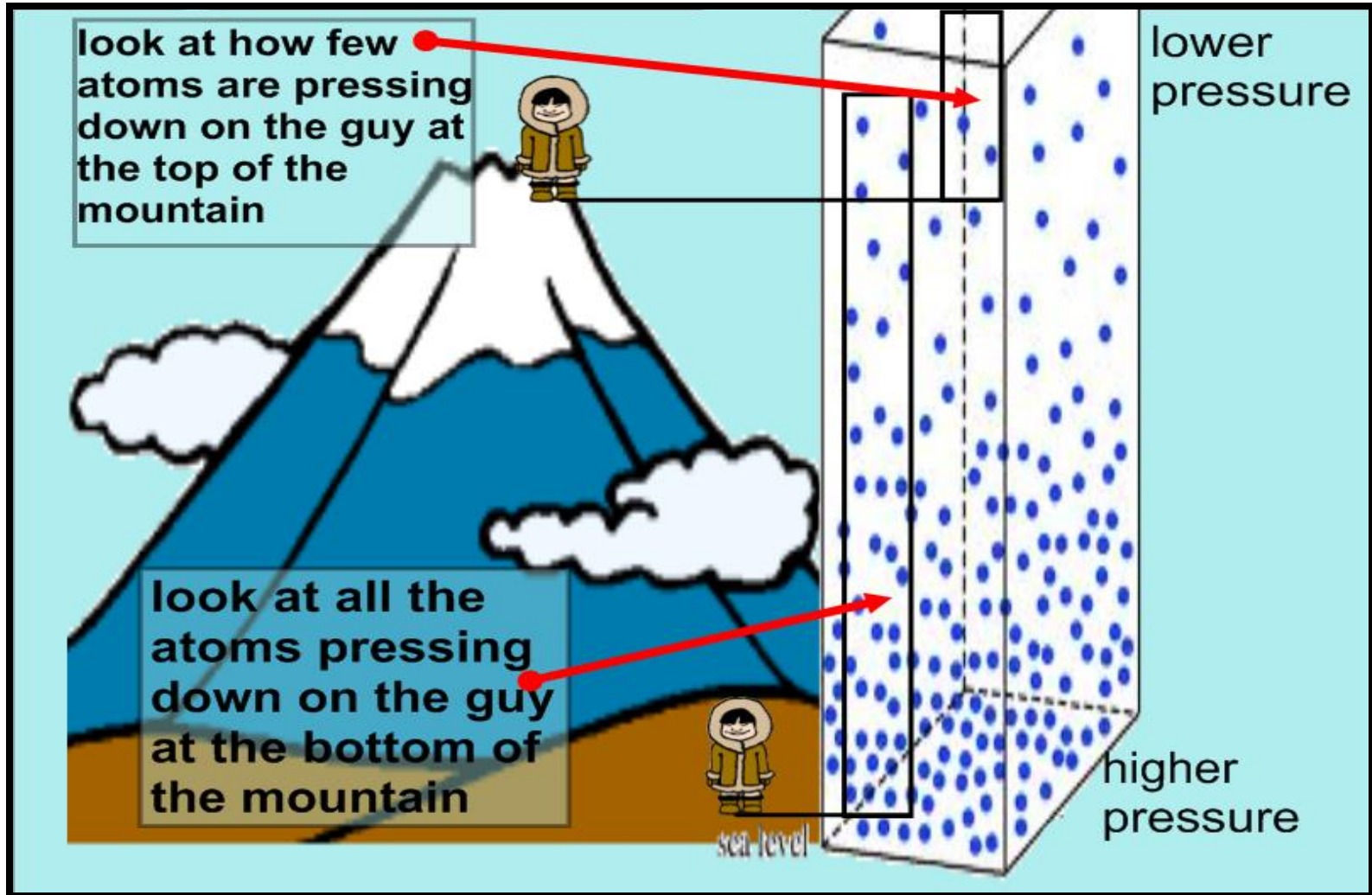
# Density of Liquids Not Just Solids



# Density of Air – Air Pressure



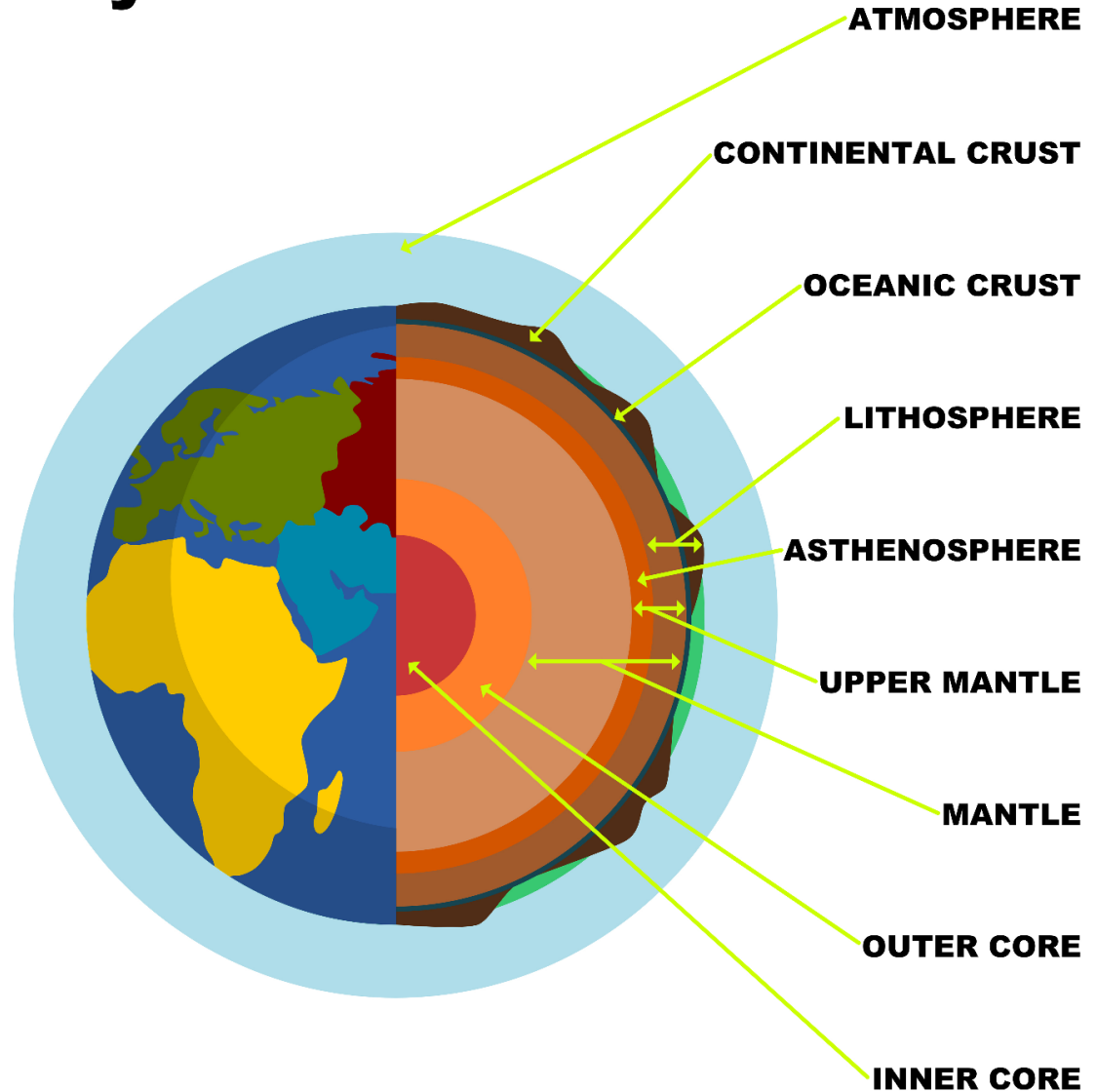
# Density of Air – Air Pressure



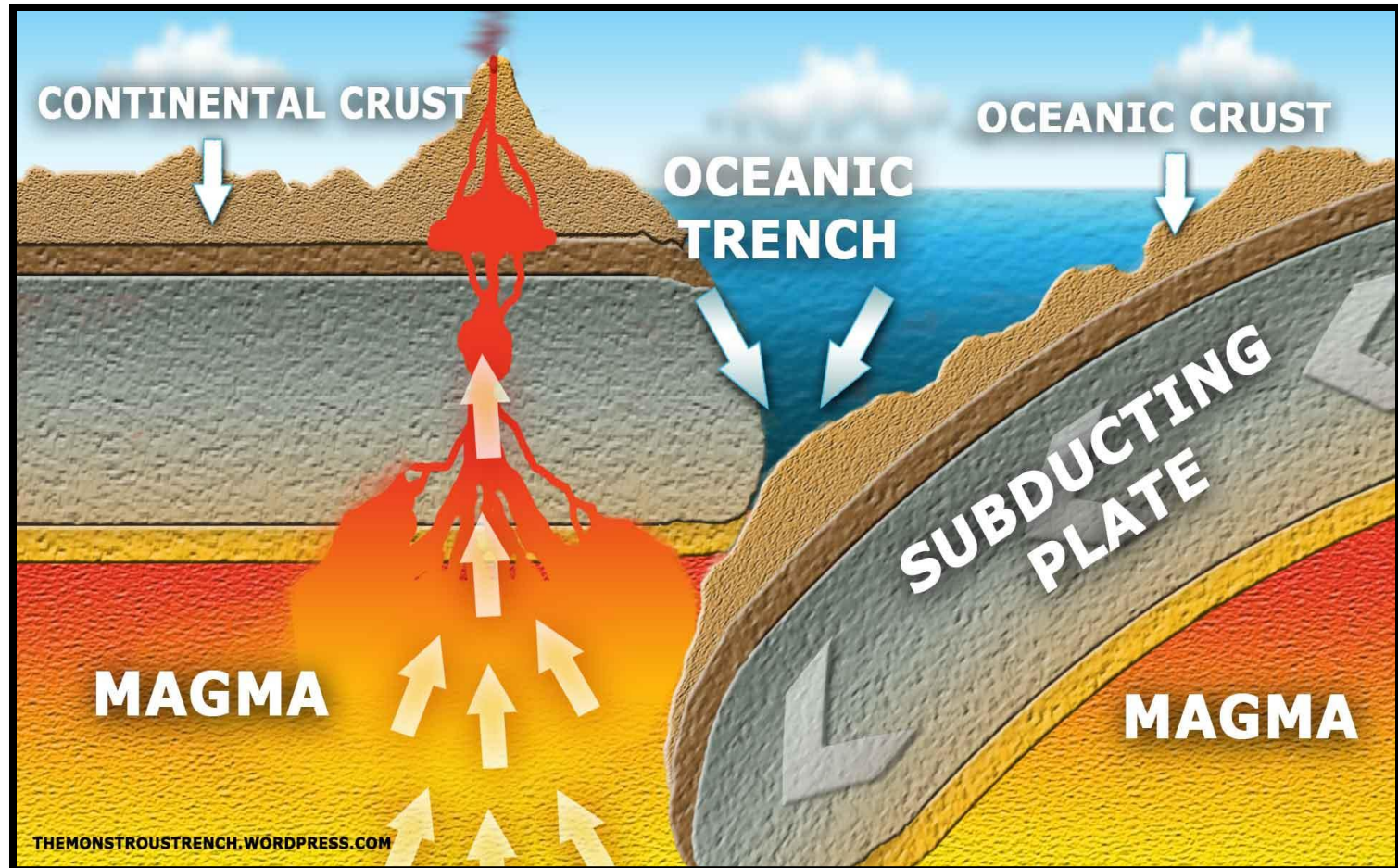


# Layers of the Earth

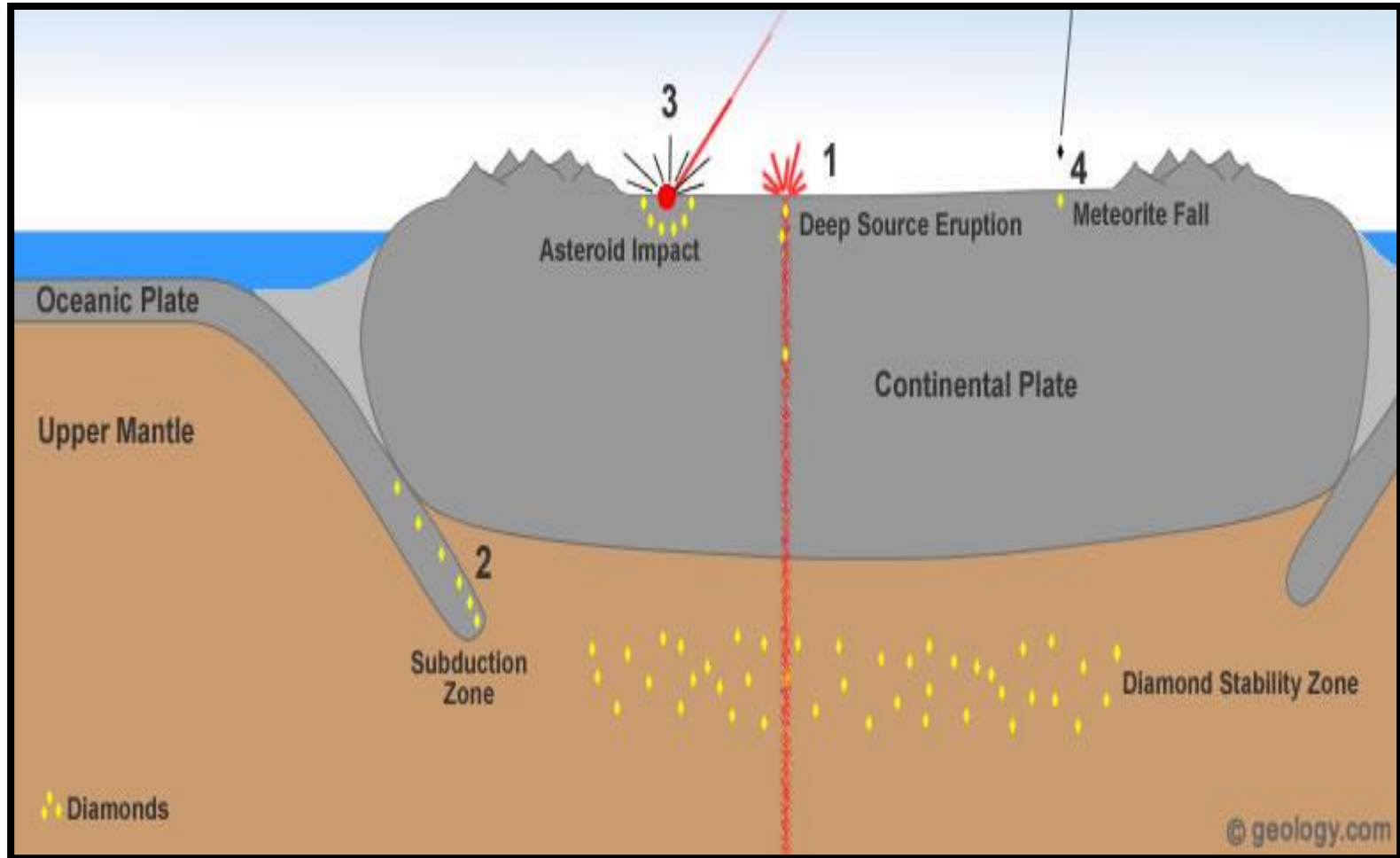
**Different  
densities  
lead to  
earth  
having  
layers**



# Denser plate goes under less dense plate



# One way diamonds get to the surface!



# Japan - 2013



# Japan - 2014



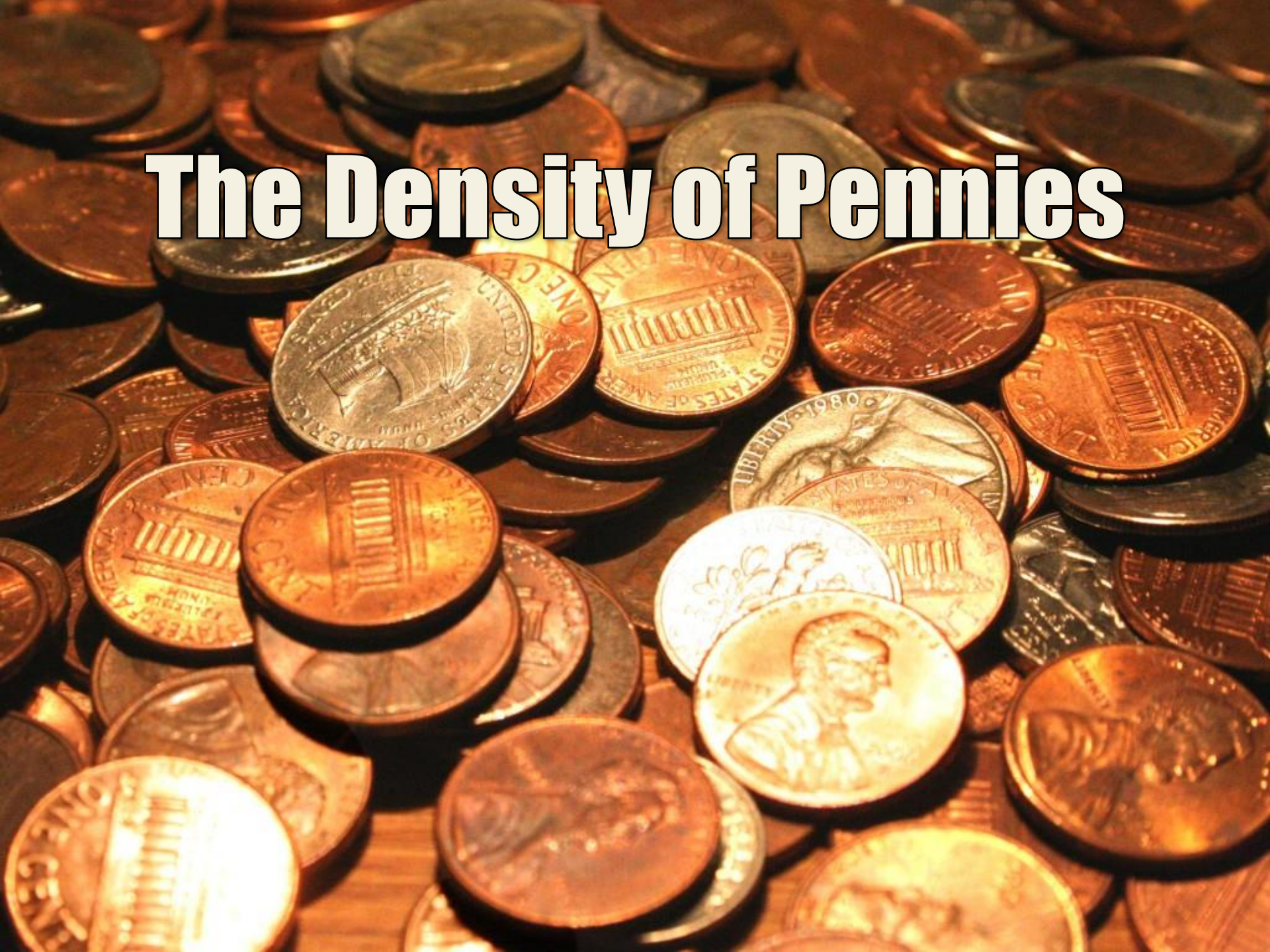
# A new island!



## Try these...

- 1) Jack has a rock. The rock has a density of 6.73 g/mL and a volume of 8cm<sup>3</sup>. What is the mass of the rock? (1 mL = 1cm<sup>3</sup>)
- 2) What is the volume of an object if the density is 1.45g/mL and it has a mass of 15.2 grams?
- 3) What is the density of a block if it has the following dimensions and it weighs 45.8 g? 12 cm long, 3 cm tall, and 6.5 cm wide

# The Density of Pennies





# Not all pennies are the same!

Some are 95% copper and 5% zinc  
Some are 2.4% copper and 97.6% zinc



<b>GROUP #</b>	<b>PRE-1982 % error</b>	<b>POST-1982 % error</b>
1		
2		
3		
4		
5		
6		
7		
8		