

Review for Earth & Density Test

Name _____

My Child Studied for 15 minutes X _____

Density: The amount of mass in a certain volume

Everything has a density measurement calculated by the formula of _____. (The grams are always on top and the first # you put in the calculator)

Circle one: Less dense things Float Sink because their molecules are more spread apart.

Circle one: More dense things Float Sink because their molecules are more squished together.

Circle one: Increasing the temperature will make molecules Expand Contract making them take up more space (bigger volume) but they will be less dense.

Circle One: Decreasing the temperature will make molecules Expand Contract making them take up less space (less volume) but they will be more dense.

Earth's materials are always sorted by _____ and _____.

That means that bigger and/or more dense items will be layers on the on the bottom and will sink first.

What would you use to find the MASS of something? _____

What would you use to find the VOLUME of an irregular shaped object? _____

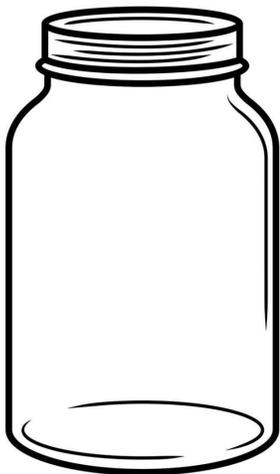
What would you use to find the VOLUME of a liquid? _____

What tool would you use to find the VOLUME of a square box? (LxWxH) _____

Calculate the density of a rock that has a mass of 25 g and 5 cm³. _____

Calculate the density of a liquid that has a mass of 500 mL and a volume of 250 g. _____

Calculate the volume of a marble if I put 30 mL of water in a graduated cylinder and when I drop the marble in, the water raises to 57 mL. What is the volume of the rock? _____



If I put different sizes of gravel and sand and pebbles in a jar filled with water and shake them up, what will the jar look like after it settles. Draw the layers in the jar below: (You should have 5 layers including air)

- water, sand, gravel, pebbles, air,

(Sand is the smallest, gravel is bigger than sand and pebbles are bigger than gravel)

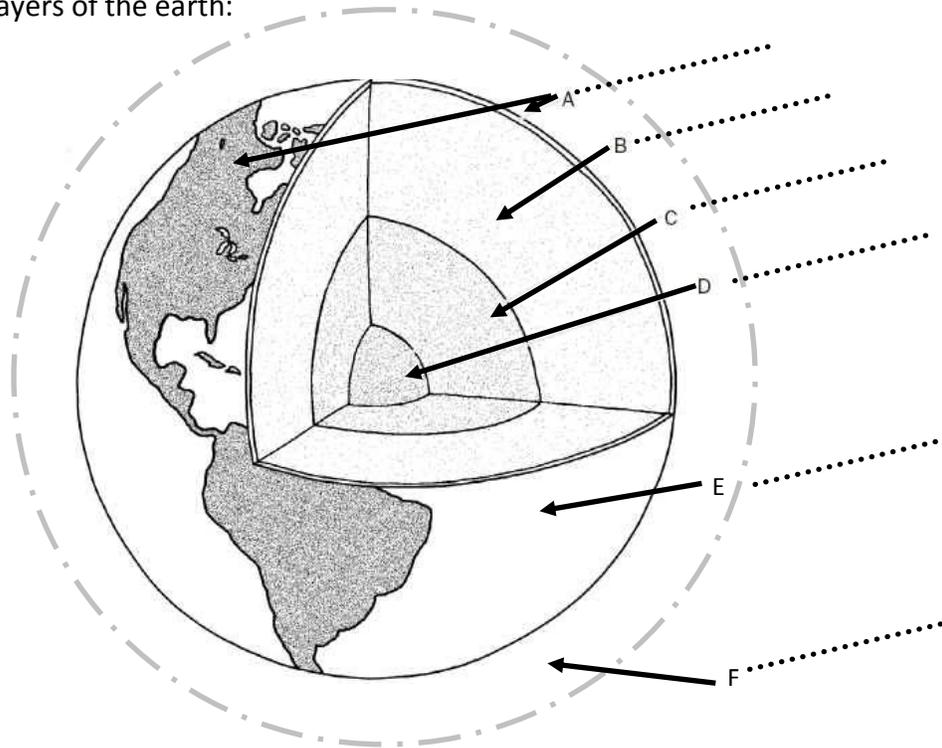


Why is there no sand and little tiny rocks in this stream?

Why is my basement freezing and my attic really hot in the winter?

Rocks from a stream may have a density of about 5 g/cm^3 . Gold is one of the most dense materials on earth with a density of 19.3 g/cm^3 . Why do you think gold miners look for gold in the bottom of their mining pan?

Label the layers of the earth:



List the layers in order from MOST dense to LEAST dense _____

Atmosphere: Least dense. Made of gases. Floats on the water and crust. Usually invisible.

Water: Density of 1 g/cm^3 . Covers most of the earth. It is a liquid.

Crust: We have never drilled all the way through it. Made of solids mostly granite and basalt. More dense than the layers above it but floats on the mantle. It is the thinnest of all of solid layers of the earth.

Mantle: It is the thickest of all the layers. The top portion is soft like plastic but the rest is a solid made of silicates. It is more dense than the crust, but is floating on the outer core.

Outer Core: A liquid layer made of iron and nickel. It spins around the inner core causing magnetism. Super hot and dense.

Inner Core: Even though it is over 4000 degrees and should be a gas, it is a solid ball of iron because all the layers are pressing down on it, the molecules are so squished they are forced into a solid state because of the pressure. It is the hottest and most dense layer.

Earth and Density Test Retake Worksheet

Name _____

Instructions: Answer the questions on this worksheet. Bring the completed worksheet to Mrs. Huddleston when you are ready to retake your test: before school, after school or during Sting. This worksheet must be stapled to your test in order to get credit for the retake.

Describe what density means.

What are two ways you can make an object MORE dense?

What are two ways you can make an object LESS dense?

Describe what makes one object float on water when another object may sink in water.

What is the density of water?

When liquids are poured into a jar, they can make layers. These layers are caused by two factors: Density and Size.

Describe how they might layer according to density.

Then describe how they might layer according to size.

What is volume?

What is mass?

How do I find the mass of something?

How do I find the volume of a liquid?

How can I find the volume of a solid square box?

How can I find the volume of a strange shaped object?

Calculate the following:

A rock has a mass of 150 and a volume of 5cm^3 . What is the density?

A box has a volume of 15 and a mass of 250 g. What is the density?

A toy has a mass of 750 g and a density of 5g/cm^3 . What is the volume?

A container has a density of 2.5g/cm^3 and a volume of 340cm^3 . What is the mass?

Using water displacement, I start with 25 mL of water and add a rock. The water level is at 125 mL. What is the volume of the rock?

Imagine a dry river bend. Explain the sizes of rock that you might see. What will wash away first if a flash flood comes through?

Explain why your attic air is warm and your basement air is cold.

When would a river be the most churned up and brown in color?