

Duration: 50 min.

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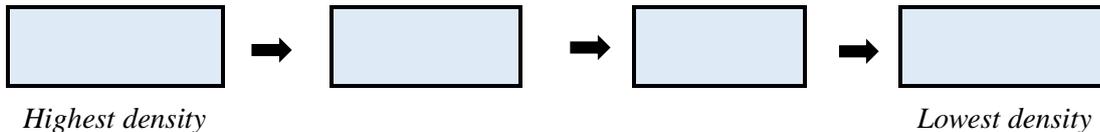
Practical Test 3: Density of rocks

Determine the density of four rock samples (A – D) using the following lab instruments and materials: balance, beakers (of various sizes), cylinder, calculator, thread and water. Enter your data in the table below.

<i>Sample</i>	A	B	C	D
<i>Mass (g)</i>				
<i>Volume (mL)</i>				
<i>Density</i>				

Q1) Arrange the rock samples according to their densities, based on the data you collected.

Write the letters A-D in the boxes.



Q2) Select ALL correct statements based on your experimental results.

- a. The sample with the highest density contains abundant mafic minerals.
- b. The sample with the highest density contains abundant felsic minerals.
- c. The sample with the highest density has high porosity.
- d. The sample with the highest density is fine-grained.
- e. The sample with the highest density is coarse-grained.

Q3) Select ALL correct statements based on your experimental results.

- a. The sample with the lowest density contains abundant mafic minerals.
- b. The sample with the lowest density has high porosity.
- c. The sample with the lowest density contains abundant clay minerals.
- d. The sample with the lowest density has low porosity.
- e. The sample with the lowest density is coarse-grained.



Q4) Select ALL correct statements regarding the variation of rock density based on your experimental result.

- a. Density appears to be higher in darker colored rocks.
- b. Density appears to be higher in lighter colored rocks.
- c. Density appears to be higher in rocks with high porosity.
- d. Density appears to be higher in rocks with low porosity.
- e. The rock with the highest density formed by the crystallization of magma.
- f. The rock with the lowest density formed by the crystallization of magma.
- g. The rock with the highest density formed by regional metamorphism.
- h. The rock with the lowest density formed by diagenesis.
- i. The rock with the lowest density contains abundant carbonate minerals.
- j. Density appears to be higher in metamorphic/igneous rocks than in sedimentary rocks