

Density and Buoyancy

Lesson 1 Density

Grade 8 Science Content Standards—8.a: Students know density is mass per unit volume. Also covers: 8.b, 9.f



Scan Lesson 1 of your book. Use the checklist below.

- Read all of the headings.
- Read all of the bold words.
- Look at the tables and pictures.
- Think about what you already know about density.

Write three facts that you discovered.

1. _____

2. _____

3. _____

Review Vocabulary

volume

Define volume using your book or a dictionary.

New Vocabulary

density

Use your book or a dictionary to define the vocabulary terms. Then use each term in a sentence that shows its scientific meaning.

rectangular solid

Academic Vocabulary

preceding

Define preceding.

Lesson 1 Density (continued)

Main Idea

What is density?

I found this information on page _____.

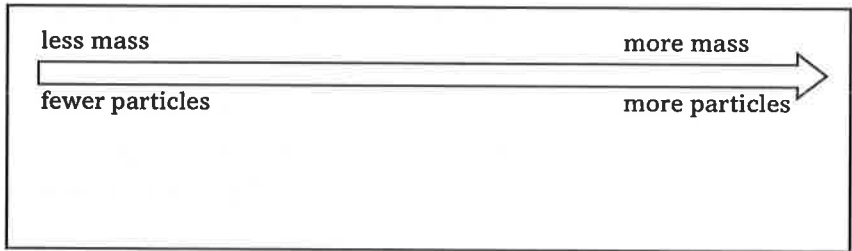
I found this information on page _____.

I found this information on page _____.

I found this information on page _____.

Details

Draw and label an arrow to show how density changes as the mass and number of particles in an equal volume change.



Complete the equation with words to show how density is calculated. Give the unit for each part of the equation. Then write the equation with symbols.

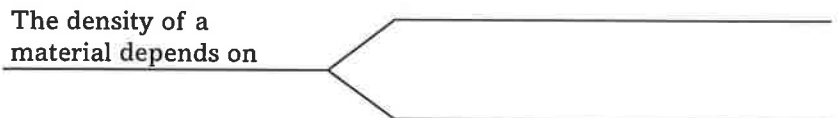
density (_____) = _____ divided by _____

Equation: _____

Summarize the two properties that change when a material is broken into smaller pieces and the one that does not.

The _____ and _____ of the material change, but its _____ does not change.

Analyze the factors that determine the density of a material. Complete the diagram.



SUMMARIZE IT

Summarize the main ideas of the above section in two bullet points.

Lesson 1 Density (continued)

Main Idea

Measuring Density

I found this information on page _____.

I found this information on page _____.

I found this information on page _____.

Details

Summarize the steps used to find the density of a liquid.

1. _____
2. _____
3. _____

Complete the formula below to show how to calculate the volume of a rectangular solid.

Volume = _____ × _____ × _____

Sequence the steps used to find the volume of an irregular solid. Draw how the lab equipment might look for each step.

1. Place water in a graduated cylinder, and record its volume.



2.



3.

SUMMARIZE IT

Summarize two main ideas of the above section.
