

8th Grade Science

Introduction to Matter Book

Chapter One: The Properties of Matter

Section One: What is Matter? (pg 4-9)

Answer each of the following questions on a piece of notebook paper, in a complete sentence, restating the question in your answer. Failure to follow these rules will result in the student having to rewrite the assignment to earn their points.

1. Why can't two objects share the same space?
2. What two units are used most often to express volume of liquids?
3. What is a graduated cylinder used for?
4. Explain why the meniscus may not be visible in a large beaker.
5. How is the volume of a solid object expressed?
6. What is the process for finding the volume of a regular shaped object?
7. How would you find the volume of an irregular shaped object?
8. A book has a length of 25 cm, a width of 18 cm, and a height of 4 cm. What is its volume?
9. A CD case is 14.2 cm long, 12.4 cm wide and 1 cm deep. What is its volume?
10. What is the only way to change the mass of an object?
11. How does mass affect weight?
12. List four characteristics of mass.
13. List four characteristics of weight.
14. What is the metric unit for weight?

15. Your pair of boots has a mass of 850 g. If each boot has exactly the same mass what is the weight of each boot?
16. How does an objects mass affect its inertia?
17. Using a Volkswagen Bus and a skateboard, explain how they would have different inertia and why.
18. A nugget of gold is placed in a graduated cylinder that contains 80 ml of water. The water level rises to 225 ml after the nugget is added to the cylinder. What is the volume of the gold nugget?
19. One newton equals about 100 g on Earth. How many newtons would a football weigh if it had a mass of 400 g?