22. C
23. C
24. B

SECTION: CHEMICAL PROPERTIES

1. chemical property
2. flammability
3. nonflammability
4. reactivity
5. B
6. C
7. A
8. B
9. D
10. property
11. change
12. C
13. B
14. C
15. A
16. C
17. D
18. B
19. B
20. A

Vocabulary and Section Summary

SECTION: WHAT IS MATTER?

1. matter: anything that has mass and takes up space
2. volume: a measure of the size of a body or region in three-dimensional space
3. meniscus: the curve at a liquid's surface by which one measures the volume of the liquid
4. mass: a measure of the amount of matter in an object
5. weight: a measure of the gravitational force exerted on an object; its value can change with the location of the object in the universe
6. inertia: the tendency of an object to resist being moved or, if the object is moving, to resist a change in speed or direction until an outside force acts on the object

SECTION: PHYSICAL PROPERTIES

1. physical property: a characteristic of a substance that does not involve a chemical change, such as density color, or hardness
2. density: the ratio of the mass of a substance to the volume of the substance
3. physical change: a change of matter from one form to another without a change in chemical properties

SECTION: CHEMICAL PROPERTIES

1. chemical property: a property of matter that describes a substance's ability to participate in chemical reactions
2. chemical change: a change that occurs when one or more substances change into entirely new substances with different properties

Section Review

SECTION: WHAT IS MATTER?

1. Sample answer: You can measure the volume of a liquid by pouring it into a graduated cylinder and reading the scale at the bottom of the meniscus.
2. Sample answer: Mass is a measurement of how much matter is in an object. Weight is a measurement of how much gravitational force is exerted on an object's mass. Inertia is what causes an object to remain at rest or remain in motion. The more mass an object has, the greater its inertia.
3. D
4. A
5. C
6. D
7. Mass is a measure of inertia. The more mass an object has, the more inertia it has.
8. 145 cm^3
9. 4 N
10. Not all objects that have large masses have large weights because the weight of an object can change depending on where it is located in the universe. Mass remains the same everywhere in the universe. So a massive object in space may not have a large weight.
11. The elephant's weight on the moon would be only one-sixth of its weight on Earth. This is due to the moon having only one-sixth the gravitational force of the Earth.

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