

Skills Worksheet

Directed Reading A/B*use with pg. 36 - 39***Section: Behavior of Gases****DESCRIBING GAS BEHAVIOR**

- _____ 1. What state of matter is helium?
a. solid b. liquid c. gas d. plasma
2. A measure of how fast the particles in an object are moving is the _____.
3. Why is more gas needed to fill helium balloons on a cold day?
- _____
- _____
4. The amount of space that an object takes up is the _____.
5. The volume of any gas depends upon the size of the _____.
6. The amount of force exerted on a given area is called _____.
7. Why does the basketball have greater pressure than the beachball?
- _____
- _____

Temperature

Read the words in the box. Read the sentences. Fill in each blank with the word that best completes the sentence.

pressure	gas	temperature	volume	Particles
----------	-----	-------------	--------	-----------

8. Helium is a _____.
9. A measure of the speed of molecules is the _____.
10. The amount of space matter takes up is its _____.
11. When the amount of force per unit area increases, the _____ increases.
12. The pressure in a ball can be increased by adding more _____.

GAS BEHAVIOR LAWS

- _____ 13. Lifting a piston on a cylinder of gas shows that when the pressure of the gas
a. increases, the temperature increases. b. decreases, the volume increases.
c. decreases, the volume decreases. d. increases, the volume increases.

Directed Reading A *continued*

- _____ 14. All of the following remain constant for Charles's law EXCEPT
- the type of piston.
 - the amount of gas.
 - the volume of the gas.
 - the pressure.
15. The relationship between the volume and pressure of a gas when temperature remains constant is called _____
16. Weather balloons are only partially inflated before they're released into the atmosphere. Explain why this is so in terms of pressure changes associated with altitude changes?
- _____
- _____
- _____
- _____
17. Putting a balloon in the freezer is one way to demonstrate _____
18. The relationship between the volume and the temperature of a gas when pressure remains constant is known as _____

Read the words in the box. Read the sentences. Fill in each blank with the word that best completes the sentence.

gas laws	Boyle's law	Charles's law
----------	-------------	---------------

GAS BEHAVIOR LAWS

Boyle's Law

19. The relationships between temperature, pressure, and volume for a fixed amount of gas are described by _____
20. Volume and pressure of a gas are inversely related if the temperature stays the same. This is _____
21. The volume of a gas is directly related to its temperature if the pressure is constant. This is _____