

Solids, Liquids, and Gases ▪ 3.3 Review and Reinforce**The Behavior of Gases****Understanding Main Ideas**

Complete the following compare and contrast table.

Law	When temperature of a gas . . .	If you . . .	Then you observe . . .
Boyle's law	stays constant	decrease volume	1.
Boyle's law	stays constant	increase volume	2.
Charles's law	increases	keep pressure constant	3.

Answer the following questions in the spaces provided.

4. A gas barbecue grill uses propane gas. The propane is stored in a rigid tank. What happens to the pressure of the propane when the tank is left outside on a very hot summer day? What about on a cold winter day?

5. How are pressure, force, and area related?

6. How does the speed of the particles of a gas change when the gas is heated?

Building Vocabulary

Match each term with its definition by writing the letter of the correct definition on the line beside the term in the left column.

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| _____ 7. Charles's law | a. explains the relationship between the pressure and volume of gas at a constant temperature |
| _____ 8. pressure | b. explains the relationship between the temperature and volume of gas kept at a constant pressure |
| _____ 9. Boyle's law | c. a measure of the average energy of motion of the particles of a substance |
| _____ 10. temperature | d. a measure of the force of the outward push caused by the movement of particles of a gas |