

Behavior of Gases

force	increase	kinetic	pressure	volume
particles	Charles's	size	boiling	kilopascals
Boyle's	absolute	decrease	larger	temperature
constantly	liquids	pressure	decrease	increased

Gases in Earth's atmosphere exert 1. _____ on everything. According to the 2. _____ theory, the particles of a gas are 3. _____ moving. Every time gas particles hit something and bounce off, they exert a tiny force. Pressure is this amount of 4. _____ exerted per unit of area. Air pressure at sea level is 101.3 5. _____.

The amount of force exerted by a gas depends on the 6. _____ of its container. 7. _____ law states that if a sample of gas is kept at constant 8. _____, decreasing the volume will 9. _____ the pressure the gas exerts. If you increase the volume, the pressure will 10. _____. According to the kinetic theory, if you do not change the amount of gas or its temperature but 11. _____ the size of the container, the particles will strike the walls more often and the pressure will rise. When the size of the container is 12. _____, the pressure is smaller because the 13. _____ hit the walls less often.

According to 14. _____ law, if a sample of gas is kept at constant 15. _____, the volume increases if the temperature is 16. _____. Charles's measurements suggested that the 17. _____ of a gas would become zero at a temperature of -273°C . The temperature -273°C is called 18. _____ zero. All gases become 19. _____ when cooled to their 20. _____ points.