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Gas Laws

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| **Across****2.** the ability or tendency to float in water or air or some other fluid**3.** the process in which molecules move from a higher concentration to a lower concentration**4.** a gas whose pressure P, volume V, and temperature T are related by the ideal gas law PV = nRT,**9.** an instument used to messure atmospheric pressure**11.** something is compressed and particles move around bouncing off the sides of the container (trying to escape and expand)**12.** variable definition - the space not filled by an atom**14.** the quantity of three-dimensional space occupied by a liquid, solid, or gas**15.** to be able to be compressed into a solid mass or smaller space**16.**  an experimental gas law which describes how the pressure of a gas tends to decrease as the volume of a gas increases**17.**  the hypothetical pressure of that gas if it alone occupied the volume of the mixture at the same temperature**18.**  related by inverse variation**19.** the SI derived unit of pressure used to quantify internal pressure, stress, Young's modulus and ultimate tensile strength | **Down****1.** the lowest temperature that is theoretically possible, at which the motion of particles that constitutes heat would be minimal**5.** a law stating that the volume of an ideal gas at constant pressure is directly proportional to the absolute temperature**6.**  a volume that encloses little or no matter**7.** a combination of gases that surround a planet, room, etc**8.** the volume occupied by one mole of a substance at a given temperature and pressure. It is equal to the molar mass (M) divided by the mass density**10.** used to explain the behavior of gases and is based upon the following postulates: Gases are composed of a many particles that behave like hard spherical objects in a state of constant, random motion**13.** indicates the direction in which energy flows when two objects are in thermal contact |