

Name: \_\_\_\_\_

## Gas Laws Webquest

Click here to answer. <http://environmentalchemistry.com/yogi/chemistry/dictionary/#G>

What is a **gas**?

Click here to answer. <http://www.chm.davidson.edu/vce/kineticmoleculartheory/BasicConcepts.html>

What does the **kinetic molecular theory** explain? (at least 3 things)

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Click here to answer. <http://legacyweb.chemistry.ohio-state.edu/betha/realGasLaw/fr1.2.html>

Describe the three states of matter in terms of how they fill a container.

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Click here to answer. <http://legacyweb.chemistry.ohio-state.edu/betha/realGasLaw/fr1.1.html>

Describe the typical motions of atoms in a solid, a liquid and a gas.

Click here to answer. <http://legacyweb.chemistry.ohio-state.edu/betha/realGasLaw/fr1.3.html>

What are the 4 physical (measurable) characteristics of a gas?

<http://www.enchantedlearning.com/chemistry/glossary/Kelvin.shtml>

The Kelvin scale is based on the concept of absolute zero. What is absolute zero, and what happens to particles at absolute zero?

Click here to answer. <http://www.enchantedlearning.com/chemistry/glossary/Kelvin.shtml>

6. Read about temperature conversions and fill in the following chart. Comparison of Temperature Scales

	Fahrenheit	Celsius	Kelvin
Water boils			
Body temperature			
Water freezes			
Absolute zero			

Click here to answer. <http://www.chemicalelements.com/>

7. What are the boiling points of Oxygen, Nitrogen and Fluorine gas?

Click here to answer. <http://ap-physics.david-s.org/simple-mercury-barometer/>

8. Who invented the mercury barometer and what is it used to measure?

9. How does the barometer work? Draw a quick diagram and label it below.

Click here to answer 10-12. <http://resources.schoolscience.co.uk/BAMA/11-14/aerosch4pg1.html>

10. What causes the pressure that a gas exerts on the walls of its container?

11. Why do we not feel the weight of the atmosphere?

12. Read the rest of the page "Pressure in Gases" and answer the questions at the end. After you have answered the questions, click "show answers" and record your score.

Score= \_\_\_\_\_

Click here to answer. <http://library.tedankara.k12.tr/chemistry/vol1/physics/trans64.htm>

13. What happens to the pressure of a confined gas at a constant temperature when the volume is reduced by 1/2?

Click here to answer. <http://library.tedankara.k12.tr/chemistry/vol1/physics/trans62.htm>

14. What happens to the volume of a gas at constant temperature when the pressure is increased?

Click here to answer. <http://www.chemtutor.com/gases.htm>

15. Write Boyle's law using both words and a formula.

16. Write Charles's law using both words and a formula.

17. Write Avogadro's Law using both words and a formula.

18. Write the Combined Gas using both words and a formula.

19. Write the Ideal Gas Law using both words and a formula.

20. Write out Dalton's Law of Partial Pressure using both words and a formula.

Click here to answer. <http://jdenuno.com/Chemistry/Labs/GasLaws.swf>

21. Use the Boyle's Law simulation and describe how the volume and pressure of a gas are related.

Click here to answer. <http://www.grc.nasa.gov/WWW/K-12/airplane/Animation/gaslab/chvImp.html>

22. Use the Charles's law simulation and describe how the temperature and volume of a gas are related.

23. Watch this video on vapor pressure. <https://www.khanacademy.org/science/chemistry/states-of-matter-and-intermolecular-forces/states-of-matter/v/vapor-pressure>. Summarize the video here: