

# Learning Activity Template

Title: Behavior of Gases

Curriculum: Physical Science

Grade-Level Span: 9

## PURPOSE:

Students will review the properties of gases and the ways in which they differ from solids and liquids. Students will then learn the 3 basic gas laws: Boyle's Law, Charles Law, and Gay-Lussac's Law.

## DESCRIPTION:

Students will review the properties of gases through discussion and practical examples. Students will then interact in a lab./demo set up for further observation. A review of the 3 laws will follow with animated examples for discussion. Students will then analysis the demo/lab. Closure questions are discussed for oral evaluation.

ACTIVITIES	CURRICULUM STANDARDS	NETS PERFORMANCE INDICATORS
Students will list the properties of gases on their outline.	PS 2e 5c	2
Students will aid in the set up of a quick lab for observation.		
Students will observe and analyze examples of the gas laws.		5 & 6
Students will analyze the outcome of the quick lab.		6
Students will close with analysis questions regarding the presentation and lab.		6

## TOOLS AND RESOURCES:

(List all Web sites, specific software and hardware, and other needs.)

[www.lerc.nasa.gov/wwwk-12/airplane/aboyle.html](http://www.lerc.nasa.gov/wwwk-12/airplane/aboyle.html)

[www.public.iastate.edu/liuhc/flash/chem/gaslaw/charles\\_law.html](http://www.public.iastate.edu/liuhc/flash/chem/gaslaw/charles_law.html)

LCD projector

Computer with internet connection

## ASSESSMENT:

(How will you assess the students' learning? If you have a rubric, record it here. Be as specific as possible.)

Students will be assessed based on their answers to closure questions and test/quiz questions.

## CREDITS (INCLUDING CONTACT INFORMATION):

(Record the names and e-mail addresses, if possible, of those who contributed to the development of this learning activity.)

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**COMMENTS:**

(Have you taught this learning activity before? What are the great ah ha's/experiences you had?)

Great visual examples for student analysis.

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