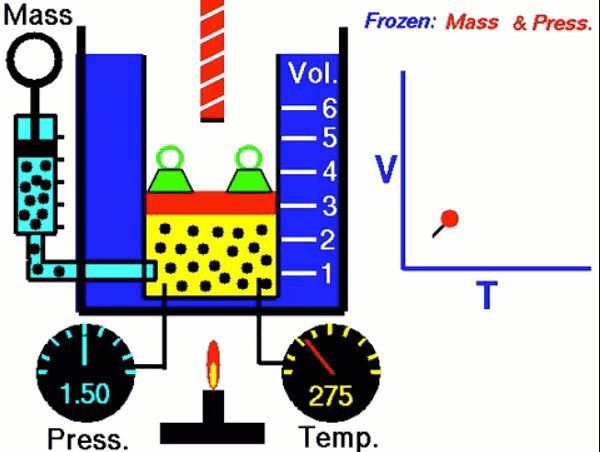
**Gas Laws Chapter 14A**

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**See** [**https://www.learningctronline.com/courses**](https://www.learningctronline.com/courses) **for Materials and Resources.**

**Topics:**

1. Gas Laws

**Objectives:**

* + State Boyle’s law, Charles’s law, Gay-Lussac’s law, and Avogadro's law and apply these laws to calculate the relationships between volume, temperature, and pressure.
  + Derive the combined gas law from Boyle’s law, Charles’s law, and Gay-Lussac’s law and calculate for pressure, volume, or temperature.

TAKE NOTE

1. Notes/Study Guide (2 weeks)
2. Lab Report Percent Yield due Friday
3. Lesson Check & Sample Problems or Alternative Worksheets
4. Lab Quiz: Boyle’s & Charles’ Laws
5. HONORS 🡪 Perform 2 of 3 of the Pressure Activities.
6. Test Corrections (Stoichiometry)
7. Class Song: “Hi Ho” (Work Hard)
8. Week 21 Devotional (<https://www.learningctronline.com/devotional>)

**Text**: Chapter 14: Gas Laws pp. 448-461

Read the assigned pages in the text.

**Class Notes: PowerPoint or PDF**

**Notes/Study Guide:** Fill in the Chapter 14 worksheet to understand the class notes.

**Homework**: Text

(1) Answer the KEYED **“Lesson Check”** questions at the end of each.

(2) Answer the **“Sample problems”** found in the “Sample Problem” boxes throughout the chapter. An answer KEY is provided for you to use to self-correct your homework problems.

* Put your answers into complete thoughts in a Word document. Do NOT just put the answer, but write a phrase or sentence that you can study from for your tests. Save your work in a WORD document and SAVE into your HOMEWORK folder in the Chemistry folder on the desktop.
* Assignments will be “spot checked” during class or submitted via email.

**Alternate Homework**:

1. Boyle’s Law Worksheet
2. Charles’ Law Worksheet
3. Gay-Lussac’s Law Worksheet

**Lab**: Boyle’s & Charles’ Laws

Perform the **Lab.**

* Answers are provided at the end of the document for guidance. Do NOT copy and paste these answers, but write using your own words.
* Save the document into your LAB folder in the Chemistry folder on your desktop.
* Study for understanding, and when ready, take the Lab Quiz.
* You may **NOT** use the worksheet on this lab test.

**TEST:** The test will be given after next week’s lesson.

Supplemental Resources (Optional)

1. Boyle’s & Charles’ Laws Simulation
2. Pressure Activities 🡪 Honors students do 2 of 3 of these activities

<https://screencast-o-matic.com/watch/cFeY3gDvx1> Pressure Demonstrations (5:32)

PSI (Breaking a Board using Atmospheric Pressure)

Manometer Readings

Boiling Water below 50 C

<http://somup.com/cFQ6XyVShZ> Collapsing Can (0:47)

<http://somup.com/cZnl2gpbtr> Charles' Law & Gay-Lussac's Law (3:50)

<http://somup.com/cqQXrheAbh> Kinetic Theory ctr (2:01) super ball and elastic collisions

<http://somup.com/cYhFD1jyDA> Be Humbled; 1 Peter 5:5b-6; Blessings (5:30)