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

**Topics:**

1. Matter and Change

**Objectives:**

1. Describe & Distinguish between Extensive, Intensive & General Properties
2. Explain why all samples of a substance have the same intensive properties.
3. Classify Matter as Pure versus Mixture
4. Explain how mixtures can be separated.
5. Identify the states of Matter (s, l, g)
6. Be able to use the Periodic Table to find information about elements
7. Distinguish Physical Changes from Chemical Changes
8. Describe how the mass of the reactants and products of a chemical reaction is conserved.
9. Describe the law of definite (fixed) proportions and using calculation determine if compounds are alike or not.

TAKE NOTE

1. Review Policies
	1. Late Policy
	2. Grading & Pedagogy – expect to spend 8-10 hrs/week on Chemistry; Honors: 10-12 hrs/wk
	3. Test Corrections
2. Create a Chemistry folder on your Desktop with the following SUBfolders:
	1. Class Notes
	2. Homework
	3. Lab
	4. Test
	5. Reference Tables / Resource
		1. Periodic Tables
		2. Equation / Formula Sheet
		3. Reference Tables
3. Review Conduct, Integrity, Plagiarism policy (<https://www.learningctronline.com/policies-conduct-integrity-plagiari>)
4. Notes / Study Guide
5. Lesson Check/Sample problems or Alternative Worksheets
6. Lab Ice to Water (Mass)
7. Lab Separating Mixtures
8. HONORS Lab Classification of Matter OR Pressure Activities
9. Test Corrections Intro to Chemistry (See guidelines in “Resources”)
10. Week 2 Devotional (<https://www.learningctronline.com/devotional>)

**Text**: Chapter 2: Matter and Change pp. 32-59

Read the assigned pages in the text.

**Class Notes: PowerPoint or PDF**

**Notes/Study Guide:** Fill in the Chapter 2 worksheet to understand the class notes.

**Homework**:

(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. [Phases of Matter Graphs](https://www.pottersschool.org/asset/5D46A6821310897256087CFAC284936A/3/) (not due until after next week’s class)

HONORS Lab Classification of Matter OR Pressure Activities

**Lab**: Ice to Water (Conservation of Mass)

* Perform the simple experiment using the lab worksheet provided.
* Complete the calculations and data by recording your observations of what happens in the lab.
* Conclusions should be answered in complete sentences that convey a complete thought.
* Include a picture of your set-up. Take a picture with your camera or phone and upload it as a jpeg or other image and then insert it into the lab worksheet. If necessary, you could find a suitable picture on the internet (be sure to give the source).
* Answers are provided at the end of the worksheet for guidance and reinforcement. You may use them AS LONG AS YOU REWORD your answers in YOUR OWN WORDS versus copying and pasting.
* Save document into your LAB folder in the Chemistry folder on your desktop.

**Lab**: Separating Mixtures

* Perform the paper chromatography experiment using the lab worksheet provided (based on the quick lab activity on page 39 of your textbook).
* Complete the calculations and data by recording your observations of what happens in the lab.
* Conclusions should be answered in complete sentences that convey a complete thought.
* Include a picture of your set-up. Take a picture with your camera or phone and upload it as a jpeg or other image and then insert it into the lab worksheet. If necessary, you could find a suitable picture on the internet (be sure to give the source).
* Answers are provided at the end of the worksheet for guidance and reinforcement. You may use them AS LONG AS YOU REWORD your answers in YOUR OWN WORDS versus copying and pasting.
* [Video of Paper Chromatography](http://somup.com/cFQQFOVScd) (1:40) ... in case you do not have the proper materials.
* Save document into your LAB folder in the Chemistry folder on your desktop.

**TEST:**

Chapters 2 and 13 will be combined into one TWO-week unit. The test will be given after next week’s lesson.

Supplemental Resources (Optional)

1. Worksheet: [Classifying Matter Phys Chem Change Lab](https://www.pottersschool.org/asset/996D6C75B86F5F75665CF9CEFEC97867/0/)

[Extensive & Intensive Properties ctr](http://somup.com/cF660DnnJb) (1:53) ... used to classify matter

[Electrical Conductivity (Properties) ctr](http://somup.com/cF6eq5nVpn) (1:13) ... solids & water

[Electrical Conductivity (Properties) ctr](http://somup.com/cF6eq8nVpq) (1:31) ... solutions

[Mass of Ice Before and After Melting](https://screencast-o-matic.com/watch/cYfv3eBO4H) (0:41)

[Classifying Matter Notes ctr](http://somup.com/cF6XFbnn8Q) (1:52) ... Graphic Organizer ... Pure substances versus mixtures.

[17 Samples of Classifying Matter ctr](http://somup.com/cFQi2FVRK8) (6:10) ... Non-uniform mixtures/suspensions/colloids are all heterogeneous.

[Dancing Raisins](http://somup.com/cqjhonebqd) (1:07)

[Density: An Intensive Property ctr](http://somup.com/cFQi2CVR7o) (1:12) ... Beware of Whacky Scientists!

[Physical Versus Chemical Properties ctr](http://somup.com/cFQio2VR7w) (2:36) Discussion & "Burning Water"

[Physical Versus Chemical Changes LAB ctr](http://somup.com/cFQilMVRKj) (5:01) ... demonstrations (part 1)

[Physical Versus Chemical Changes LAB ctr](http://somup.com/cFQiI3VRKY) (5:04) ... demonstrations (part 2)

[Separating Mixtures: Distillation ctr](https://screencast-o-matic.com/watch/cFfnDFDGtZ) (2:32)

<http://somup.com/c0jwYeA4Sw> Definite Proportions Class Notes (4:56)

AGES (Problem Solving Method) <http://somup.com/crnlDND2dj> (5:45)

[New Creation 2 Corinthians 5:17](http://somup.com/cYhlqVjq3L) (5:23)