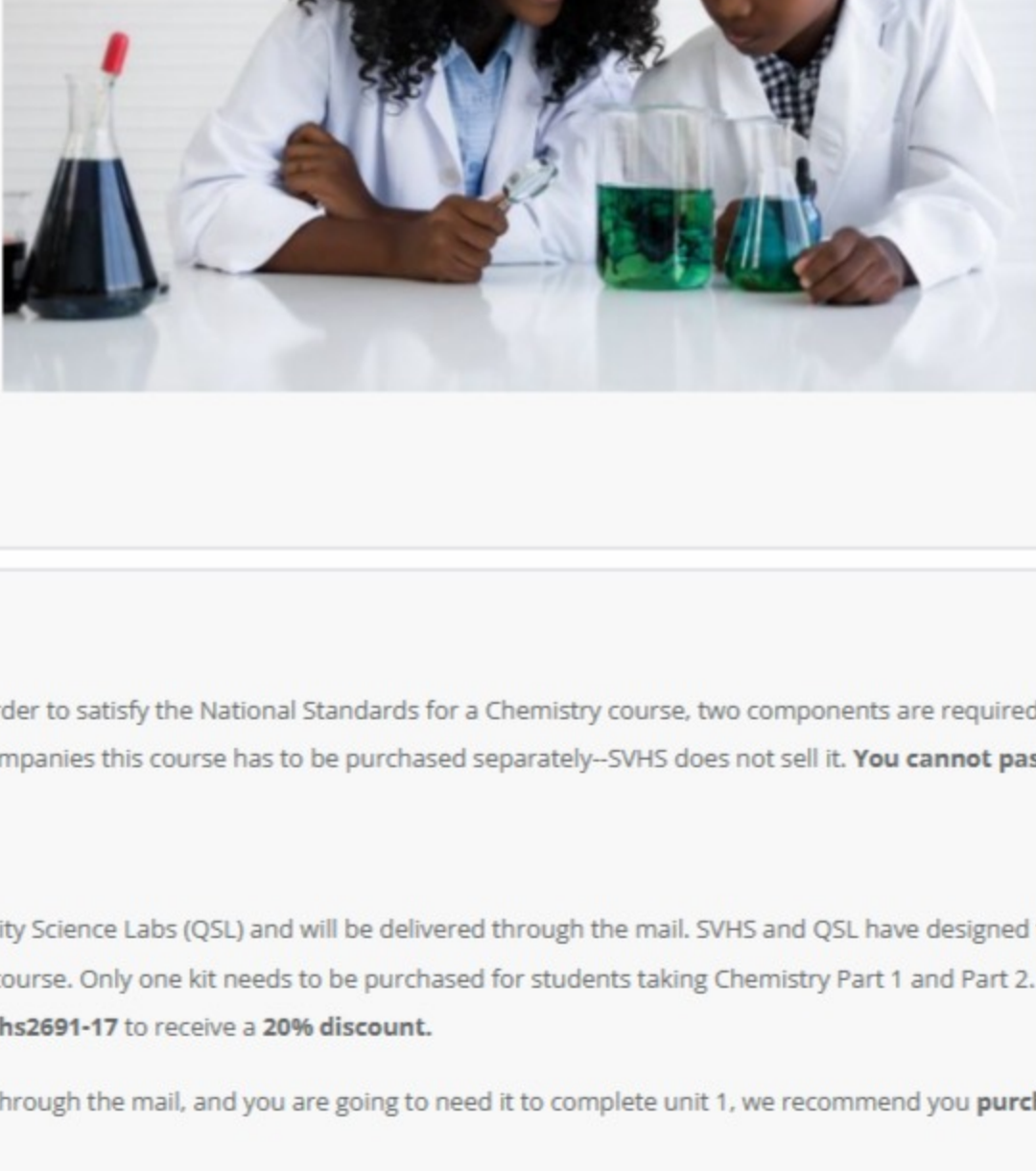


Chemistry - Part 1

ATTENTION

Grading at the end of the semester can take 7 school days!
Submit your **last assignment two weeks** before your school's semester ends.



Lab Requirement

Chemistry is a Lab Science course; in order to satisfy the National Standards for a Chemistry course, two components are required. The first is our online course, and the second is the labs. The lab kit that accompanies this course has to be purchased separately—SVHS does not sell it. **You cannot pass this course without purchasing the kit and completing ALL the labs.**

Lab Kit Requirement

The kit should be purchased from Quality Science Labs (QSL) and will be delivered through the mail. SVHS and QSL have designed this kit to accompany this course. The same kit can be used for Part 2 of this course. Only one kit needs to be purchased for students taking Chemistry Part 1 and Part 2. **Order your lab kit from QSL:** at checkout, use the customer code: **svhs2691-17** to receive a **20% discount**.

Important: - As the lab kit is delivered through the mail, and you are going to need it to complete unit 1, we recommend you **purchase it now**.

Lab Details and Descriptions

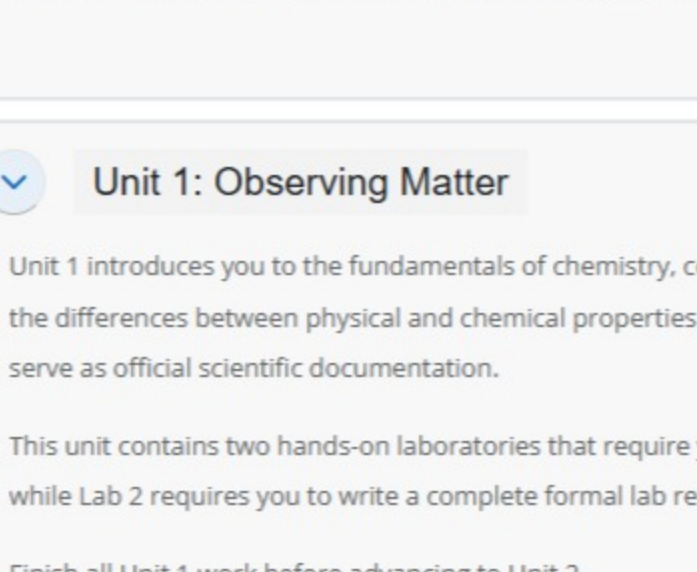
Detailed instructions for the wet labs are provided in the lab kit and on the Lab Assignment pages. You can see a summary description of the labs covered in [this course](#).

Unpacking Your Lab Kit

How to Take This Course

Complete all the quizzes and the lab assignments in each unit. Once the quizzes for a unit are complete and your lab assignments are submitted, you will have access to the unit test. You must complete the labs before attempting the unit test, as questions in the test will relate to the material covered in the labs. You will have access to the final after you have been enrolled in the course for at least 30 days AND when all unit tests are completed, and all assignments are graded.

Important: Allow a minimum of 3-4 school days for an assignment/lab to be graded. Read the full course instructions to understand the course grading.



Course Instructions

This is a Lab Science course; if you've taken courses with us before, please note that this one works slightly differently. Read the Course Instructions before you begin.

How This Course Works & Suggested Timeline

Submitting Your Lab Assignments

PDF is the required file format for lab reports. **TIP:** If your PDF is a large file and too big to upload, compress the PDF file using the free tools available at [ilovepdf.com](#) or [Smallpdf.com](#). Do not create a user account on these websites; it is not required.

Ask The Teacher

Meet your teacher for this course and ask a question.

Need help with the course? We offer online tutoring; find more details about it [here](#).

Learning Objectives & Standards Met By This Course

MANDATORY QUIZ

Done

You are required to take this quiz before you start the course. To prepare, read the course instructions and the "submitting your assignments" document, watch the video on the how this course works page and review the suggested timeline.

Unit 1: Observing Matter

Unit 1 introduces you to the fundamentals of chemistry, covering what chemistry is and why it matters, important historical discoveries and the scientists behind them, the differences between physical and chemical properties and their classifications, how matter is organized and categorized, and how to write formal lab reports that serve as official scientific documentation.

This unit contains two hands-on laboratories that require your lab kit. Each lab begins with a pre-lab preparation lesson to help you succeed. Lab 1 is followed by a quiz, while Lab 2 requires you to write a complete formal lab report. Questions about both laboratories will be on the unit test and final exam.

Finish all Unit 1 work before advancing to Unit 2.

Unit 1 Study Guide

This study guide will help you preview the concepts and guide your learning as each new skill or concept is introduced. Use this study guide as the foundation of your notes. You may use it on the unit quizzes, unit tests, and course final.

Click on the link above, and make a copy of the file; it will open in Google Docs. If you don't have access to Google Docs, copy the URL into a new browser tab, remove "Copy" at the end of the URL, and replace it with "View". From the File Menu, select Download and choose a format you prefer.

1.1 Great Discoveries in Chemistry

Quiz 1.1 Great Discoveries in Chemistry

To do

1.2 Scientific Method and CRAAP

Quiz 1.2 Scientific Method and CRAAP

To do

1.3 Pre-Lab: Scientific Method

Quiz 1.3 Pre-Lab: Scientific Method

To do

1.3 Hands-on Lab: Scientific Method

Quiz 1.3 Hands-on Lab: Scientific Method

To do

1.4 Physical and Chemical Properties

Quiz 1.4 Physical and Chemical Properties

To do

1.5 Classifying Matter

Quiz 1.5 Classifying Matter

To do

1.6 Pre-Lab: Paper Chromatography

Quiz 1.6 Pre-Lab: Paper Chromatography

To do

Unit 1 Lab Assignment: Classifying Matter Through Paper Chromatography

To do

Unit 1 Test

Not available unless: The activity Quiz 1.1 Great Discoveries in Chemistry is marked complete ...

Show more

Unit 2: Elements and the Periodic Table

In this unit, you will learn the elements, what they are made of, and their places on the Periodic Table. You will learn about orbitals, trends in the periodic table, and the atomic model. Plus, this unit will also introduce you to electrons, what they are, and their importance.

Unit 2 has TWO labs. There is a pre-lab lesson before each lab to help you prepare. There are questions in the unit test related to the two labs. Complete ALL the work in Unit 2 before moving to Unit 3.

Unit 2 Study Guide

This study guide will help you preview the concepts and guide your learning as each new skill or concept is introduced. Use this study guide as the foundation of your notes. You may use it on the unit quizzes, unit tests, and course final.

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2.1 Model of the Atom

Quiz 2.1 Model of the Atom

To do

2.2 Valence Electrons and Electron Filling Rule

Quiz 2.2 Valence Electrons and Electron Filling Rule

To do

2.3 Pre-Lab: Atomic Orbital Model

Quiz 2.3 Pre-Lab: Atomic Orbital Model

To do

2.3 Hands-on Lab: Atomic Orbital Model

Quiz 2.3 Hands-on Lab: Atomic Orbital Model

To do

2.4 Periodic Law and Trends in the Periodic Table

Quiz 2.4 Periodic Law and Trends in the Periodic Table

To do

2.5 Forms of Elements

Quiz 2.5 Forms of Elements

To do

2.6 Hybridization

Quiz 2.6 Hybridization

To do

2.7 PreLab: Hybridization of Orbitals

Quiz 2.7 PreLab: Hybridization of Orbitals

To do

Unit 2 Lab Assignment: Hybridization of Orbitals

To do

Unit 2 Test

Not available unless: The activity Quiz 2.1 Model of the Atom is marked complete ...

Show more

Unit 3: Chemical Compounds and Bonding

This unit introduces you to chemical compounds and bonding. You will learn what chemical compounds are, how they are formed, and their makeup. This includes examining ionic and covalent compounds, as well as various types of chemical bonds. You will learn how to write chemical formulas and balance chemical equations.

Unit 3 has TWO lab assignments. There is a pre-lab lesson before each lab assignment to help you prepare. There are questions in the unit test related to the two labs. Complete ALL the work in Unit 3 before moving to Unit 4.

Note: To access the Unit 3 test, you MUST have completed all Unit 3 quizzes AND received a grade for the Unit 1 Lab Assignment. If you have not submitted your Unit 1 Lab, go back and do it.

Unit 3 Study Guide

This study guide will help you preview the concepts and guide your learning as each new skill or concept is introduced. Use this study guide as the foundation of your notes. You may use it on the unit quizzes, unit tests, and course final.

Click on the link above, and make a copy of the file; it will open in Google Docs. If you don't have access to Google Docs, copy the URL into a new browser window, remove "Copy" at the end of the URL, and replace it with "View". From the File Menu, select Download and choose a format you prefer.

3.1 Types of Bonds - Ionic and Covalent

Quiz 3.1 Types of Bonds - Ionic and Covalent

To do

3.2 PreLab: Properties of Ionic and Covalent Compounds - Electrical Conductivity

Quiz 3.2 PreLab: Properties of Ionic and Covalent Compounds - Electrical Conductivity

To do

Unit 3 Lab Assignment: Electrical Conductivity

To do

3.3 Writing Chemical Formulas for Ionic Compounds & Polyatomic Ions

Quiz 3.3 Writing Chemical Formulas for Ionic Compounds & Polyatomic Ions

To do

3.4 Writing Chemical Formulas for Molecular Compounds, Polar and Nonpolar Molecules

Quiz 3.4 Writing Chemical Formulas for Molecular Compounds, Polar and Nonpolar Molecules

To do

3.5 Writing and Balancing Chemical Equations

Quiz 3.5 Writing and Balancing Chemical Equations

To do

3.6 Synthesis and Decomposition Reactions

Quiz 3.6 Synthesis and Decomposition Reactions

To do

3.7 PreLab: Decomposition

Quiz 3.7 PreLab: Decomposition

To do

3.7 Hands-on Lab: Decomposition

Quiz 3.7 Hands-on Lab: Decomposition

To do

Unit 3 Test

Not available unless: All of: ...

Show more

Unit 4: Chemical Reactions

In this unit, you will learn about different types of chemical reactions, including synthesis, decomposition, combustion, oxidation-reduction, single and double-displacement reactions, and acid-base neutralization.

Unit 4 has one lab. There is a pre-lab lesson before the lab assignment to help you prepare. There are questions in the unit test related to the lab. Unit 4 also has ONE assignment. Complete ALL the work in Unit 4 before moving to Unit 5.

Note: To access the Unit 4 test, you MUST have completed all Unit 4 quizzes AND received a grade for the Unit 2 lab assignment. If you haven't submitted it, please go back and do so now.

Unit 4 Study Guide

This study guide will help you preview the concepts and guide your learning as each new skill or concept is introduced. Use this study guide as the foundation of your notes. You may use it on the unit quizzes, unit tests, and course final.

Click on the link above, and make a copy of the file; it will open in Google Docs. If you don't have access to Google Docs, copy the URL into a new browser window, remove "Copy" at the end of the URL, and replace it with "View". From the File Menu, select Download and choose a format you prefer.

4.1 Combustion Reactions

Quiz 4.1 Combustion Reactions

To do

4.2 Single Displacement Reactions

Quiz 4.2 Single Displacement Reactions

To do

4.3 Oxidation-Reduction

Quiz 4.3 Oxidation-Reduction

To do

4.4 Double Displacement Reactions

Quiz 4.4 Double Displacement Reactions

To do

4.5 PreLab: Double Displacement Reactions

Quiz 4.5 PreLab: Double Displacement Reactions

To do

Unit 4 Lab Assignment: Double Displacement Reactions

To do

4.6 Acid Base Neutralization Reactions

Quiz 4.6 Acid Base Neutralization Reactions

To do

Unit 4 Assignment: Reactions

To do

Unit 4 Test

Not available unless: All of: ...

Show more

Unit 5: Conservation of Matter

In this unit, you will learn about the conservation of matter. You will learn about isotopes, what they are, and their place in the study of chemistry. You will learn about atomic mass and what atomic mass is and practice calculating atomic mass. You will be introduced to Avogadro's number and the mole, learn what it is, and how it is used in chemical equations. Finally, this unit teaches converting between mass, mole, and the number of particles.

Unit 5 has TWO lab assignments. There is a pre-lab lesson before each lab assignment to help you prepare. There are questions in the unit test related to the two labs. Complete ALL the work in Unit 5 before moving to Unit 6.

Note: To access the Unit 5 test, you MUST have completed all Unit 5 quizzes AND received a grade for BOTH Unit 3 labs, if you have not submitted your Unit 3 labs, go back and do them.

Unit 5 Study Guide

This study guide will help you preview the concepts and guide your learning as each new skill or concept is introduced. Use this study guide as the foundation of your notes. You may use it on the unit quizzes, unit tests, and course final.

Click on the link above, and make a copy of the file; it will open in Google Docs. If you don't have access to Google Docs, copy the URL into a new browser window, remove "Copy" at the end of the URL, and replace it with "View". From the File Menu, select Download and choose a format you prefer.

5.1 Avogadro's Number and the Mole

Quiz 5.1 Avogadro's Number and the Mole

To do

5.2 Formula Mass

Quiz 5.2 Formula Mass

To do

5.3 PreLab: Analysis of Hydrates

Quiz 5.3 PreLab: Analysis of Hydrates

To do

5.3 Hands-on Lab: Analysis of Hydrates

Quiz 5.3 Hands-on Lab: Analysis of Hydrates

To do

5.4 Isotopes and Average Atomic Mass

Quiz 5.4 Isotopes and Average Atomic Mass

To do

5.5 Converting Between Mass, Moles and Number of Particles

Quiz 5.5 Converting Between Mass, Moles and Number of Particles

To do

5.6 PreLab: Mole Ratio/ Stoichiometric Ratio

Quiz 5.6 PreLab: Mole Ratio/ Stoichiometric Ratio

To do

Unit 5 Lab Assignment: Mole Ratio

To do

Unit 5 Test

Not available unless: All of: ...

Show more

Unit 6: Chemical Proportions in Compounds

In this unit, you will learn about the chemical proportions in compounds. You will learn about chemical composition and how to calculate the percentage of composition. You will review the empirical formula and learn its importance in the study of chemistry. You will review the molecular formula and how to determine and calculate empirical and molecular formulas from chemical equations. You will also learn to titrate unknown substances and continue to practice converting between units.

Unit 6 has TWO lab assignments. There is a pre-lab lesson before each lab assignment to help you prepare. There are questions in the unit test related to the two labs. Unit 6 also has ONE assignment.

Note: To access the Unit 6 test, you MUST have completed all Unit 6 quizzes AND received a grade for the Unit 4 lab and assignment. If you have not submitted them, go back and do them.

Unit 6 Study Guide

This study guide will help you preview the concepts and guide your learning as each new skill or concept is introduced. Use this study guide as the foundation of your notes. You may use it on the unit quizzes, unit tests, and course final.

Click on the link above, and make a copy of the file; it will open in Google Docs. If you don't have access to Google Docs, copy the URL into a new browser window, remove "Copy" at the end of the URL, and replace it with "View". From the File Menu, select Download and choose a format you prefer.

6.1 Percentage Composition

Quiz 6.1 Percentage Composition

To do

6.2 Titration

Quiz 6.2 Titration

To do

6.3 PreLab: Titration

Quiz 6.3 PreLab: Titration

To do

6.3 Hands-on Lab: Titration

Quiz 6.3 Hands-on Lab: Titration

To do

6.4 Empirical Formula

Quiz 6.4 Empirical Formula

To do

6.5 Determining Empirical Formula by Experiment

Quiz 6.5 Determining Empirical Formula by Experiment

To do

6.6 Molecular Formula

Quiz 6.6 Molecular Formula

To do

6.7 Determining Molar Mass by Titration

Quiz 6.7 Determining Molar Mass by Titration

To do

6.8 PreLab: Determining Molar Mass by Titration

Quiz 6.8 PreLab: Determining Molar Mass by Titration

To do

Unit 6 Lab Assignment: Determining Molar Mass by Titration

To do

Unit 6 Test

Not available unless: All of: ...

Show more

Final Exam

You will have access to the final after you have been enrolled in the course for at least 30 days and when all unit tests are completed, and all your labs and assignments are graded.

Warning: You have only ONE attempt at the final. Are you ready to take the final? We highly recommend taking the practice final first, and if you find any areas weak, review the relevant course material again. You have unlimited attempts at the practice final, which will help you prepare.

Remember, if you want to improve your grade in this course, you need to do that BEFORE you take the final exam.

Good Luck!

Reattempt up to 2 Unit Tests

Review your grade book and decide if you want to reattempt up to two unit tests BEFORE you take the Final. Once you complete the Final, the course is over, and this option will no longer be available.

Not available unless: The activity Unit 1 Test is marked complete ...

Show more

Practice Final

Final Exam

Not available unless: The activity Unit 1 Test is marked complete ...

Show more

Course Completion & Requesting a Transcript

Warning: - If you are waiting for a resubmitted assignment to be graded, do NOT generate any course completion record until the teacher has graded it.

Transcript: - Send a transcript to your school to report the credits you earned. A transcript will list all the courses you have taken with us, including those still in progress.

Course Certificate: - This link cannot be accessed until you have completed the final. Upon satisfying this requirement, the link will become active.

Feedback: - Before you go, we would appreciate your opinion on the course; please take