



Celina High School Course Outline

Physical Science 9 Introductory Physical Science (IPS)

INSTRUCTOR: Mr. Scott

CREDIT: ½ unit elective science, 1 semester length taken concurrently with Biology 9.

DESCRIPTION: This is a laboratory course. About 75% of the class time will be devoted to laboratory work.

PREREQUISITES: Recommendation by 8th Grade science teacher and guidance councilor.

TEXT BOOK: 'Introductory Physical Science', 8th Ed., By Haber-Schaim, Gendel, Kirksey, Pratt; Pub. By Science Curriculum Inc. © 2005.

TOPICS COVERED:

<u>Laboratory Skills of:</u>	
Note taking	Peer Collaboration
Data recording	Data analysis
Observation	Problem Solving
<u>While We Examine the Topics:</u>	
Volume and Mass	Solubility
Characteristic Properties	Chemical & Physical Change
Atoms, Elements & Compounds	Separation of Substances

EVALUATION:

A.	Notebook	50% (definite)
B.	Quizzes	5% (approximate)
C.	Tests	45 % (approximate)

GRADES: Notebooks are only graded twice – at the end of each 9 weeks. Since the notebook is ½ of the 9 weeks grade, any grade update during the 9 weeks will only reflect the average of the test scores.

**Smart is not something you just are;
it's something you get to be.**

Bring to Class EVERY DAY:

- A. Text Book
- B. Notebook
- C. Something to write with (pencil for labs)
- D. Calculator (must be scientific with an "EXP" or "EE" key)

DO EVERY ASSIGNMENT ON TIME!

YOUR CLASSROOM CONDUCT:

- Quiet attention and involvement are expected during lectures, demonstrations, and directions.
- Quiet talking is permitted during labs and seat-work.

LAB AREA

- Follow the rules on the Student Safety Contract
- Leave all equipment alone in the room until directed otherwise by the teacher.
- Only go into the lab area when you are told to.
- Carefully follow all directions for labs and classroom work.

**I DO NOT GIVE LATE SLIPS
YOU MUST WATCH THE CLOCK AND FINISH LABS ON TIME**

Attendance

DON'T BE ABSENT **If you have to be absent, you must:**

REQUEST YOUR HOMEWORK THROUGH THE OFFICE

YOU are responsible for knowing exactly what to expect on whatever day you return.

Write down our weekly schedule to see what you will be expected to do each day.

Being absent does not excuse you from our scheduled activities on the days you are here!

If we have a quiz scheduled the day you return, you should expect to take it.

If we have a test scheduled you should expect to take it.

If we have a lab, you should expect to do it.

If we have homework due you should have it done.

Missed notes:

Don't ask ME for missed notes. I do not use printed notes during lecture. If you want missed notes see your classmates or your lab partner.

Missed Labs:

Nearly all of the learning in this class is a result of doing the experiments. Most of what you are expected to learn is not stated outright in the text, and a student who has been absent is at a severe disadvantage. THEREFORE You must make up all missed labs. You will generally have about a week to do so. Most labs involve prepared materials that take up space in the lab and have limited shelf life once made. Due to the heavy use of my lab space, I will expect you to make up labs in two or three days after they are missed. The scheduling of this should be done your first day back after your absence. **You see me about this, not the other way around.** No lab can be made up after 2 weeks - no exceptions. **YOUR TEST WILL NOT BE POSTPONED DUE TO MISSED LABS.**

Tardies

I start class immediately after the bell has sounded.

If you need to talk to me about anything **THE BEGINNING OF THE PERIOD IS NOT THE TIME.**

If you come in late with no pass there will be consequences that you will not like.

I treat each student differently with regard to this specific issue because each student has different reasons for doing what they do.



NOTEBOOK

Requirements:

1. 3-Ring Binder (1" or 1 ½")
2. 4 Divider sheets with tabs
 - Labs
 - Homework
 - Notes
 - Miscellaneous
3. Your name printed clearly on the outside cover
4. Class name printed clearly on the outside cover
5. No other class materials included
6. All contents must be secured in the notebook
7. Each section must be in chronological order
8. You must NOT USE THE WORDS: "YES" or "NO" to answer any questions.
9. The word "IT" must not be used as the subject of any sentence.

Example Lab Write-up

The Header

1. The title and number are shown at the top of the page.
2. Your name, your partner's name, the date and period must be written as shown.

<i>Experiment 3.8</i> <u><i>The Density of Solids</i></u>	
<i>Sept. 21, 2004</i> <i>Period 2</i>	<i>My Name</i> <i>My Partner's Name</i>

Observations and Questions

It is easy to tell the two cubes apart by handling them. They seem to have different masses although they look similar. Since both cubes look alike, we have designated one as cube "A" and the other as cube "B". Cube "A" is noticeably denser than cube "B".

When comparing the two cubes to the third object, it is not really possible to tell which of the materials are the same.

After measuring the dimensions of each of the three objects and calculating their densities, it is now possible to say that the third object resembles cube "B" with respect to density.

The differences among the densities measured for the different rocks are probably due to either variations in the rock material itself, or measurement uncertainties from student to student.

Text Questions, Blue Dot Questions & Observations

3. Whenever you are asked a question or directed to observe something or do something, you should make an entry into your lab report. These should be done IMMEDIATELY! Do not move on until this is done.
4. Blue Dot Questions are not numbered. These are to be answered with complete sentences. Re-stating the question is not desirable. It is best to make the answer "self contained." In other words, you can tell what the question was from the way you answered it.

The Data

5. All measurements made must be recorded with appropriate units and labels. A label tells what is being measured. These are written into a TABLE that you have drawn in your report. They are recorded IMMEDIATELY and not written on scraps of paper or other “temporary” locations.
6. Data divide into two categories:
- Measurements
 - Calculations
- If from the latter, the entry in the report should show where the calculated figure came from and how it was obtained. One way to do this is shown at the right.

Data

	Cube "A"	Cube "B"	3 rd Object
Length (cm)	1.25	1.25	7.60
Width (cm)	1.25	1.25	2.50
Height (cm)	1.25	1.25	0.60
Volume CM ³ (L x W x H)	1.95	1.95	11.4
Mass (g)	15.14	5.26	30.85
Density (g/cm ³)	7.76	2.70	2.71

Density cube "A" = mass/volume
Density cube "A" = $15.14 \text{ g}/1.95 \text{ cm}^3 = \underline{7.76 \text{ g/cm}^3}$

Density cube "B" = mass/volume
Density cube "B" = $5.26 \text{ g}/1.95 \text{ cm}^3 = \underline{2.70 \text{ g/cm}^3}$

Density 3rd Obj. = mass/volume
Density 3rd Obj. = $30.85 \text{ g}/11.4 \text{ cm}^3 = \underline{2.71 \text{ g/cm}^3}$

Homework

- Homework is assigned on the IPS schedule board and can also be found on Mr. Scott's Chemistry WebSite. www.celinaschools.org/sci
- Homework answers are placed in the “Homework” section of the Notebook.
- Worksheets will be graded in class. Numbered textbook questions will be spot-checked during every chapter test. This section will be looked at carefully when the notebook is graded.
- The primary problem areas are:
 - Missing entries
 - “Yes” / “No” answers
 - Missing calculations
- The deadline for all homework is the “BOLD QUESTION REVIEW DAYS” which will be scheduled the day before each chapter test.
- During the “BOLD QUESTION REVIEW DAYS” you may ask about any of the numbered questions and receive help in answering them.